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Full Length Research Paper

Stock market prices and the random walk hypothesis: Further evidence from Nigeria

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The weak form hypothesis has been pointed out as dealing with whether or not security prices fully reflect historical price or return information. To carry out this investigation with the Nigerian stock market data, we employed the run test and the correlogram/partial autocorrelation function as alternate forms of the research instrument. The results of the three alternate tests revealed that the Nigerian stock market is efficient in the weak form and therefore follows a random walk process. Thus, the opportunity of making excess returns in the market is ruled out.

Keywords: Market efficiency, weak form hypothesis, stock market returns, equity, run test, autocorrelation test.

INTRODUCTION

A stock market is a public market for the trading of company stock and derivatives at an agreed price. The stocks are listed and traded on stock exchanges. The Nigerian stock exchange (NSE) is the center - point of the Nigerian Capital Market, while the Securities and Exchange Commission (SEC) serves as the apex regulatory body. The Nigerian stock exchange was incorporated on September 15, 1960 and it commenced business on June 5, 1961 as the Lagos stock exchange with 19 securities listed for trading. It is a non profit making concern and a private company limited by guarantee. Its excess of income over expenditure or its accumulated reserves are not available for distribution as dividend to the company's shareholders, whose liability is limited to the stipulated amount of shares each has undertaken to contribute in the event of winding up (Nwankwo, 1980:132). In December 5 1977, following the recommendation of the Government Financial System Review Committee of 1976, the Lagos Stock Exchange was renamed and reconstituted into the Nigerian Stock Exchange, with branches established in different major commercial cities of the country. At present there are nine branches of Nigerian Stock Exchange. Each has a trading floor some of which are electronic. The exchange provides a means for trading existing securities and also encourages large - scale enterprises to gain access to public listing. The NSE operates the main exchange for relatively large enterprises and the second tier securities market (SSM) is where listing requirements are less stringent for small and medium scale enterprises. A close comparative observation in the trading activities of the Nigerian stock exchange reveals that the share of government stock from 1963 to 1990 had been overwhelmingly exceeding the industrial equities. But as from 1991 to date the reverse became the case to the extent that conspicuously, as the government stock traded in millions, the industrial equities accelerated to billions. Growth in the government stock stopped increasing in 1986 and started to decrease till data while industrial equities and bonds as well as Second tier Securities Market (SSM) continued to increase yearly. On the whole, the total number of the listed securities is on the increase. We believe that the deregulation of the economy in 1986 and the privatization of the public sector enterprises in 1988 necessitated this great change. Despite the institutional arrangement and provisions, the Nigerian Capital Market still remains a small proportion of the national economy.

Over the years, the total market capitalization has been increasing but its share of the Gross National Product as well as its proportion of the Gross Fixed Capital Formation has been very small. The proportion of market capitalization to the gross domestic product fluctuated between 5.1 and 24.69%, while its share of the gross fixed capital formation fluctuated between 54 and 27.36%. Apart from 1992 which registered a decline in the proportion of market capitalization to both GDP and GFCF, these proportions increased progressively from

1990 to 1995. From 1996, while its share of GDP fluctuated between 9 and 18.02%, its share of GFCF grew consistently from 10.1 to 27.3%. A continued decline in its share of GDP from 1977 to 1999 could be attributable to a drastic fall in the growth rate of market capitalization, which on the average was 2%. As the market capitalization declined, the gross fixed capital formation and the GDP also declined. The share decline in market capitalization during this period could be associated with the widespread distress in the banking system. In 1998 alone, a total of 26 banks including listed ones were put to liquidation. Further, the repercussion is reflected on the negative growth rate of the Gross Domestic Product (GDP) (-27%) and the Gross Fixed Capital formation (GFCF) (-6%) (Okpara, 2006).

REVIEW OF LITERATURE

The efficiency or inefficiency of securities market has generated a lot controversy over a couple of decades in finance and economics discussions. The fundamental analysts try to study the company's business by publishing various historical financial statements and hence uncovering information about its profitability that will shed light on the value of the stock. The efficient market hypothesis is an express tool that supports the assertion that the stock market leads economic activities since market efficiency ensures that past and available current information is fully reflected in current stock prices, investors cannot usurp any privileged information as to beat the market and make abnormal returns. Thus, in any information - efficient market, past/current levels of economic activity cannot be used to predict present/ future stock prices. Fama (1970) categorizes the three types of efficient markets as weak - form, semi -strong - form and strong form efficient, if the set of information includes past prices and returns only, all public information and even private information.

The strong form of the efficient hypothesis states that current market price reflects all pertinent information including everything that is known whether it is public or private. In other words, the security prices reflect everything that is knowable, anything that a host of investment analysts could possibly uncover using all their talent and all the tools at their disposal. No group of investors has a monopolistic access to information relevant to forming opinion about prices as to make abnormal profit. Under such circumstance, it would be impossible to ferret out any information that is not already discounted in the market price of security (French 1986). Hence, in this form of efficient market hypothesis, it becomes impossible for any investor to make consistent supernormal returns over a long run since information will be equally available to all at the same time. Tape watching, charting and professional investment analyses are a waste of time. In fact, consistently superior performance is absolutely impossible. The strong – form hypothesis encompasses both the weak and semi strong forms. The semi -strong hypothesis contends that the price of any security reflects not only past prices of the security but also all available public information. This information includes both the original raw information about the economy, political news or an individual security and any publicly available analyses or projections made, using the raw data. According to this form, all information contained in the company's financial statements, potential analysis of such information including news release, economic data and so forth are fully reflected by each security price.

The implication of this is that investors will have no generally available source of information that could lead to beat the market. Thus, it is of no use to pore over annual reports or other published data since the market prices adjust instantly to any sort of news carried by such reports or data. The random walk hypothesis otherwise called the weak form of the efficient market hypothesis which we are concerned with, states that current market prices reflect all the information contained in the record of past prices. In other words, all information conveyed in past patterns of a stock's price is impounded into the current price of the stock. It will be useless to select stocks based on information about recent trends in stock prices. The fact that the price of stocks has risen for the past two or four days will give no useful information as what today's or tomorrow's price will be. Thus, tape watchers and chartists who follow the price trend in order to forecast price or determine when to buy and sell the stock are wasting their time. Existence of random walk hypothesis means that there are no regularities or patterns in security prices that repeat themselves over time as to predict future stock prices from past prices. Thus, each price change that occurs in the market is independent of the previous price changes. Because of these independencies, the price movement is said to behave randomly. Magnus (2008) noted that the implication of the efficiency analysis is that all markets can be weak form, but the reverse cannot be the case. The original and analytical empirical work on the random walk theory was done by Louis Bachelier (1900). He was the first to point out that security prices and prices of other speculative commodities follow a random walk. His study was not recognized until Holbrook Working (1934) confirmed the same result. Cowls and Jones (1937) also produced the same result. In 1953 Kendall examined the behaviour of weekly changes in 19 indices of British industrial share prices, spot prices for cotton in New York and wheat in Chicago. He found successive arithmetic differences in British stock price averages to be largely uncorrelated. Other studies in support of the random walk theory include Roberts (1959), Osobrne (1959), Alexander (1961), Moore (1962), Mandelbrot (1964),

Fama (1965), Samuelson (1965), Mandelbrot (1966), Fama and Blume (1966), Niederhoffer and Osborne (1966), Van Horne and Parker (1967), Shelton (1967), Kemp and Reid (1971) Black and Scholes (1973), Jennergren and Korsvold (1975) Wan (1980) and more recently in Nigeria Samuels and Yacout (1981). Of more direct relevance to this study was the study by Samuels and Yacout in 1981 on the Nigerian data. They tested for several correlations in the weekly prices of shares in 21 companies quoted on the Nigerian stock exchange between July 1979. They found a trace of dependence with a one - week lag in only seven shares and a two - week lag in four shares. The absolute mean serial correlation coefficient was 0.146 with one - week lag and 0.086 with a two - week lag. The results of these tests supports the theory that prices follow a random walk. It is however unfortunate that their sample population represented only about 2/10 of the entire listed companies and as such their results were likely to be biased.

The primary data for their study consisting of Monday closing prices of thirty shares recorded in the daily official list of the Nigerian stock exchange using both non - parametric test (Wald-Wolfowitz test and the number of runs test) and parametric estimation test he came to a conclusion that prices of shares quoted on the Nigeria stock exchange follow an unpredicatable part despite the fact that they are being administered. Ayadi (1983) used non - parametric tests in testing the hypothesis that successive weekly price changes are independent in a sample of 30 quoted companies on the Nigerian stock exchange over the period January 1997 to Dec. 1980. His result also supported the weak form efficiency. Ayadi's sample population seems encouraging, yet we shall increase that sample to include almost every registered company. Olowe (1999) using data consisting of an end of the month quoted stock prices of 59 randomly period January 1981 to December 1992 on the Nigeria stock exchange and employing a sample autocorrelation test concluded that the Nigeria stock market appeared to be efficient in the weak form. Olewe's sample population though fair could be said to cover half of the quoted companies over the years and not the entire market or approximately the entire market. Kukah, Amoo and Raji (2006) in order to represent the whole market, focused their study on market indices in local currencies rather than prices of individual stocks. In other words, they used the capitalization weighted index of all listed stocks. Using both parametric and non parametric test in determining the efficiency of the Nigerian stock market according to them, the results of the parametric tests showed that the Nigerian capital market is weak form efficient while the parametric tests showed that the market is not weak - form efficient. In their work, inconsistent answers have left a naïve researcher with inconclusive result.

METHODOLOGICAL FRAMEWORK

The weak form hypothesis as has been pointed out, deals with whether or not security prices fully reflect historical price or return information. Since returns (R_{jt-k}) can be computed from observations on past stock prices, a market where returns are serially correlated would be weak form inefficient. In other words, the hypothesis of weak form efficiency should be rejected if stock returns are serially correlated. It is only when there is absence of serial correlation that the stock market follows a random walk (Olowe 1999). The expected return on the holding of a financial security is usually made up of expected dividends to be declared and the expected capital gains. The capital gain is the difference between the purchase price of the security and the selling price. Thus, in an attempt to predict the expected returns, emphasis is usually laid on the historical returns of the shareholding so that when past data of returns are available, each period's returns for security j is calculated as follows (Umoh, 1993: 108, Olowe, 1999). The discrete compounding formula for determination of returns Rj is given by

$$R_j = \frac{D_{jt} + (P_{jt} - P_{jt-1})}{P_{jt-1}} \; X \; \frac{100}{1}$$

Where;
P_{jt} = the stock market price.
D_{jt} = yearly dividend per share.
P_{jt-1} = stock market price index for period t-1.
R_j = return for security j.

However, to test the hypothesis that the Nigeria stock market is not efficient in the weak form, the study uses the market return to investors (R_t) for the entire stock market listed in the Nigerian stock exchange derived from the log transformation of the price ratio as used by Kokah, Amoo and Joseph-Raji in their work (CBN, 2007) to convert the data into continuously compounded rates rather than using discrete compounding. The formula is given by

$$R_t = Ln\,(P_{jt}/P_{jt-1})$$

Where;
Ln = natural logarithm

The yearly market return is used here for two reasons, namely:

i. Dividend in companies is paid yearly in Nigeria.
ii. The accounting period for companies in Nigeria is 12 months.
Iii The Exchange maintains an all share index formulated in January 1984 (1984 = 100).

Nevertheless, to capture the most current priced activities and returns over time, we also use (average of) the end of the month quoted stock prices of 121 randomly selected securities listed through out the period January, 1984 to December 2006 on Nigerian stock exchange and also the stock market monthly price index for the years 2003, 2004 and 2005 for the 121 listed companies as a supportive alternate test. The monthly stock prices of the entire 121 companies were used to obtain monthly stock returns over the period. The non parametric test, the Run test and a more scientific test - autocorrelation involving correlograms and the Ljung - Box Q - statistics, for a high order serial correlation will also be used on the categorical data to test the random walk hypothesis.

A run is defined as a series of increasing values or a series of decreasing values. The number of increasing or decreasing

values is the length of the run. Given a series of stock price changes, each price change is designated a plus (+) if it represents an increase or a minus (-) if it represents a decrease. The resulting series, for example may look as follows:

A run occurs when there is no difference between the sign of two changes. When the sign of changes differs, the run ends and a new runs begin. Thus, in the above series of pluses and minuses, there are five runs (Chandra: 2005:303). A lower than expected number of runs indicates a market's overreaction to information, while a higher number of runs reflects a lagged response to information" (Poshokwale, 1996). Implicitly, an abnormally high (or low) number of runs indicate evidence against the null hypothesis of a random walk. However, to test a series of price (return) changes for independence, the number of runs in the series is compared to see whether it is statistically different from the number of runs in a purely random series of the same size.

Though in a more restricted case, the standard expected number of runs is usually set at one and the Z values should be negative for non - randomness. This test has the advantage of ignoring the distribution of the data, and does not require normality or constant variance of the data (CBN, 2006).The number - of - run test is given by

$$\text{Mean} = \frac{N(N+1) - \sum_{i=1}^{3} n_i^2}{N}$$

$$\text{Standard deviation} = \frac{\sum n_i^2\{\sum_{i=1}^{3} n_i^2 + N(N+1)\} - 2N\sum_{i=1}^{3} N_i^3 - N^{33})^{1/2}}{\{N^2(N+1)\}^{1/2}}$$

$$Z - \text{Score} = \frac{\sum n_j^{2_2} - n(n + r + \tfrac{1}{2})}{\sqrt{\sum n_i^2(\sum n_i^2 + n(n+1) - 2n\sum n_i^3 - n}}$$

Where;
N = total number of price changes
n = the number of price changes of each sign
That is, $n_i = n_1, n_2, n_0$
n_1 = number of "pluses"
n_2 = number of "minuses"
n_0 = number of "zeros"
r = observed number of runs.

The expectation under this test is that standard (Z) scores obtained fall between the range of -1.96 and +1.96. It is when this happens that successive price changes are said to be independent. In other words, if the null hypothesis of randomness is sustainable, following the properties of the normal distribution, we should expect that Pr $\{(E(K) - 1.96\delta_k \leq K \leq E(K) + 1.96\delta_k) = 0.95$, where K is the number of runs. Autocorrelation refers to the relationship not between two or more different variables but between the successive values of the same variable (Koutsoyianis 1972:200) Autocorrelation can be used to measure the persistence or predictability of the market prices on the basis of past market prices. (Hervey, 1995, Olewe, 1999). Random walk hypothesis implies independent residuals and a unit root which implies that observations (stock prices) vary around a constant mean, with constant variance and are probabilistically independent. The independent hypothesis can be investigated by examining the autocorrelation function (ACF).The ACF shows the pattern of autocorrlations present in the time-series as well as the extent to which current values of the series are related to various lags of the past data. Autocorrelation tests show whether the serial correlation coefficients are significantly different from zero.

In an efficient market, the null hypothesis of zero autocorrelation will prevail. This study tests the hypothesis of weak form efficiency by calculating sample autocorrelations. Sample autocorrelation of lag k according to Olowe (1999) is given by

$$\rho_k = \frac{\sum_{t=k-1} (R_{jt} - \overline{R}_{jt})(R_{jt-k} - \overline{R}_{jt-k})}{\sum_{t=k-1}^{T} (R_{jt-k} - \overline{R}_{jt-k})^2}$$

Where;
ρ_k is the autocorrelation of lag k
R_{jt} is the return on security j at time t
R_{jt} is the average or expected return on security j over period t
R_{jt-k} is the return on security of j at time t-k
R_{jt-k} is the average return on security j over period t-k, and
T is the total number of observations for a lag period of k periods

However, the autocorrelation function is often referred to as the correlogram when we are dealing with only an estimate (return) and the partial autocorrelation function. The correlogram shows the correlation between a variable R_t (return) and a number of past values. The correlogram thus comprises a number of values, one for each order of the lag length examined, which measures the correlation between the lag and the current observation. The partial autocorrelation function is similar to the correlogram except that it looks at the correlation between a particular lag and the current value after the effects of the other lags have been partialled out (Hall, 1994:12). The formula for the correlogram is given by

$$C_i = \frac{\frac{1}{T}\sum_{t=1}^{T-k} (R_{t+k} - R^*)(R_t - R^*_t)^2}{\frac{T}{t=1}\sum_{t=1}^{T} (R_t - R^*)^2}$$

Where;

$$R^* = \frac{1}{T}\sum_{t=1}^{T} R_t$$

C = Correlogram
R_{t+k} = the next periods return
R_t = the present period's return
T = the total number of observation
t = the time period(s)

The partial autocorrelation function is given as the coefficient from a simple autoregression of the form:

$$R_t = A_0 + \sum_{t=1} P_i R_{t-i} + u_t$$

Where; Pi is the estimate of the partial autocorrelation function, and

Table 1. Npar tests.

	RT
Test value[a]	35.2000
Cases < Test value	11
Cases >= Test value	12
Total cases	23
Number of runs	8
Z	-1.701
Asymp. sig. (2-tailed)	.089

a. Median.

Table 2. Runs test 2.

	RT
Test value[a]	32.8435
Cases < Test value	11
Cases >= Test value	12
Total cases	23
Number of runs	8
Z	-1.701
Asymp. sig. (2-tailed)	.089

a. Median

Ao is a constant while ut is the error term. The results from the three tests which may contradict or reinforce themselves will be used to analyze the efficiency condition of the Nigerian stock market. The reason for this alternate – form method is to ascertain the reliability or validity of the result. This work will make different from others for the following reasons: Apart from using alternate methods to make inferences, rich set of data on 121 listed companies is used. Thus, the population is sizable enough to draw conclusion from.

ESTIMATION AND ANALYSIS OF DATA.

The test of weak form efficiency of the Nigerian stock market (from 1984-2006) using run test is conducted and the results are presented in Table 1 as follows.

Interpretation of results

The z scores (z = -1.701) falls between the range of -1.96 and +1.96 and it is statistically insignificant for a two tailed test for both mean and median (8.9 > 5%). This shows that the successive price changes are independent and thereby supporting the assertion that the Nigerian stock market follows a random walk process since 1984 to 2006. The Run Test of the stock market monthly price index for the Years 2003, 2004, and 2005 for 121 listed companies were tested to determine whether the yearly result was a chance occurrence. For 2003, the z scores for the mean (z = 0) and median (z = -0.575) fall between the range -1.96 and +1.96 and they are statistically insignificant for a two tailed test for mean, (100 > 5%) and for median (56.5 > 5%). In 2004, the z scores for the mean (z = 0) and the median (z = -0.908) fall between the range -1.96 and +1.96 and it is not statistically significant for a two tailed test. While in 2005, the z scores for the mean (z = -1.955) and the median (z = -0.908) fall between the range -1.96 and +1.96 and these scores are insignificant for a 2 - tailed test at 5 percent critical level. Since for the mean, 5.1 > 5% and for the median, 36.4 > 5%.The results therefore support the fact that the successive price (return) changes are independent thereby lending credence to the assertion that the Nigerian stock market follows a random walk process and is therefore weak - form efficient. To ascertain the reliability or validity of this test, we also employ the autocorrelation test. The results of the autocorrelation and partial correlation obtained from correlogram are shown in Table 2.

The Table 3 shows the autocorrelation coefficients computed through correlogram of the discrete compounded return series. The data displayed insignificant autocorrelation pattern at 5 percent level while exhibiting some periodic inconsistency in temporal dependence. For example, lag 1, 5, 8, 11 and 12 exhibited positive autocorrelation while lags 2 - 4 and others have negative autocorrelation. From the above results, since all the autocorrelations and partial autocorrelations at all lags have their Q - statistics insignificant (Prob. > 5%), we say that P_k is not significantly different from zero and therefore accept the existence of weak form hypothesis in the Nigerian stock market. Thus, the prices and returns in the Nigeria stock market follow a random walk process. This situation suggests that the opportunity to make excess returns does not exist in the Nigeria stock market. The following graphs of the returns on Figure 1 and 2 indicate that the Nigerian stock market follows a random walk process.

The results of the retest of the autocorrelation using average monthly returns for the years 2003, 2004, and 2005 of the registered companies also show that the autocorrelations and partial autocorrelations at all lags are nearly zero, and all the Q statistics are insignificant. The results therefore support the fact that there is no serial correlation in the residuals and hence, the random walk process exists in the Nigerian stock market. The implication of these results is that it seems reasonable to assume that security returns data are independent. This implies that the Nigerian stock market appears to be efficient in the weak form, suggesting that the opportunity to make excess return does not exist in Nigerian stock market. This work, irrespective of its difference in time scope, volume of data or population coverage and analytical approach, the result lends support to the work of Samuels and Yacout (1981), Ayadi (1984), Olowe

Table 3. Test of weak form hypothesis using autocorrelation and partial correlation.

Auto correlation	Partial correlation		AC	PAC	Q - Stat.	Prob.
. |**. |	. |**. |	1	0.230	0.230	1.3830	0.240
. *| . |	.**| . |	2	-0.183	-0.249	2.2961	0.317
. *| . |	. | . |	3	-0.134	-0.027	2.8106	0.422
. *| . |	.**| . |	4	-0.183	-0.206	3.8203	0.431
. |* . |	. |**. |	5	0.119	0.215	4.2713	0.511
. | . |	.**| . |	6	-0.017	-0.240	4.2812	0.639
. *| . |	. *| . |	7	-0.188	-0.071	5.5516	0.593
. | . |	. | . |	8	0.009	0.016	5.5550	0.697
. *| . |	.**| . |	9	-0.125	-0.196	6.1945	0.720
. *| . |	. *| . |	10	-0.125	-0.124	6.8898	0.736
. | . |	. *| . |	11	0.001	-0.060	6.8898	0.808
. | . |	. | . |	12	0.030	0.037	6.9354	0.862

Date: 01/26/09 Time: 11:44; Sample: 1984 – 2006; Included observations: 23

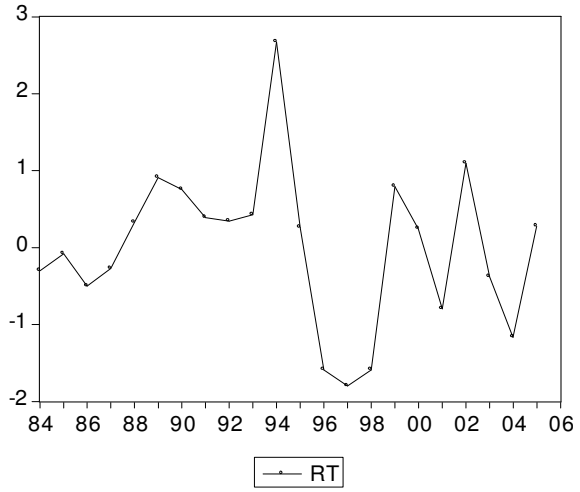

Figure 1. Yearly returns.
Source: Stock market yearly price index (1984 - 2006).

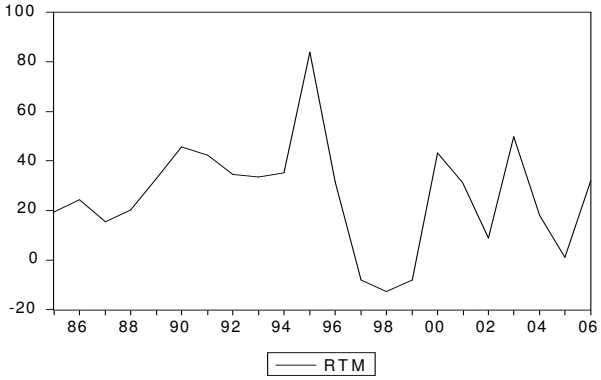

Figure 2. End of the month average returns.
Source: Stock market yearly price index (1984 - 2006).

(1999) and the run test of Kukah et al. (2007).

Conclusion

The Nigerian stock market is efficient in the weak form and therefore follows a random walk process. This implies that all information conveyed in past patterns of a stock's price is impounded into the current price of the stock. It will be useless to select stocks based on information about recent trends in stock prices. The fact that the price of stocks has risen for the past two or four days will give no useful information as what today's or tomorrow's price will be. Thus, tape watchers and chartists who follow the price trend in order to forecast price or determine when to buy and sell the stock are wasting their time. Thus, the opportunity of making excess returns in the market is ruled out.

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Appendix

Year	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Shaindex	105.5	128.4	163.8	190.6	233.6	325.3	513.8	784 1	107.6	1548.8	2205
Rtm	-	19.6	24.3	15.3	20.2	33.1	45.7	42.3	34.5	33.5	35.3
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
5092.2	6992.1	6440.5	5672.8	5266.4	8111.0	10963.1	12137.7	19942.8	23844.5	24085.8	33189.3
83.7	31.7	-8.2	-12.7	-8.2	43.2	31.4	8.9	49.7	17.9	1	32.1

Sources: (1) Nigerian Stock Exchange. (2) Personal computation (for monthly, yearly and end of the month average returns).

The Nigerian stock exchange all share index month - end value (1984 - 2006).

MONTH	1984	1985	1986	1987	1989	1988	1990	1991
January	106.9	106.9	143.6	166.9	190.8	240	343	528.7
February	106.1	111.2	139.7	166.2	191.4	251	249.3	557.9
March	107.2	113.4	140.8	161.7	195.5	259.9	356	601
April	106.8	115.6	145.9	157.5	201	257.5	362	625
May	104.5	116.9	144.2	154.2	199.2	257.1	382.3	648.9
June	104.3	116.3	147.4	196.1	206	259.2	417.4	651.8
July	105	117.2	150.9	193.4	211.5	269.2	445.4	688
August	107	116.9	151	193	217.6	281	463.6	712.1
September	104	119.1	155	194.9	223.8	279.9	468.2	737.3
October	102	124.6	160.9	194.8	228.5	298.4	480.3	757.5
November	103.4	127.3	163.6	193.6	231.4	311.2	502.6	769
December	105.5	128.4	163.8	190.6	233.6	325.3	513.8	784

MONTH	1992	1993	1994	1995	1996	1997	1998	1999
January	794	1113.4	1666.3	2285.33	5135.07	7668.28	6435.62	5494.77
February	810.7	1119.9	1715.3	2319.77	5180.36	7699.28	6426.17	5376.48
March	839.1	1131.1	1792.8	2551.13	5266.2	8661.38	6298.5	5456.22
April	844	1147.3	1845.8	2785.49	5412.35	8729.79	6113.9	5336.52
May	860.5	1186.7	1875.5	3100.79	5704.12	8592.32	6033.9	4916.21
June	870.8	1187.5	1919.1	3596.17	5798.72	8459.29	5892.08	5977.89
July	893.3	1188.8	1926.3	4314.27	5919.43	8148.8	5817.03	4964.34
August	969.3	1195.5	1914.1	4664.61	6140.95	7681.99	5795.71	4946.16
Sepember	1022	1217.3	1956	4858.06	6501.88	7130.79	5697.67	4890.77
October	1076.5	1310.9	2023.4	5066.01	6634.78	6554.77	5671	5032.45
November	1098	1414.5	2119.3	5095.16	6775.61	6395.76	5688.19	5133.2
December	1107.6	1548.8	2205	5092.15	6992.1	6440.51	5672.76	5266.43

MONTH	2000	2001	2002	2003	2004	2005	2006
January	5752.9	8794.22	11031.95	13210.11	22712.88	23073.79	23679.44
February	5955.73	9180.53	10644.75	13623.36	25169.29	21953.5	23842.99
March	5966.24	9159.83	11557.15	13762.5	22965.97	20682.37	23336.6
April	5892.79	9591.58	11669.13	13390.09	26205.2	21961.7	23301.22
May	6095.35	10153.79	11657.11	14002.21	27505.64	21482.08	24745.66
June	6466.72	10937.26	12618.82	14537.8	29098.89	21564.78	26161.15
July	6900.73	10576.43	12737.88	13992.86	27062.13	21911	27880.5
August	7394.05	10328.95	13005.05	15813.07	25076.12	22935.36	33096.37
Sepember	7298.88	10274.16	12451.83	16252.67	22739.68	24635.91	32554.6

Table continued.

October	7415.34	10091.44	12007.92	18874.21	23526.13	25873.81	32643.68
November	7141.43	11169.57	11628.19	20268.15	24155.43	24355.85	31632.54
December	8111.01	10963.11	12137.72	19942.84	23844.45	24085.76	33189.3