

ACCOUNTING FRONTIER

The Official Journal of Nigerian Accounting Association (NAA)

Vol. 15, Number 2, December, 2013 ISSN: 0189-1743

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Accounting Frontier

(A bi – annual publication of the Nigerian Accounting Association)

Vol. 15, Number 2,

December, 2013

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All correspondence and submission of Manuscripts should be addressed to:

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The Effect of Global Factors on the Nigerian Stock Market Performance

****Abdulkadir, Rihanat Idowu^a, Olatinwo, Olabanji Abdulhafeez^b, & Etudaiye-Muhtar, Oyebola Fatima^c**

^aUniversity of Ilorin, Nigeria; University Utara Malaysia.

^bFederal University of Lokoja, Nigeria.

^cUniversity of Ilorin, Nigeria; University of Malaya, Malaysia

Abstract

The study examined whether selected global factors influence the performance of the Nigerian stock market. OLS regression analysis was carried out on annual data set covering 2003-2012. The findings which revealed that the US price index have significant effect on the performance of the Nigerian stock market is consistent with the view that stock markets are connected due to financial integration. Exchange rate was also found to be significant while global oil price is insignificant. Based on the evidence obtained that global factors explain performance of the Nigerian stock market, the study concludes that stakeholders should look beyond domestic factors in setting investment policies and external factors should be put into consideration in any economic plan.

Keywords: *Global, Stock Market, Stock Index, Financial Integration, and Performance*

**** Corresponding Author:**

E-mail: riolaq29@yahoo.com

1. Introduction

The importance of the stock market in stimulating economic activities cannot be overemphasized. Financial intermediation takes place through the stock market. Hence, there is need to have a deep understanding of the factors that affect the stock market in order to achieve the desired development of the economy. Stock markets are volatile to a range factors thus performance fluctuate by rising or falling as a result of several internal or external factors. The internal factors

constitutes events that occur within the country and while the external factors are those factors that emanate from outside. These external factors are global events that could impact on the domestic market performance.

The effect of external shocks have been well documented in the literature. The increased globalization of financial markets can serve as explanation for the linkage between global factors and domestic stock market performance. Financial markets have become largely integrated in recent years due to the removal of impositions on foreign inflows into many stock markets across the world. Thus in recent years, there have been a considerable rise in financial flows particularly in developing markets. The consequence of this globalization is that domestic markets become susceptible to internal as well as external shocks resulting from contagion effects.

The study is motivated by the increased integration of financial markets and specifically by the significant crash of the Nigerian stock market majorly felt in year 2008 and 2009. The problem started due to some inherent weaknesses which include: weak corporate governance; lack of discipline leading to unethical practices; lopsidedness in capitalization; concerns about transparency and ineffective market regulation and supervision (Oladipupo, 2010; Osaze, 2011). The fact that this market crash is believed to be aggravated by the global financial meltdown creates the need to examine the effect of global factors on the domestic stock market performance in Nigeria. Okereke (2012) noted that the ill wind of the global meltdown crept into Nigeria in year 2008. Between year 2007 and 2009, market capitalization had dropped by 50.99% and All share index followed the same direction. Prior studies that have examined the factors that influence stock market performance in Nigeria have focused on domestic factors, particularly, macroeconomic factors. There is a dearth of research on how global factors can affect the performance of the Nigerian stock market. The study puts forward three global factors which include US stock market performance, global oil price and exchange rate.

This paper is structured as follows: following this introductory part, section two provides a synthesis of prior related studies. Section three discusses the data and sample covered by the study while section four provides the empirical results from random effects regression. Section five concludes the paper.

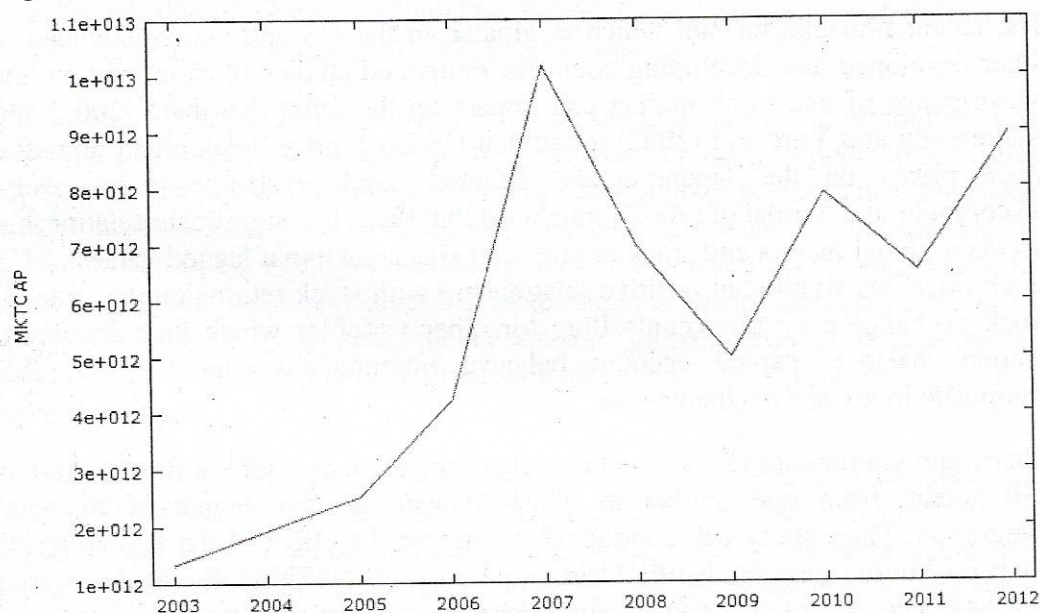
Literature Review and Hypothesis Development

The recent financial turmoil which originated in the US and which extended to other developed and developing countries motivated studies to examine how the performance of one stock market can impact on the other. Kurihara (2006) and Akcoraoglu and Yurdakul (2002) found that US stock price index affect domestic stock prices on the Japanese and Istanbul stock exchanges respectively. Akcoraoglu and Yurdakul (2002) concludes that there is a significant relationship between global factors and stock returns as it was shown that lagged values of US stock price has significant positive relationship with stock returns on the Istanbul stock exchange even after controlling for other variables which include current account balance, capital account balance, international capital flows, ISE composite index and exchange rate.

Cherif and Gammoudi (2012) contends that the extent to which a financial crisis will spread from one market to others depend on the degree of financial integration. Their study was conducted to observe the effect of the US subprime crisis on Middle East and North Africa stock markets (MENA). It was discovered that Morocco, Egypt and Tunisia stock markets are partially immune to external shock. Their findings revealed further that the presence of short run diversification benefits in some of these markets (Kuwait, Jordan & Tunisia) minimize their exposure to risks. In addition, the Gulf Cooperation Council (GCC) markets were shown to be more vulnerable to international shocks in the long run.

The Nigerian stock market experienced a significant crash in years 2008 and 2009, a period which coincided with the period of the global financial crisis (See figure 1). It is widely held that the global crisis was the major cause of the Nigerian market crisis. However, it is indisputable that the market was characterized with inherent weaknesses before the crisis. Thus, there is need to look outside the crisis period to investigate whether performance of a another market can impact on the Nigerian stock market. Therefore, based on the contagion effect documented in literature, it is hypothesized that:

- US stock market performance have significant positive impact on the Nigerian stock market performance

Figure 1: Market Capitalization for the Nigerian Stock Exchange (2003-2012)

Similarly, exchange rate is considered as a risk factor in the performance of a stock market. Akcoraoglu and Yurdakul (2002) noted that the adoption of flexible exchange rate by industrialized nations have increased the risk associated with exchange rate. Thus, a stock market may be affected positively or negatively depending on the direction of exchange rate fluctuation. A positive effect may result from appreciation in the domestic currency and a negative effect may result from currency depreciation. Based on this, prior studies have reported contradictory findings on the relationship between exchange rate and stock returns. Maysami, Lee, and Hamzah (2004) reported positive relationship between exchange rate and performance of Singapore stock market. Contrarily, Akcoraoglu and Yurdakul (2002) found negative relationship between exchange rate and Istanbul stock exchange price index. Naik and Padhi (2012) found exchange rate to be insignificant in predicting stock returns on the Indian stock exchange.

Prior studies conducted in Nigeria have also reported mixed findings on the effect of exchange rate. Adaramola (2011) reported a positive relationship while other studies (Asaolu & Ogunmuyiwa, 2010; Izendonmi & Abdullah, 2011; Nnenna, 2012) found exchange rate to be insignificant in explaining stock returns. Based on the fact that change in exchange rate (Nigerian ₦ to US \$) in the last ten years

as depicted in table 1 shows declining value of ₦ to \$, it is expected that this exchange rate will have significant negative effect on the stock market performance through its effect on the firms that trade in the market. Thus it is hypothesized that.

- Exchange rate have significant negative effect on the Nigerian stock market performance.

Table 1: Exchange Rate of Nigerian ₦ to US \$

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Exchange Rate	129.35	133.95	133.2	128.38	127.59	117.82	149	151.65	157	159.63

Source: Datastream

The third global factor to be considered is the global oil price. Oil price shocks affect the economy as a whole including the stock markets. The important role of oil price shocks was reinforced by Hamilton (1983) who observed that most US recessions that occurred after the second world war were preceded by oil shocks. Adebisi, Adenuga, Abeng, and Omanukwue (2010) noted that the impact of oil prices on any economy depends on whether the country is an oil exporter or oil importer. In oil exporting nations, such increase may boost government revenue and lead to increase in profitability of firms, thus affecting the stock market positively. On the other hand, oil price increase translates to increased cost of production of goods and services in oil consuming nations (Lin, Fang, & Cheng, 2009; Onour, 2008), thus may yield negative impact on stock markets. Based on this, empirical evidence have been provided to show how oil price affect stock market performance. Onour (2008) reported that oil price changes prevail as the determinant of aggregate stock prices among the GCC nations. The author argued that oil prices impact on the stock market through its impact on the firms that trade on the market. Increase in oil prices will raise production cost thus having adverse effect on the prospects of higher profitability for these firms. In line with this argument, oil price shocks have been reported to have significant negative impact on stock returns (Adebisi, Adenuga, Abeng, and Omanukwue, 2010). Contrarily, Lin, Fang, and Cheng (2009) reported that oil price shocks have significant positive impact on stock returns in Hong Kong market.

Despite the fact that Nigeria is one of the largest oil producers in the world, the country still import oil. Therefore, we expect that increase in global oil price will have significant effect on firms. Although Adaramola (2011) found oil prices to be positively related to stock prices in Nigeria, however the study observed domestic oil prices and not global. We assume that the direction of the effect

global oil prices will depend on the volume of oil exported or imported at a particular period. Thus it is hypothesized that

- Global oil price have significant effect on the performance of the Nigerian stock market.

Besides these global factors, extant literature indicates that a range of domestic factors can affect the stock market. Weaknesses in the macro-economic environment may impact negatively on the stock market (Acikalin, Aktas, & Unal, 2008). Studies have shown that inflation have significant effect on total stock market transaction (Akpan, Inya-agma, Aya, 2011; Ali, 2011; Maysami, Howe & Hamzah, 2004; Naik & Padhi, 2012). However, the direction of this evidence is mixed. It is widely believed that growing prices that results from inflation causes lack of financial resources that could be used for investment. In line with this, prior studies (Ali, 2011; Naik & Padhi, 2012; Sirucek, 2012) reported that inflation have negative influence on stock returns on Dhaka, Indian and US stock markets respectively. On the other hand, Maysami et al. (2004) found positive relationship between inflation and stock returns on Singapore stock exchange. The findings of Nnenna (2012) is inconsistent with the above as consumer price index (CPI) was found to be negative and insignificant in explaining stock returns on the Nigerian stock exchange.

In explaining the effect of interest rate on stock market performance, studies have differentiated between the effect of short term and long term interest rate. Long term interest rate have significant negative relationship with stock returns (Maysami et al., 2004; Pallegdara, 2012). However, Maysami et al. (2004) found the short term interest rates have significant positive relationship with stock returns on the Singapore exchange. In contrast to the results obtained for short term interest rate by Maysami et al. (2004), other studies (Naik & Padhi, 2012; Pallegdara, 2012) reported that short term interest rate is insignificant in determining stock prices. Adaramola (2011) and Somoye, Akintoye, and Oseni (2009) also found interest rate to have significant negative influence on stock returns on the Nigerian stock exchange. Real economic activity which is represented by industrial production index have also been shown by prior studies to have significant positive impact on the performance of the stock market through its effect on stock returns (Ali, 2011; Kazi, 2008; Maysami et al., 2004; Naik & Padhi, 2012)

In conclusion, review of prior studies on the factors that impact on stock market remain inconclusive as empirical evidence is mixed. Furthermore, there is little evidence to show the effect of global factors on the performance of the Nigerian stock market. Apart from the study of Nnenna (2012), other studies on factors influencing stock market performance in Nigeria have majorly focused on the domestic factors. Nnenna (2012) examined the effect of LIBOR (London Interbank Offered Rate) and the US federal funds rate on stock return volatility on the Nigerian stock exchange. These two global factors were found to be significant in different directions. While LIBOR was found to have negative impact on stock return volatility, federal funds rate was found to have positive impact on stock return volatility. However, the study differs from Nnenna (2012)'s study as different set of global factors have been examined and the All share index as opposed to stock returns volatility is used to represent stock market performance.

Empirical Model

The study models how global factors (US stock index, global oil price and exchange rate) impact on the performance of Nigerian stock market while controlling for domestic factors.

$$ASI_t = \alpha_0 + \beta_1 S\&P\ 500_t + \beta_2 GLOIL_t + \beta_3 EXCH_t + \beta_4 INT_t + e_t \quad (1)$$

The dependent variable is the Nigerian stock market performance which is represented by All share index (ASI). The main independent variables of interest are the global factors which include the US stock price index (S&P 500), the global oil price index (GLOIL) and the exchange rate of ₦ to \$. S&P 500 is considered to be the best overall measurement of the American stock market performance (Encyclopaedia Britannica). Domestic variables also influence stock market performance, therefore, interest rate has been incorporated as a control variable.

Data and Methodology

The study focuses on the Nigerian stock market between 2003 and 2012. Annual data was sourced majorly from the DataStream (Thomson Reuter's Worldscope Database). The study examined the impact of global factors on the Nigerian stock market performance while controlling for the domestic factors. Empirical studies have either used stock returns or the stock index to represent stock market performance. In line with the approach of some prior studies, this study will employ the use of All-share index as proxy for the Nigerian stock market

performance. This index provides record on historical performance of the stock market and provide useful information to investors for predicting future trends in the market. The US stock price index (S&P 500), global oil price, and exchange rate of ₦ to \$ will be used as proxies for global factors. The study will also control for domestic factor which also impact on the performance of the stock market. Interest rate have been chosen as proxy for the domestic factor as it has been found to have negative effect on stock returns in Nigeria (Adaramola, 2011; Somoye et al., 2009).

4. Discussion of Findings

The model was estimated using OLS regression analysis. Table 1 below presents the regression results.

Table 1: OLS Regression Results (Dependent variable: ASI (NG Index))

	Coefficient	Std. Error	t-ratio	p-value
Const.	-64498.7	121544	-0.5307	0.61837
S&P 500 (US Index)	7.23745	1.99949	3.6197	0.01523**
Global Oil Price Index	355.034	296.084	1.1991	0.28421
Interest Rate	5634.32	6509.57	0.8655	0.42631
Exchange Rate	-749.17	303.648	-2.4672	0.05672*
*Significant at 10%				
**Significant at 5%				
R-squared	0.815564			
Adjusted R-squared	0.668015			
Durbin-Watson	2.301624			

The results revealed R^2 of 0.8156 which implies that the specified explanatory variables explain about 81.56% of the stock market performance. The Durbin-Watson value of 2.30 indicates that there is no autocorrelation in the estimated equation.

However, only two of the explanatory variables are shown to be significant in explaining stock market performance. Consistent with expectation due to financial market integration, the S&P 500 has a positive coefficient and is significant at 5%

probability level. The implication of this is that the US stock market performance significantly affect the Nigerian stock market performance. This finding is consistent with the findings of Kurihara (2006) and Akcoraoglu and Yurdakul (2002) for Japanese and Istanbul stock markets respectively.

Contrarily, results indicates that the global oil price have no significant impact on the ASI. Although Adaramola (2011) found that oil prices positively affect stock prices on the Nigerian stock exchange, however the study considered domestic and not global oil shocks. The co-efficient of the exchange rate is also positive and significant in explaining the ASI. This can be attributed to the fact that most foreign transactions are expressed in terms of the US dollar, therefore the domestic stock market performance is affected by the rate of Nigerian Naira to the US dollar. Contrary to expectation, result shows that interest rate is insignificant in explaining stock market performance on the Nigerian stock exchange. The findings on interest rate and exchange rate differ from prior studies that observed their effects on stock returns on the Nigerian market. This may be due to the fact that this study employed the use of All share index as opposed to stock returns as a measure of the stock market performance.

5. Summary and Policy Implication

The study examined whether global factors determine the performance of the Nigerian stock market while controlling for domestic factors. Time series data was used over the period 2003-2012. OLS regression analysis indicates that US index and exchange rate are significant in explaining the Nigerian stock market performance.

The findings have important implications for stakeholders. The significant effect of the US stock market index on the Nigerian stock market performance indicates the importance of external shocks and the spill-over effect on the Nigerian economy. Therefore, these external issues should be put into consideration in any economic plan. In addition, investors in the Nigerian market should look beyond domestic factors in ascertaining the exposure of their investment to risk. Similarly, the findings that exchange rate impact on the performance of the stock market indicates that efficient foreign exchange management may enhance the development of the stock market. The present study is limited to few explanatory variables due to data constraints. Inclusion of more variables over a longer period may yield different result.

References

- Acikalin, S., Aktas, R., & Unal, S. (2008). Relationships between stock markets and macroeconomic variables: An empirical analysis of the Istanbul Stock Exchange. *Investment Management and Financial Innovations*, 5(1), 8-16.
- Adaramola, A.O. (2011). The impact of macroeconomic indicators on stock prices in Nigeria. *Developing country studies*, 1(20), 1-14.
- Adebisi, M., Adenuga, A., Abeng, M., & Omanukwue, P. (2010). Oil price stocks, exchange rate and stock market behaviour: Empirical evidence from Nigeria. Retrieved from [http://www. Africa metrics.org/documents/conference09/papers](http://www.Africa metrics.org/documents/conference09/papers).
- Akcoraoglu, A. & Yurdakul, F. (2002). Global factors and stock returns: Empirical evidence from the Istanbul stock exchange. *The ISE Review*, 6(21), 1-20.
- Akpan, S. B., Inya-aga, C. E., & Aya, E. A. (2011). Empirical relationship between stock exchange transactions and key macroeconomic variables in Nigeria. *Journal of Economics and Sustainable Development*, 2(2), 38-46.
- Ali, M. B. (2011). Impact of micro and macroeconomic variables on emerging stock market return: A case on Dhaka stock exchange (DSE). *Interdisciplinary Journal of Research in Business*, 1(5), 08-16.
- Asaolu, T., & Ogunmuyiwa, M. (2011). An Econometric Analysis of the Impact of Macroeconomic Variables on Stock Market Movement in Nigeria. *Asian Journal of Business Management*, 3(1), 72-78.
- Hamilton, J. D. (1983). Oil and the macroeconomy since World War II. *The Journal of Political Economy*, 228-248.
- Kazi, M. H. (2008). Systematic risk factors for Australian stock market returns: a cointegration analysis. *Australasian Accounting Business and Finance Journal*, 2(4), 6.
- Kurihara, Y., & Nezu, E. (2006). Recent stock price relationships between Japanese and US stock markets. *Studies in Economics and Finance*, 23(3), 211-226.
- Lin, C.C., Fang, C.R., & Cheng, H.P. (2009). Relationships between oil price shocks and stock market: An empirical analysis from greater China. Retrieved from <http://proj3.sinica.edu.tw/~tea/images/stories/file/WP0072.pdf>.
- Maysami, R. C., Lee, C. H., & Hamzah, M. A. (2005). Relationship between macroeconomic variables and stock market indices: Cointegration evidence from stock exchange of Singapore's All-S sector indices. *Jurnal Pengurusan*, 24, 47-77.

- Naik, P & Padhi, P. (2012). Interaction of Macroeconomic Factors and Stock Market Index: Empirical Evidence from Indian Data. Retrieved from http://www.papers.ssrn.com/sol3/papers.cfm?abstract_id=2150208
- Nnenna, O. M. (2012). X-raying the impact of domestic and global factors on stock return volatility in the Nigerian stock market. *European Scientific Journal*, 8(12), 235-250.
- Okereke O.N. (2012, May 14). The Nigerian stock market: strategies for recovery, rebound and practical bailout options. *Vanguard*. Retrieved from <http://www.vanguardngr.com>.
- Oladipupo, O. F. (2010). The crash of Nigerian capital market: Explanations beyond the global meltdown. *International Business Management*, 4(2), 35-40.
- Onour, I. A. (2008). What drives short-term GCC stock market returns? Empirical evidence from fat-tailed distribution. *Afro-Asian Journal of Finance and Accounting*, 1(1), 17-25.
- Osaze, E.B.(2011). The historical evolution of the Nigerian capital market. *Proshare intelligent investment*. Retrieved from <http://www.proshareng.com>
- Pallegedara, A. (2012). Dynamic relationship between stock market performance and short term interest rate. Empirical evidence from Sri Lanka. Retrieved from <http://mpira.ub.uni-muenchen.de/40773/>.
- Sirucek, M. (2012). Macroeconomic variables and stock market: US review. *International Journal of computer science and management studies*.
- Somoye, R. O., Akintoye, I. R., & Oseni, J. E. (2009). Determinants of equity prices in the stock markets. *International Research Journal of Finance and Economics*, 30, 177-189.