

Impact Of NSE Premium Index On The All Share Index Of The Nigerian Stock Exchange (NSE), January 31 – December 31, 2017

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Abstract: The study aims to conclusively establish the veracity or otherwise of the widely held notion amongst Capital Market Operators/Analysts in Nigeria that one index – The Premium Index (NSE PREMIUM) – of The Nigerian Stock Exchange (NSE), out of a total of twelve Sectoral Indices currently on the NSE Board is actually the barometer that determines the direction of the All Share Index (ASI) at any particular trading day. The study covers the period from January 31– December 31, 2017. Data for the twelve month period were secondary in nature and were sourced from the Nigerian Stock Exchange. Analysis using the appropriate statistical tool; the coefficient of correlation \otimes was carried out. From the study, it was clearly established that a strong correlation actually exists between NSE PREMIUM and ASI which can be interpreted to mean that increased NSE PREMIUM is highly associated with increased ASI. Having established this strong correlation, the study concludes that it is high time, products designed to track this index were rolled out by operators in the Market.

Keywords: Nigerian Stock Exchange, NSE PREMIUM INDEX, All Share Index, Coefficient of Correlation, Tracking.

I. INTRODUCTION

By its very nature, an index is key and very useful in expressing items in percentages. When these percentages can be related to some base year, it takes the form of index analysis (Van Horne, 1980).

Relating it to the Capital Market globally, Capital Markets Index can be regarded as an investment tool that tracks the value of traditional investment grade capital market securities. In the Nigerian context, the All Share Index (ASI) of the Nigerian Stock Exchange (NSE) tracks the general market movement of all listed equities on the Exchange including those listed on the Alternative Securities Market (ASeM), regardless of capitalization. As its name depicts, the ASI is the composite index, comprising of many indices (called sectoral indices) that track different segments of the

Market. As at the time of this study, a total of twelve such indices exist in the Market. Some of them include:

- ✓ NSE PREMIUM INDEX – tracks Board companies in terms of market capitalization and liquidity. It is a price index and is weighted by adjusted market capitalization – the number of a company's listed shares, multiplied by the closing price of that company, multiplied by a capping factor. Only fully paid-up common shares are included in the Index
- ✓ NSE PENSION INDEX – tracks the top 40 companies in terms of market capitalization and liquidity. It is a total return index and is weighted by adjusted market capitalization, which has been explained above. Index is also adjusted for a free float factor.
- ✓ NSE BANKING INDEX – designed to provide an investable benchmark to capture the performance of the banking sector. This index comprises the most capitalized

and liquid companies in banking. The index is based on the market capitalization methodology.

- ✓ NSE 30 INDEX – this tracks the top 30 companies in terms of market capitalization and liquidity. Its computation follows the same capitalization methodology.
- ✓ NSE ASeM Index – it tracks price movement of all equities listed on the Alternative Securities Market. It is a value based index.
- ✓ NSE INDUSTRIAL INDEX – it is designed to provide an investable benchmark to capture the performance of the industrial sector. It comprises the most capitalized and liquid companies in the industrial sector and is based on the market capitalization methodology already identified.
- ✓ NSE CONSUMER GOODS INDEX – also designed to provide an investable benchmark but this time to capture the performance of the consumer goods sectors. The index comprises the most capitalized and liquid companies in food, beverage and tobacco. This index is also based on the market capitalization methodology.
- ✓ NSE OIL/GAS INDEX – it is designed to provide an investable benchmark to capture the performance of the Oil and Gas sector. The index comprises the most capitalized and liquid companies in Oil and Gas marketing. It is also based on the market capitalization methodology.
- ✓ NSE LOTUS ISLAMIC INDEX – tracks the performance of 15 Shari’ah Compliant equities which have met the eligibility requirements of a renowned Shari’ah Advisory Board. The component stocks are rigorously screened and reviewed bi-annually to ensure their continuous compliance for inclusion. The index is also based on the market capitalization methodology.
- ✓ NSE INSURANCE INDEX – designed to provide an investable benchmark to capture the performance of the insurance sector. This index comprises the most capitalized and liquid companies in insurance sector. The index is also based not outside of the market capitalization methodology.

Only NSE 50 and NSE MAINBOARD are not explicitly captured here.

II. NSE PREMIUM AS AN INDEX OF NSE

The Premium Board of the Nigerian Stock Exchange – the precursor of the NSE Premium Index – was launched on Tuesday, the 25th day of August, 2015. As articulated by the NSE officials, it was aimed at promoting Africa’s biggest companies, as well as influencing the economic growth and development of Nigeria (NSE website). The Board was designed to feature companies that meet the Exchange’s most stringent listing criteria of capitalization, governance and liquidity. If qualified to be listed on the platform, it would provide for the eligible African corporates greater global visibility, thus making it easier for them to attract global capital flows and reduce the cost of funding.

The Premium Board Index on the other hand, is an equity index designed to provide a benchmark to capture the performance of companies listed on the Premium Board. The index was also designed to provide a basis for developing products (such as ETFs and equity index derivatives) that are tradable on the bourse.

The Premium Board Index was designed to serve as a benchmark for investors looking to track the performance of large firms with excellent corporate governance and sustainable business models. Typically, similar indices outperform their market wide index by double digits.

In Nigeria, its Premium Board is for issuers with minimum market capitalization of N200 billion and highest corporate governance standards. Companies aspiring to be listed on the Board must achieve a minimum score of 70% on the stringent Corporate Governance Rating System (CGRS) as designed by the NSE. In addition, the companies are required to maintain a minimum free float of 20% of their issued share capital or a free float value equal to or above N40 billion.

Officially, the NSE PREMIUM INDEX took off on 1st September, 2015 with three companies, namely DANGOTE CEMENT PLC, FBN HOLDINGS PLC, and ZENITH INTERNATIONAL BANK PLC on the Board with market capitalization of about N2.87 trillion, N277.70 billion, and N587.43 billion respectively. Just very recently (April 16, 2018) four additional companies migrated to this Board, though they reckon in this study.

III. PURPOSE OF THE STUDY

There is a widely held notion amongst capital market operators and analysts in Nigeria that the NSE Premium Index has overwhelming influence on the overall All Share Market Index of the Nigerian Stock Exchange since it came into operation on the 1st day of September, 2015. This feeling has been quite strident among this class that the performance of the index in any particular trading day largely impacts on the performance of the All Share Index (ASI) for that day. That in turn reflects the overall market performance for each month, quarter et cetera.

As exciting as the notion seems, no research has been carried out so far to validate the veracity or otherwise of the speculation. What’s more, despite the high esteem in which the NSE PREMIUM is held, the market is yet to record Exchange traded funds designed to track that Index, whereas less “fancied” ones are enjoying the privilege. The Exchange, for example, has in existence today such exchange traded funds patterned after other indices. Some of these include VG 30 ETF, VET BANK ETF, VET GOODS ETF, VET IND. ETF, and LOTUS LAL 15 ETF, SIAML ETF 40, STANBIC ETF 30; to mention just seven of such.

This study is therefore aimed at conclusively establishing whether any strong correlation exists between the performance of the NSE PREMIUM INDEX and the ALL SHARE INDEX of the Nigerian Stock Exchange against the background of the former having only three equities (within the period under study) in its portfolio (the least among the indices), aside being the last index to be inaugurated on the Exchange.

IV. METHODOLOGY

The study placed great accent on secondary data collection. These were sourced primarily from the Nigerian Stock Exchange. As already indicated, the study is for a period of twelve months; January 31 to December 31, 2017. The data were in respect of NSE PREMIUM INDEX and ASI for the period.

Since the study is striving to establish whether any strong correlation exists between the two identified variables, correlation analysis method is considered appropriate (Berenson, M.L & Levine, D.M. 1979). Accordingly, the sample correlation coefficient *r* would be computed using the following formula:

$$r = \frac{\sum_{i=1}^n X_i Y_i - \frac{(\sum_{i=1}^n X_i)(\sum_{i=1}^n Y_i)}{n}}{\sqrt{\sum_{i=1}^n X_i^2 - \frac{(\sum_{i=1}^n X_i)^2}{n}} \sqrt{\sum_{i=1}^n Y_i^2 - \frac{(\sum_{i=1}^n Y_i)^2}{n}}}$$

V. DATA ANALYSIS AND RESULTS

As already indicated in the foregoing section, data for this study were of secondary in nature and sourced from the Nigerian Stock Exchange.

- ✓ Data Presentation: the following data were collected in respect of the two variables central to this study, namely All Share Index (ASI) and NSE PREMIUM INDEX for the twelve month period under consideration:

MONTH	ASI	NSE PREMIUM
January	26,306.07	1,660.62
February	25,376.93	1,651.25
March	25,297.69	1,597.85
April	25,518.50	1,619.91
May	27,705.98	1,737.19
June	32,951.65	2,214.67
July	33,908.49	2,323.57
August	36,956.04	2,453.34
September	35,372.67	2,286.27
October	36,467.94	2,422.15
November	37,029.32	2,542.61
December	38,430.60	2,636.21

Table 1: Monthly Average Record of ASI and NSE PREMIUM (January 31 – December 31, 2017)

- ✓ Data Analysis & Result: the first step in this direction is to process the raw data presented above into a usable form in line with the selected statistical tool already identified as appropriate for the study as indicated in 4 above. Since the coefficient of correlation (*r*) is to be determined using

the above data, it is apposite to determine the independent (x) and dependent variable (y).

ASI being the variable that is composite of other variables and its outcome at any point in time is dependent on others, is obviously the dependent variable for this study and will be denoted as Y, whilst NSE PREMIUM takes the position of the independent variable and will be denoted as X.

In order to further process the raw data in table 1 above as a prerequisite for determining *r*, the following computations are hereby presented along the assumed parameters:

Month	NSE PREMIUM Average X	ASI Average Y	XY	X ²	Y ²
1	1,660.62	26,306.07	43,684,385.96	2,757,658.78	692,009,318.84
2	1,651.25	25,376.93	41,903,655.66	2,726,626.56	643,988,576.22
3	1,597.85	25,297.69	40,421,913.97	2,553,124.62	639,973,119.34
4	1,619.91	25,518.50	41,337,673.33	2,624,108.41	651,193,842.25
5	1,737.19	27,705.98	48,130,551.40	3,017,829.10	767,621,327.76
6	2,214.67	32,951.65	72,977,030.70	4,904,763.21	1,085,811,237.72
7	2,323.57	33,908.49	78,788,750.11	5,398,977.54	1,149,785,694.08
8	2,453.34	36,956.04	90,665,731.17	6,018,877.16	1,365,748,892.48
9	2,286.27	35,372.67	80,871,474.24	5,227,030.51	1,251,225,782.93
10.	2,422.15	36,467.94	83,330,820.87	5,866,810.62	1,329,910,647.84
11.	2,542.61	37,029.32	94,151,119.32	6,464,865.61	1,371,170,539.66
12.	2,636.21	38,430.60	101,311,132.03	6,949,603.16	1,476,911,016.36
	25,145.64	381,321.88	817,574,238.76	54,510,275.28	12,425,349,995.50

Table 2: Computations involving the key variables for determining *r*

In computing for *r* as given by the formula under methodology in 4 above, we restate the figures as derived in table 2 above:

$X_i = 25,145.64$ $Y_i = 381,321.88$ $XY = 817,574,238.76$
 $X^2 = 54,510,275.28$ $Y^2 = 12,425,349,995.50$ $n = 12$

Having established the parameters, the figures can now be inserted in the *r* equation as already given, thus *r* can be computed as follows:

From the result, the coefficient of correlation between NSE PREMIUM and ASI indicates a high positive correlation, implying that the impact of NSE PREMIUM on the ASI is actually high. This can also be interpreted to mean that increased NSE PREMIUM is highly associated with increased ASI.

VI. CONCLUSION

It is now not a matter of speculation but conclusively evident that NSE PREMIUM INDEX has overwhelming influence on the outcome of All Share Index of the Nigerian Stock Exchange at any trading day. It is however, intriguing that the least index in terms of portfolio (just three stocks in the index within the period under study) could exert such an influence. This phenomenon cannot be divorced entirely from the fact that one of the stocks in that portfolio – Dangote Cement Plc – has almost one-quarter of the current Market Capitalization of the Exchange. Equally curious is the fact that so far no product currently in the market has been designed to track this index. Thinking in that direction by Capital Market Operators may be a good step after all, as it may reveal more interesting scenarios, aside deepening the market.

$$\begin{aligned}
 & (25,145.64) (381,321.88) \\
 & (25,145.64) (381,321.88) \\
 817,574,238.76 & - \frac{(25,145.64)^2}{12} - \frac{(381,321.88)^2}{12} \\
 r = & \frac{(25,145.64)^2}{12} - \frac{(381,321.88)^2}{12} \\
 \sqrt{54,510,275.28} & - \frac{(25,145.64)^2}{12} - \sqrt{12,425,349,995.50} - \frac{(381,321.88)^2}{12} \\
 = & 817,574,238.76 - 799,048,559.88 \\
 \sqrt{54,510,275.28} & - 52,691,934.25 \quad \sqrt{12,425,349,995.50} - 12,117,198,013.90 \\
 = +18,525,678.88 & \quad = +18,525,678.88 \\
 \frac{(1,348.46) (17,554.26)}{23,671,217.44} & = +.7826
 \end{aligned}$$

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