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Full Length Research Paper

Is insurance Nigeria's next capital market 'honey pot'? An investigation using daily stock data

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For many years only few of the insurance companies in Nigeria were quoted on the Nigerian Stock Exchange (NSE). Those that did were regarded as penny stocks and were not well patronized. Majority prefer to be outside the exchange where the duty of information disclosure is less stringent. However, in 2005 the regulatory authority raised the capital requirement by more than 1000 multiples of the previous level. Unlike the previous recapitalizations when insurance companies had always found a way to meet the recapitalization exercise without actually recapitalizing, the 2005 exercise forced a lot of the companies to either go to the stock exchange or else merge with those that did. Since then, investors' interest in insurance stocks seems to have been kindled. Using daily listing on the NSE to compare the pre-consolidation performance of Nigeria insurance companies with their post consolidation performance, the study shows that there is a stable and upward movement in price of insurance stock.

Key words: insurance stock, recapitalization, pre-consolidation, post-consolidation.

INTRODUCTION

A cursory look at the daily listing of the Nigerian Stock Exchange appears to show that investors have developed an interest in insurance stocks as the latter seem to now drive stock activities and lead other equities traded on the exchange. This is contrary to the trend witnessed before the 2005 recapitalization of insurance companies in Nigeria when insurance stocks were regarded as "penny stocks" with low dividend yields (Punch, 2008).

Investors' previous disposition to insurance stocks was not without justification. Prior to 1961 when the first piece of insurance legislation was promulgated in Nigeria, insurance was an all-comers' business. Some investors with little or no training in insurance set up insurance companies purely as business opportunities (Business day, 2008). The issue of getting quoted on the NSE so as to be able to raise more funds was obviously not material to this objective. Many of these early-comers, it would appear, found this arrangement convenient as they did not have to make the requisite information disclosures to the public, which being quoted on the capital market would entail.

However, following the momentous jump in the capital requirement from N200 million to N2 billion, for life insurance companies, and from N300 million to N3billion for general insurance companies in the 2005 recapitalization, there was no longer room for small operators. More companies were forced to merge and/or go to the capital market. Coincidentally, investors' perception of insurance stock seems to be changing. Ighomwenghian's (2008) remark that discerning investors have since identified insurance stocks as the next investment destination since most of the players are growth stocks guaranteeing impressive returns is a pointer to this new direction. More insurance companies have now been quoted on the exchange and there seems to be a high level of interest in the insurance stocks and therefore a high level of trading in them.

The paper uses the daily listing on the stock exchange to compare and contrast the pre-consolidation performance of insurance companies listed on the stock exchange with the post consolidation performance. We interpret the statistics that emerge from the changes in price movements following the recapitalization. Our results have implications for policy formulation.

Review of related literature

Studies abound in the literature in which price movement

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around significant events are examined in order to glean something about the volatility of the price. The event could be the arrival of new information about payoff streams and discount rates (Allen and Gale, 1994) or some other news. Price changes may also be attributed to psychological factors including investor overreaction to earnings, dividends or other news, waves of social optimism or pessimism, fashions or fads (Shiller, 1987). Generally both good and bad news tend to have similar effect on stock return as the volatility tends to rise following such news (Braun et al., 1995). Lockwood and Linn (1990) examined market volatility between dates of important structural changes in financial markets, such as the introduction of NASDAQ in 1971 and the standardized stock options in 1973 among others.

Chang et al. (2002) expanded the informational linkage between the option and stock markets by integrating quote returns and trades into their analysis. According to these authors, the market, on receipt of the signal, updates its beliefs regarding not only the asset value, but also the precision of the signal; specifically the market associates lower precision with extreme news. Aggarwal et al. (1999) used a procedure based on iterated cumulative sum of squares to examine whether global or local events are more important in causing major shifts in emerging markets' volatility. They found periods of high volatility to be associated with important events in each of the country included in their study.

Many of the previous studies focused on the long term behaviour of the stock market (Shiller, 1987; Anthony, 1988; Schwert, 1990; Chan et al., 2002; Easley et al., 1998; Hasbrouck 1991; Leroy, 1989; Subramanyam (1996). Schwert (1990), for instance, analyzed the behaviour of stock return volatility using daily data from 1885 to 1988. The study compares and contrasts the 1987 crash with previous crashes. This long term perspective, argued Rappoport and White (1993), explained many of the conflicts in the literature particularly about whether bubbles and fads do occur.

Such extensive analysis may, however, hardly be undertaken in developing economies simply because the financial markets are not developed. In Nigeria, for instance, stock data spanning decades are unavailable because the exchange only came into existence after independence in 1960. More than that however, many of the companies listed on the exchange do not send returns to the exchange as required. In spite of these constraints, the phenomenon of news -induced rise in volatility, or what is commonly referred to as predictive asymmetry of second moments, can be modeled for individual stocks just as for market indices (Braun et al. op. cit.). Also models can be constructed not only in case of long-term market behaviour but also for brief episodes (Rappoport and White op. cit.). An event like the 2005 recapitalization of the insurance industry therefore presents an opportunity to examine recent insurance stock price movements in the capital market in Nigeria.

Data description

The data for this study were derived from the daily closing prices of the Nigerian Stock Exchange, specifically from the stock price history subdivision of the website "cscsnigerialtd.com". Although twenty- six insurance companies were listed on the exchange some of them like Amicable, Baico, Confidence, Guinea, Security Assurance and Sun Insurance did not survive the last two consolidation exercises. They are still listed on the Exchange because of on-going winding-up procedure. They were therefore excluded from the analysis. Some others like International Energy Insurance, Equity Assurance, Oasis, Sovereign Insurance and Staco are just being listed for the first time after the last consolidation and would therefore not qualify as candidates for a pre-consolidation/post-consolidation comparison. The outcome is a list of 14 underwriting insurance companies obtained by purposive sampling; since only the listed insurance companies that satisfied the objective of the study were considered. To have a complete picture of how the entire underwriting and reinsurance industry is affected the stock of one of the two surviving reinsurance companies was also included in the analysis. The study covered the period from 2006 – 2007, that is immediately preceding the consolidation and immediately following the recapitalization. It coincides with an era when the Stock Exchange was being restructured for better output and also with the period when sweeping reforms in many of the financial institutions in the country were being carried out. The companies analyzed are displayed in column 1 of Tables 1 – 4.

METHOD OF ANALYSIS

Descriptive statistics are used for this study. The advantages of this are two-fold. First, descriptive procedures are useful for obtaining summary comparisons of a variable which can be easily understood by majority of the stakeholders. This is important in order to win more investors into buying insurance stocks. Second, they are useful in easily identifying unusual cases. In addition to the measures of central tendency like mean, median and mode we also utilize statistics such as skewness, kurtosis, and coefficient of variation; kurtosis and skewness because they characterize the shape and symmetry of the distribution and coefficient of variation because it allows one to compare the amount of variance in two or more variables that are measured in different units. Finally, we also examined the volatility of the data so as to relate the standard deviation of the change in value of a financial statement with a specific time horizon and to help in quantifying the risk of the instrument over the time period of the study.

The results of our analysis on the foregoing bases are presented in Tables 1 through 4. Table 1 provides the summary statistics of the closing prices for the pre-conso-

Table 1. Statistics of daily stock prices of quoted insurance stocks before consolidation.

	Mean	Standard Error	Median	Standard Deviation	Sample variance	Kurtosis	Skewness	Range	Coefficient of variation	Minimum	Maximum
Continental_Re	3.34	0.08	3.33	0.25	0.06	-0.75	0.32	0.78	7.49	3	3.78
Cornerstone	1.36	0.04	1.32	0.55	0.3	6.8	2.62	2.82	40.44	0.89	3.71
Lasaco	1.39	0.13	0.9	0.96	0.91	2.31	1.61	4.41	69.06	0.58	4.99
Linkage	1.98	0.12	1.45	0.8	0.64	-1.23	0.79	2.25	40.4	1.14	3.39
Royal_Exchange	2.89	0.05	2.91	0.56	0.31	2.43	2.83	5.7	19.38	1.3	7
Wapic	3.48	0.08	3.1	0.98	0.95	5.03	2.27	6.07	28.16	1.21	7.28
Acen	0.96	0.01	1.00	0.08	0.01	3.81	-1.95	0.49	8.49	0.66	1.15
Aiico	2.11	0.02	2.39	0.34	0.11	-1.24	-0.51	1.45	16.06	1.30	2.75
Law Union & Rock	1.43	0.01	1.58	0.22	0.05	0.17	-1.15	0.83	15.70	0.83	1.66
Mutual Ben	0.74	0.01	0.72	0.08	0.01	2.12	-0.06	0.52	11.03	0.44	0.96
Nem	0.90	0.01	1.02	0.19	0.04	-0.73	-1.09	0.48	21.56	0.54	1.02
Niger	2.85	0.02	2.78	0.39	0.15	-1.22	0.08	1.71	13.55	2.09	3.80
Prestige	2.90	0.03	2.80	0.46	0.21	-0.98	0.38	1.57	15.75	2.06	3.63
Standard Alliance	1.21	0.01	1.30	0.15	0.02	0.11	-1.13	0.72	12.15	0.79	1.51
Unic	1.40	0.02	1.31	0.25	0.06	9.04	2.83	1.50	17.71	1.12	2.62

Table 2. Statistics of rate of return in daily stock prices of quoted insurance stocks before consolidation.

	Mean	Standard Error	Median	Standard Deviation	Sample Variance	Kurtosis	Skewness	Range	Coefficient of variation	Minimum	Maximum
Continental_Re	0.99	0.03	0.96	0.09	0.01	-0.69	0.25	0.27	9.09	0.87	1.14
Cornerstone	1.03	0.03	1.00	0.31	0.09	36.44	5.17	3.20	30.10	0.30	3.50
Lasaco	1.12	0.08	1.00	0.60	0.36	5.42	2.23	3.04	32.14	0.31	3.35
Linkage	1.07	0.06	1.00	0.41	0.16	2.60	1.48	1.83	38.32	0.43	2.25
Royal_Exchange	1.02	0.02	1.00	0.24	0.06	12.28	2.48	1.96	23.53	0.34	2.29
Wapic	1.02	0.02	1.00	0.22	0.05	19.63	3.21	1.90	21.57	0.42	2.32
Acen	1.00	0.00	1.00	0.02	0.00	32.37	-2.24	0.19	1.50	0.86	1.05
Aiico	1.00	0.00	1.00	0.03	0.00	11.80	-1.55	0.25	2.72	0.80	1.05
Law Union & Rock	1.00	0.00	1.00	0.03	0.00	63.18	-5.51	0.35	2.73	0.70	1.05
Mutual Ben	1.00	0.00	1.00	0.04	0.00	128.05	-9.56	0.57	3.60	0.52	1.09
Nem	1.00	0.00	1.00	0.01	0.00	10.74	2.88	0.08	1.08	0.96	1.05

Table 2. Contd

Niger	1.00	0.00	1.00	0.04	0.00	9.12	-1.16	0.43	3.86	0.74	1.17
Prestige	1.00	0.00	1.00	0.03	0.00	11.69	-1.60	0.28	3.09	0.77	1.05
Standard Alliance	1.00	0.00	1.00	0.04	0.00	40.64	-1.57	0.63	3.88	0.67	1.30
Unic	1.00	0.00	1.00	0.03	0.00	-0.34	-0.03	0.18	3.16	0.92	1.09

Table 3. Statistics of daily stock prices of quoted insurance stocks post consolidation.

	Mean	Standard Error	Median	Standard Deviation	Sample Variance	Kurtosis	Skewness	Range	Coefficient of variation	Minimum	Maximum
Continental_Re	3.49	0.15	3.83	1.09	1.19	-0.65	-0.70	3.80	31.23	1.32	5.12
Cornerstone	3.26	0.09	3.41	1.01	1.01	-0.13	-0.77	4.04	30.98	0.95	4.99
Lasaco	2.48	0.08	2.79	0.86	0.73	-0.80	-0.43	3.28	34.68	0.90	4.18
Linkage	3.19	0.11	3.50	1.12	1.25	-0.79	-0.37	4.41	35.11	0.99	5.40
Royal_Exchange	4.20	0.08	4.20	0.88	0.77	2.10	-0.99	5.05	20.95	0.95	6.00
Wapic	7.38	0.10	7.80	1.15	1.32	2.06	-1.53	6.04	15.58	3.09	9.13
Acen	0.95	0.00	0.95	0.00	0.00	-2.02	1.01	0.00	0.00	0.95	0.95
Aiico	3.81	0.04	3.55	0.62	0.38	-0.60	0.50	2.91	16.29	2.38	5.29
Law Union & Rock	3.81	0.07	3.98	1.11	1.23	-0.15	-0.31	4.84	29.10	1.58	6.42
Mutual Ben	3.28	0.07	3.39	1.11	1.24	0.00	-0.61	4.88	33.96	0.72	5.60
Nem	3.18	0.08	3.21	1.31	1.72	-0.65	0.21	5.30	41.27	1.02	6.32
Niger	4.76	0.06	4.50	0.97	0.93	2.97	1.57	5.70	20.33	3.00	8.70
Prestige	6.58	0.10	6.50	1.63	2.65	0.73	0.66	8.11	24.74	3.46	11.57
Standard Alliance	3.82	0.06	3.98	0.99	0.98	0.19	-0.52	4.65	25.88	1.24	5.89
Unic	3.71	0.05	3.60	0.71	0.51	-0.44	0.13	3.48	19.27	2.03	5.51

Table 4. Statistics of rate of return in daily stock prices of quoted insurance stocks post consolidation.

	Mean	Standard Error	Median	Standard Deviation	Sample Variance	Kurtosis	Skewness	Range	Coefficient of variation	Minimum	Maximum
Continental_Re	1.01	0.02	1.02	0.14	0.02	6.39	0.11	0.96	13.86	0.50	1.47
Cornerstone	1.05	0.04	1.01	0.41	0.17	38.88	5.72	3.82	39.05	0.24	4.06
Lasaco	1.03	0.02	1.00	0.22	0.05	13.95	2.51	2.03	21.36	0.35	2.38
Linkage	1.02	0.03	1.01	0.26	0.07	23.91	2.88	2.86	25.49	0.01	2.87

Table 4. Contd

Royal_Exchange	1.05	0.03	1.00	0.37	0.14	34.85	4.89	3.78	32.24	0.23	4.01
Wapic	1.02	0.02	1.00	0.19	0.04	35.39	4.38	2.16	18.63	0.40	2.56
Acen	1.00	0.00	1.00	0.00	0.00	25.56	3.42	0.00	0.00	1.00	1.00
Aiico	1.00	0.00	1.00	0.03	0.00	-0.05	-0.33	0.19	3.42	0.86	1.05
Law Union & Rock	1.01	0.00	1.00	0.04	0.00	-1.30	-0.26	0.14	3.72	0.91	1.05
Mutual Ben	1.01	0.00	1.01	0.04	0.00	-1.44	-0.35	0.10	3.68	0.95	1.05
Nem	1.01	0.00	1.01	0.04	0.00	-1.37	-0.29	0.18	3.94	0.91	1.10
Niger	1.00	0.00	1.00	0.04	0.00	2.19	-0.82	0.27	4.00	0.78	1.05
Prestige	1.01	0.00	1.00	0.04	0.00	-1.37	-0.20	0.12	3.72	0.93	1.05
Standard Alliance	1.01	0.00	1.00	0.04	0.00	-1.44	-0.18	0.15	3.89	0.95	1.10
Unic	1.00	0.00	1.00	0.04	0.00	-1.30	-0.04	0.18	3.94	0.94	1.13

lidation period while Table 2 gives the summary statistics of the rate of returns for the pre-consolidation period. The corresponding tables for the summary statistics of the closing prices and the rate of returns for the post-consolidation period are given in Table 3 and Table 4 respectively.

We also presented a graphical analysis of the statistics to show the trend in stock prices and the trend in rate of return pre- and post- consolidation. For the sake of space, however, we have only constructed the graphs for the first six entries. A glance at the entries in Tables 1 – 4 easily shows that similar patterns would be exhibited by the remaining entries and this justifies the use of the chosen entries.

RESULTS

Tables 1 and 3 contain descriptive statistics of the prices of the stocks used in the study, while Tables 2 and 4 include the descriptive statistics of the rate of returns of the insurance stocks for the same period. The pre-consolidation averages of the stock prices for the quoted companies in the order they appear in Table 1 are 3.34 for Continental Re, 1.36 for Cornerstone, 1.39 for Lasaco, 1.98 for Linkage Assurance, 2.89 for Royal Exchange Assurance, 3.48 for Wapic, 0.96 for Acen, 2.11 for Aiico, 1.43 for Law Union and Rock, 0.74 for Mutual Benefits, 0.90 for Nem, 2.85 for Niger, 2.90 for Prestige, 1.21 for Standard Alliance, and 1.40 Unic, while the corresponding post-consolidation prices averaged 3.49, 3.26, 2.48, 3.19, 4.20, 7.38, 0.95, 3.81, 3.81, 3.28, 3.18, 4.76, 6.58, 3.82 and 3.71 respectively. These represent ordered positive appreciation of 4, 139, 61, 45, 112, 0, 80, 166, 343, 253, 67, 127, 215 and 165% in the respective stock prices of the analyzed companies.

It is worth noting that the minimum stock prices for the insurance companies examined also moved up considerably. For example, the minimum stock price moved from 0.89 to 0.95 for Cornerstones, 0.58 to 0.90 for Lasaco, and 1.21 to 3.09 for WAPIC. These are indications that the investors are experiencing considerable capital appreciation for their investments shortly after the consolidation. Employing a standardized measure of variability (coefficient of variation), we observe that the insurance stocks are more reliable after the consolidation as compared to the pre-consolidation period. The same pattern can also be observed in the rate of returns as returns are more reliable in the post consolidation era compared to the pre-consolidation period.

Next we examine the skewness of the stock in order to determine the direction of movement in the stock prices post consolidation. Generally, the skewness for the stock prices was positive in the pre-consolidation era while the skewness for the post consolidation was negative. The kurtosis indicates that, in the pre-consolidation era, the distributions were leptokurtic compared to the normal but these became much flatter after the consolidation. From Tables 3 and 4, the standard deviation of rate of returns, which measures the volatility for all the analyzed insurance companies, clearly indicates that the insurance stocks are more stable after the consolidation exercise.

The graphs of daily stock prices of the different insurance stocks before consolidation (Figure 1) show that the stocks operate at marginal rate. More significantly the rates were low. However, the corresponding stock figures after consolidation (Figure 2)

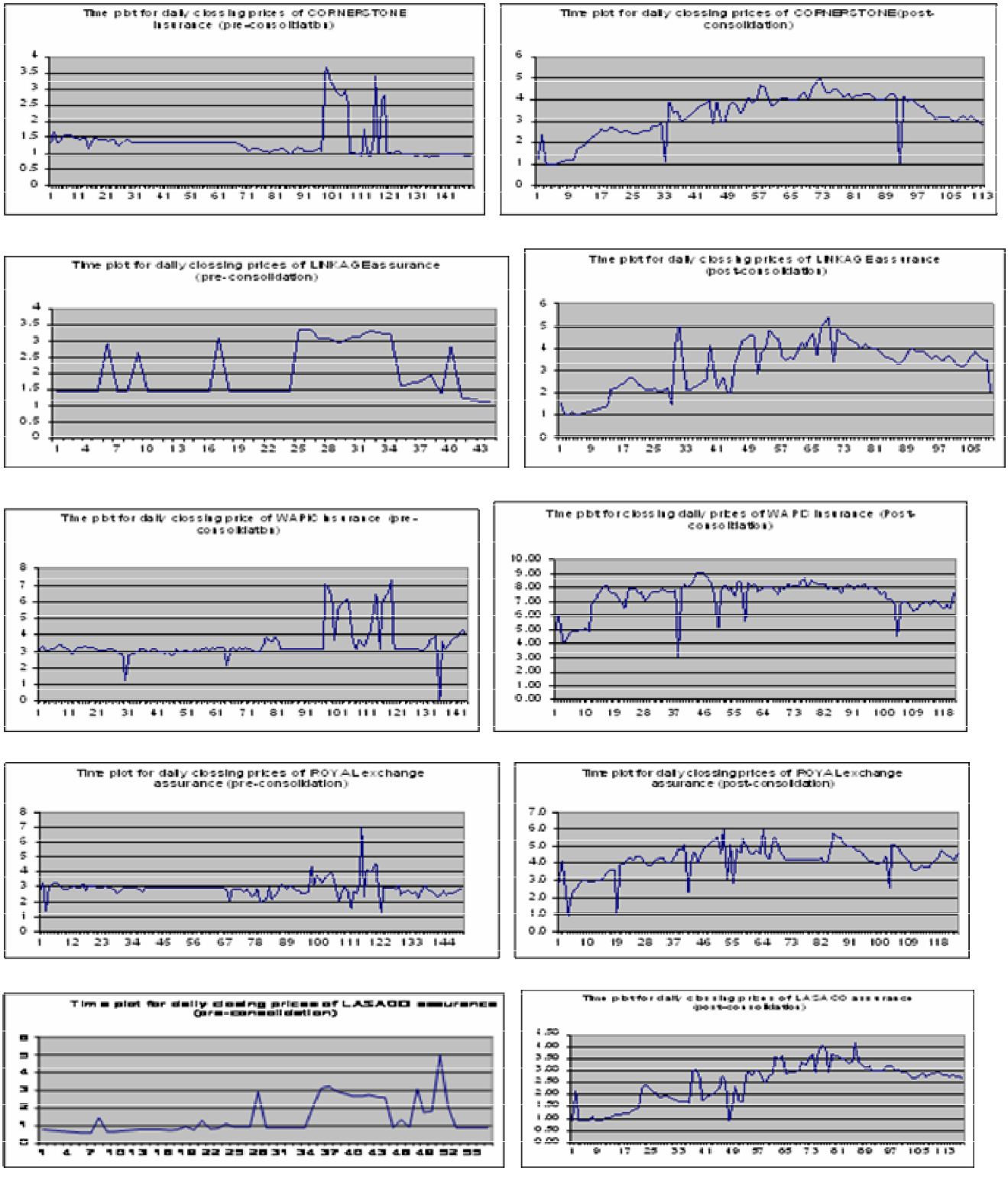

Figure 1. Graphs showing the trend of stock prices for various insurance companies during pre-consolidation and post-consolidation period.

clearly show increased activity with a steady increase in price. For many of the stocks the post consolidation figures in Table 2 dominate those of the figures in Table 1. This is an indication that the average daily stock prices

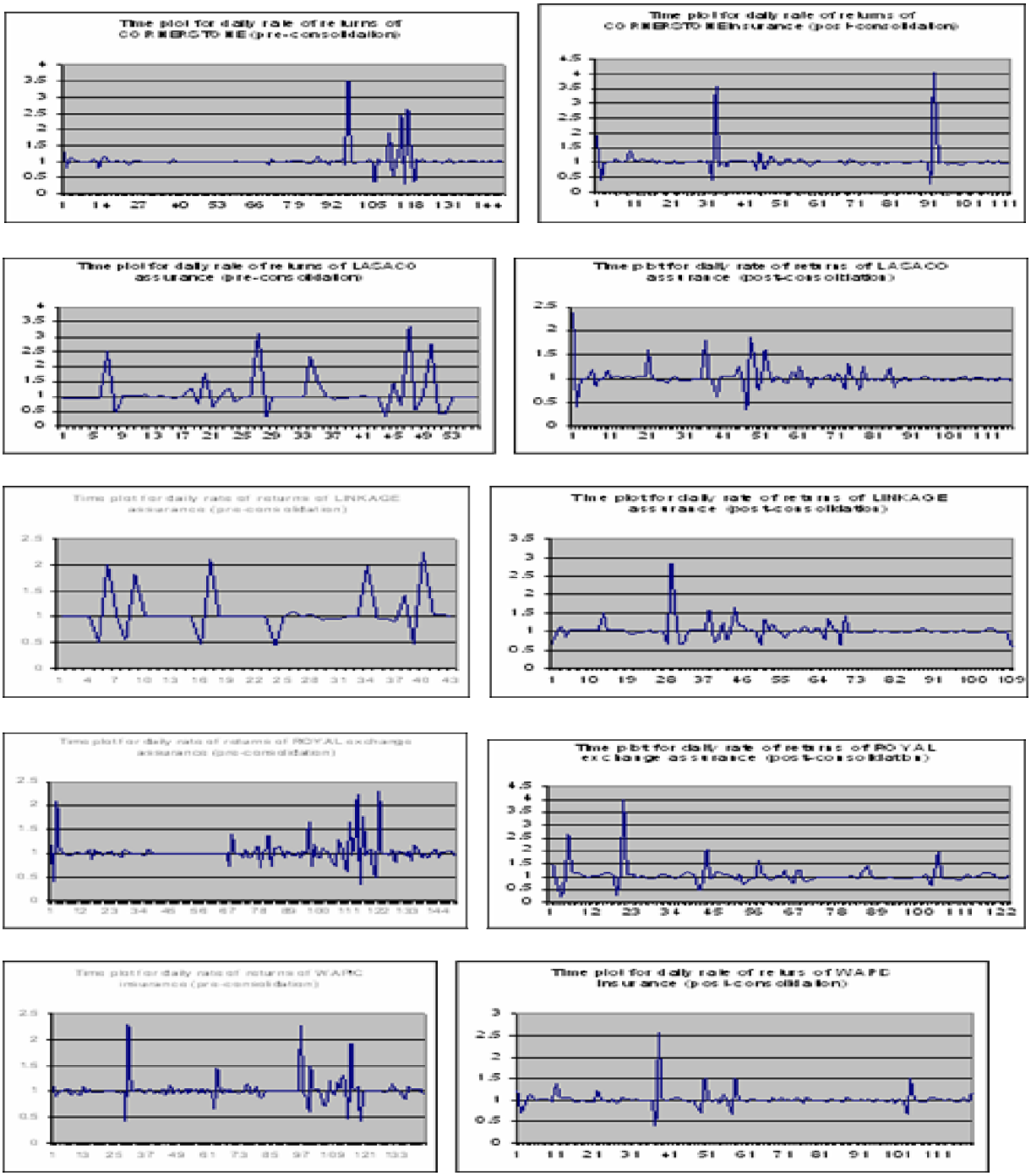

Figure 2. Graphs showing the trend of rate of returns for various insurance companies during pre-consolidation and post-consolidation period.

of the selected insurance companies have moved up following the post-consolidation exercise.

Conclusion

Our study compared daily data just before the capitalization with the daily data released shortly after consolidation. The results using descriptive statistical methods shows that with capitalization in the insurance industry completed, investors have realized the value of insurance. They now see insurance as an emerging market. The implication of this outcome is that investors had faith in the last recapitalization exercise unlike the previous consolidations. This tends to support the widely held view

that previous exercises were mere consolidations on paper as not much fresh funds were injected into the firms (Obaremi, 2008). An immediate lesson for regulatory bodies is to enforce the spirit and letters of the various legislations guiding the operation of financial institutions. If that is done, investors' interest is likely to be sustained.

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