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Apprasal of Investment Volume and Per Capita in Nigeria during Financial Reforms

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Abstract: *This study was carried out to evaluate the Impact of financial reforms on investment and per capita income in Nigeria. Specifically, the study sought to assess the performance of Nigerian Banks as influenced by changes in the economy as well as changes in other sectors of the financial system. In carrying out this research, secondary data were used while ex-post facto research design was employed. Following a forty year review of the performance of Nigeria's economy in tandem with the performance of Banks in the face of the ebbs and flows of the identified parameters. the study notes two eras of pre-reform (1970-1985) and the reformed (1995-2010) financial eras. Using both descriptive statistics and analytical methods, regression analyses were conducted and based on the results, it was discovered among other things that there was no significant difference in the growth and development of the economy vis-a-vis bank performance during the pre-reformed compared to the reformed financial era in Nigeria. To this end it was concluded that reforms so far implemented have not significantly move the economy foreword and consequently banks have not also performed as had been expected but rather the reforms have created avenues for executive fiat, corruption and embezzlement of public funds.*

I. Introduction

The world over, many economies have undergone various types of reforms. This is to enable them cope with changing economic cycles, developments and challenges. Nigeria is no exception. Different sectors of the economy have also undergone several types of reforms. Reforms here mean to improve a system, an organisation, a law, etc by making changes to it, (Hornby, 2001). The point is that reforms are gradual, continuous and of varieties. For instance, there are economic, political, social, and/or financial reforms, to mention but a few.

Economic reforms are the pursuits of fiscal reforms and market liberalization, which focus on extensive privatization of state owned enterprises as well as liberalization of financial and foreign exchange markets, with government limited to provision of the right enabling environment for a private sector led growth and development (World bank, 1986). Theodore (2007) opined that social reform means any attempt to alter or effect change in the society, even if it means making some radical exploit to alleviate human sufferings and deprivations of all ramifications without losing sight of the ultimate desirable democratic order. Such change could be in the form of social groups, structures and types of associations/interactions among member of the society, while according to Dele (2007) financial reforms focus mainly on restructuring financial sector institutions (regulators and operators) through institutional and policy reforms. They are always targeted toward market liberalization for the promotion of a more efficient resource allocation, expansion of savings mobilization base, promotion of investment and growth through market-based interest rates and above all, laying the basis for inflation control and economic growth and development.

The concern of this article is on Investment volume and per-capita income. This study therefore examines the impact of financial reforms on investment volume and per-capita income and Economic growth and development in the economy. Economic growth means an increase in output per unit of input, while economic development means more outputs plus changes in the technical and institutional arrangement by which the outputs are produced (Udu and Agu, 1989). while economic growth and development are measured through the use of major economic indicators such as growth rate of gross domestic product (GDP_r), volume of investment in the economy and human development index and consumer price index rate respectively.

1.1 Objectives of the Study

The study sought to establish the relationship existing between economic growth and development and financial reforms in Nigeria. To

(i) Ascertain the relationship that exists between the aggregate public investment and bank asset base (BAB), insurance asset base, stock market capitalisation rate and foreign exchange reserves in Nigeria.
(ii) Establish whether any significant relationship exists between the per capita income and bank asset base (BAB), insurance asset base, stock market capitalisation rate and foreign exchange reserves in Nigeria.

1.2 Research Questions

i. Is there any significant relationship existing between the aggregate public volume of investment and bank asset base, insurance asset base, stock market capitalisation and foreign exchange reserves in Nigeria?

ii. Has per capita income any relationship with bank asset base, insurance asset base, stock market capitalisation and foreign exchange reserves in Nigeria?

1.3 Research Hypotheses

These hypotheses are stated in their null forms below:

i. Ho: Aggregate public investment has no significant relationship with bank asset base, insurance asset base, stock market capitalisation and foreign exchange reserves in Nigeria?

ii. Ho: Per capita income has no significant relationship with bank asset base, insurance asset base, stock market capitalisation and foreign exchange reserves in Nigeria?

II. Literature Review

2.1.0 Theoretical Review

Judging from the pedigrees of supporting theories, discussion on financial reforms and economic growth and development is not new. Financial reform has long been recognised to play an important role in the economic growth and development of a nation. This recognition dates back to Goldsmith (1955), Cameron (1967), McKinnon (1973), and Shaw (1973). They demonstrated that financial sector could be a catalyst of economic growth and development if it is developed and healthy. Since then efforts have been made in quite a number of literatures to fathom out the ties between these phenomena.

This study therefore, pitches its tent on the framework of theoretical reasoning and evidences that suggest a positive, first-order relationship between financial reform and economic growth and development. A growing body of work that are conducted on this theory have pushed even most sceptics toward the belief that the reform of the financial sector (market and institutions) is a critical and inextricable part of the growth and development process, and away from the view that the financial system is an inconsequential side show, responding passively to economic growth and development

III. Research Methodology

3.1 Research Design

This specifically x–rays the designs, procedures, and techniques that clearly show or tell us how this study is conducted. Items here include: the research design, research area, source and types of data, methods of data collection, and problems of data collection, model specification, and techniques of data treatment.

In this study, the *ex post facto* research design was employed. Ex post factor (i.e. after the fact) research is a research that is undertaken after the event has taken place and the data are already in existence (Ndiyo, 2005). The choice of this design is informed by the hybrid nature of this research. It is hybrid in the sense that it has some descriptive and experimental features, and the ex post factor design is midway between descriptive and experimental research. It is descriptive in that the researcher has no direct control over experimental conditions, while it is experimental because an attempt is made to infer causal relationships between groups, which differ in important ways. It is to explore the causal relationship existing between two or more variables as is the case in this study.

3.2 Research Area

This study is conducted in the area of financial reform and economic growth and development. Its thrust is specifically on examining the impact that financial reforms could mete out on economic growth and development of a nation. In this study, I use Nigeria as a case. Thus, this research is carried out in Nigeria to examine the impact of financial reforms on the growth and development of her economy.

3.3 Sources of Data

The data used were secondary data. Secondary data refers to those pieces of information, facts, figures, and detailed opinions generated and documented by other people to satisfy entirely different research works but were found to be relevant to this study. Specific types of data required are as listed under their category below:

1. ***Measures of Financial Reforms:***

(i) Bank asset base (BAB) from the banking sector,

(ii) Aggregate insurance asset base (IAB),
(iii) Stock market capitalization rate (SMCR), and
(iv) Foreign exchange reserves (FER).

2. ***Economic Growth (EG) Indicators:***
(i) Growth rate of gross domestic product (GDP_r), and
(iii) Aggregate public investment designated as volume of investment (VI).

3. ***Economic Development (ED) Indicators:***
(i) Per capita income (PCI), and
(iii) Consumer price index (CPI).

However, these data were drawn from the following sources: The Central Bank of Nigeria (CBN) and International Monetary Fund (IMF) statistical Bulletin, economic reviews, monetary survey data, Annual Reports and Statement of Accounts; Annual Abstract of Statistics from the National Bureau of statistics (NBL), Bureau of Labour Statistics (BLS), annual reports and statements of account; Accounts of institutions and information from Federal Ministry of Finance and Economic Development; Textbooks and other publications; Website and Internet-based sources.

3.4 Model Development/Specification

Economic "growth" and "development" are often used synonymously in economic discussion, but they can be distinguished from each other. Economic growth means more output, which implies more input and more efficiency – that is an increase in output per unit of input (Udu and Agu, 1989:232). It is the rate at which the economy grows per annum and is measured in this study by the growth rate of gross domestic product (GDP_r), and volume of investment (VI) etc. In this study, it is postulated that economic growth, proxy by GDPr and VI is influence by financial reforms proxy by bank asset base (BAB) Insurance Asset Base (IAB), stock market capitalization rate (MCR) and foreign exchange reserves (FER) . Our first set of models and their implicit regression equations are therefore given thus:

(1) $EG = f(BAB, IAB, MCR, FER)$:

(i) $GDP_r = f(BAB, IAB, MCR, FER)$

$$GDP_r = a_o + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

$$GDP_r = a_o + b_1 BAB + b_2 IAB + b_3MCR + b_4FER + e \quad \text{...Eqtn 1}$$

(ii) $VI = f(BAB, IAB, MAR, FER)$:

$$VI = a_o + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

$$VI = a_o + b_1 BAB + b_2 IAB + b_3MCR + b_4FER + e \quad \text{.....Eqtn 2}$$

where EG = Economic growth measured by GDP_r and VI, each being a function of (f) X_1= BAB, X_2= IAB, X_3=MCR, X_4=FER as defined above, and e*=error term, a_o=estimate of the true intercept of the dependent variables or regression constant; $b_{1..n}$ = estimate of the true parameters of the independents variables or regression coefficients*

Economic development (ED) on the other hand, implies that there are both more output and changes in the technical and institutional arrangement by which the output is produced. It implies changes in the structure of outputs and in allocation of inputs by production sector. Udu and Agu (1989:232) defined economic development as the process whereby the level of national production (i.e., national income) or per capita income, increase over a period of time and is measured in this study by per capita income (PCI) and Consumer Price Index (CPI). In the same vein, ED proxy by PCI and CPI is influence by financial reforms as express in our second set of models below:

(2) $ED = f(BAB, IAB, MCR, FER)$:

(i) $PCI = f(BAB, IAB, MCR, FER)$

$$PCI = a_o + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

$$PCI = a_o + b_1 BAB + b_2IAB + b_3MCR + b_4FER + e \quad \text{.....Eqtn 3}$$

(ii) $CPI = f(BAB, IAB, MCR, FER)$

$$CPI = a_o + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

$$CPI = a_o + b_1 BAB + b_2IAB + b_3MCR + b_4FER + e \quad \text{.....Eqtn 4}$$

All variables are as defined earlier on in the preceding sections.

Generally, while measures of financial reforms constitute the independent variables, measures of economic growth and development constitute the dependents variables of the study. Thus ***eqtns 1 – 4*** would be estimated through a simultaneous regression estimation procedure. This estimation procedure is often adjudged to yield better result and more efficient estimate of the parameters and coefficient of the regression than the single equation model especially where two or more independent variables are involved. In its implicit form the multiple regression models would be rendered as:

$$Y = a + b_1 BAB + b_2 IAB + b_3MCR + b_4FER + e \quad \text{..... eqtn 5}$$

GAUSS MARKOV MODEL: Linearity in Parameters

where: Y = the estimate value of the dependent variable, given specific value of independent variables;

a_o = *estimate of the true Y intercept or regression constant;*

$b_{1..n}$ = *estimate of the true parameter of the independent variables or regression coefficient; BAB, IAB, MCR, FER, are as defined earlier.*

3.5 Method of Data Analysis

In this study, the multiple regression method will be employed to analyze data. The model for this statistics is given as:

$$Y = a + b_1 BAB + b_2 IAB + b_3 MCR + b_4 FER + e \text{..... eqtn 5.}$$

The use of regression in the analysis is to assist in identifying the independent variable that best explains and significantly impacts on the dependent variable of the research. For purpose of testing the hypotheses, three tests:- the t-test, the F-test statistics and ANOVA was employed. While the t-test was used to measure the statistical significant of the regression coefficients and to determine the flow or direction of the relationship existing between the two variables, the F-test was employed to measure the adequacy or appropriateness of the model and to arrive at a conclusion on the statistical significance of the coefficient of determination (r^2). All the hypotheses will be tested at 95% level of significance. The result generated base on the application of Mat lab, a computer based software programme will be compared with the tabulated t and f statistics respectively at P = 0.05. Consequently, the decision rule for accepting or rejecting the hypotheses is based on:

(i) $\boldsymbol{Accept\ H_o\ and\ reject\ H_i\ if\ f_{t\ 0.05} > f_C}$

(ii) $\boldsymbol{Reject\ H_o\ and\ accept\ H_i\ if\ f_{t\ 0.05} < f_C}$

That is, we accept the null hypotheses (H_o) and reject the alternative hypotheses (H_i) where the tabulated or critical F value is greater than our computer generated F value at 5% level of significance and vice versa. Similarly the significance and relevance of the parameter estimate of our test is considered at where: $\boldsymbol{t_{C\ 0.05} > t_t}$ and insignificance and non-relevance at where $\boldsymbol{t_{C\ 0.05} < t_t}$.

The use of F- statistic in determining whether or not to reject the hypotheses is simply because of its prime or superior position to the t-test as noted by McCullough (1974) thus: "if f-test result is true, then t-test must be true and not vice-versa". Finally, an ANOVA used to compare and analyse any observed differences in economic growth and development in periods of financial repression as well as in the periods of financial reform.

IV. Data Presentation Analysis And Interpretation

4.1 Data Presentation

This present, analyze and interprets the data collected for the study. Data used in this study were collected based on the variables identified in the research objectives, research questions and hypotheses. Thus the data were presented to reflect the research objectives and the problems identified.

4.2 Data Analysis

The data in Appendix A underpins the analytical framework for this study. It is pivotal to and a springboard from which subsequent data and Appendices are extracted and analyzed specifically for each index of economic growth and development against those of financial reforms. The data presented in Appendix A covers the period of forty-one (41) years, (1970-2010). In it, it is shown that financial reforms are examined in terms of bank asset base (BAB), insurance asset base (IAB), foreign exchange research (FER) and stock market capitalization (SMC). Economic growth is examined in terms of growth rate of gross domestic product (GDPr) and aggregate public investment, i.e. investment volume (IV), while economic development is examined in terms of per capita income (PCI) and consumer price index (CPI).

APPENDIX A

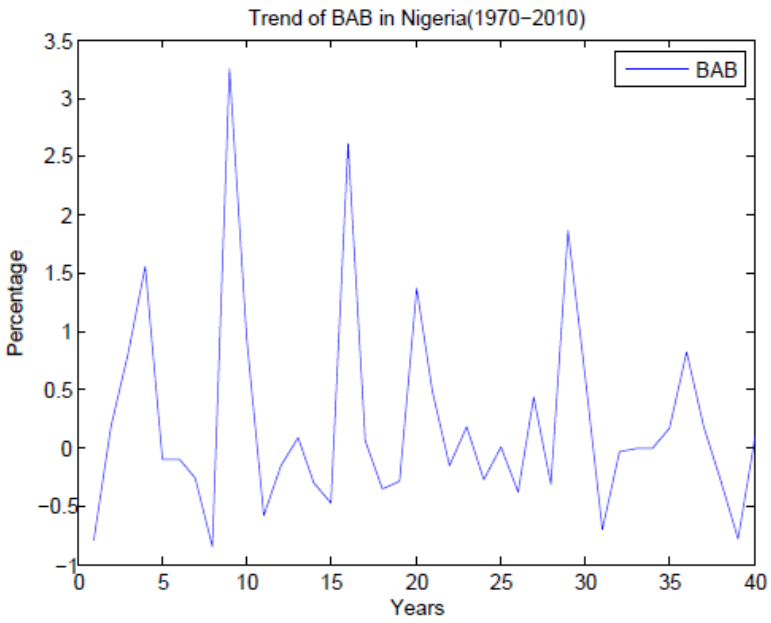
The Relationship between Growth Rates of Gross Domestic Product (GDPr), Investment Volume (IV), Growth Rate of Per Capita Income (PCIr), Consumer Price Index (CPI), Bank Asset Base (BAB), Insurance Asset Base (IAB), Foreign Exchange Reserves (FER), and Stock Market Capitalization (SMC),(1970 – 2010)

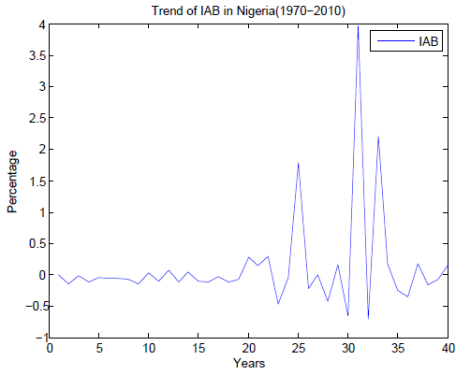
Years	GDPr (%)	IV (%)	PCIr (%)	CPI (%)	BAB (%)	IAB (%)	FER (%)	SMC (%)
1970	46.80	18.80	21.98	0.23	51.19	64.40	8.10	1.20
1971	26.33	16.60	11.47	0.23	10.80	64.20	8.10	11.80
1972	8.45	24.50	0.85	0.24	12.70	54.60	9.20	-24.86
1973	59.09	31.50	2.77	0.28	23.03	53.60	24.80	23.97

1974	60.00	42.30	8.28	0.31	58.84	47.40	25.10	-45.12
1975	17.09	43.40	-7.81	0.45	53.24	45.70	24.80	25.64
1976	24.66	40.60	5.91	0.50	47.88	43.30	24.70	75.66
1977	17.41	42.90	2.86	0.66	35.47	40.90	31.00	60.85
1978	7.32	46.50	-8.61	0.70	5.51	37.90	30.95	5.38
1979	19.03	48.40	3.58	0.75	23.40	32.30	21.97	34.10
1980	18.62	52.40	1.21	0.88	45.39	33.50	25.78	52.79
1981	40.29	52.60	-15.52	1.03	19.19	30.00	33.14	-21.58
1982	2.36	51.10	-2.90	1.10	16.34	32.30	53.00	-29.46
1983	9.99	50.90	-7.79	1.53	17.82	28.50	43.00	85.06
1984	11.32	51.70	-7.35	1.87	12.60	29.70	63.00	-35.53
1985	13.76	53.70	6.72	1.89	6.64	26.50	0.50	23.43
1986	0.97	54.00	-0.35	2.15	24.00	23.30	0.50	57.26
1987	49.03	53.00	-3.52	2.36	25.57	22.80	0.60	-23.19
1988	33.39	51.40	6.67	3.80	16.45	20.20	0.50	12.23
1989	54.78	53.20	4.14	5.50	11.79	18.90	0.50	-28.22
1990	15.94	53.10	5.14	5.70	27.87	24.20	0.70	-63.06
1991	24.31	59.00	1.83	7.00	41.65	27.60	0.80	7.40
1992	69.69	58.60	0.07	10.42	35.46	35.90	1.70	10.39
1993	26.79	40.50	-0.58	16.80	42.07	19.10	2.10	63.59
1994	31.25	45.40	-2.58	29.70	30.45	18.30	2.20	22.56
1995	11.16	62.00	-0.18	45.03	30.54	50.90	2.20	86.50
1996	42.79	69.80	1.63	51.47	19.11	40.10	2.20	27.97
1997	4.09	69.40	0.13	56.73	27.37	40.1	2.00	48.00
1998	-3.48	69.50	-0.61	63.49	18.86	22.88	2.10	31.36
1999	2.80	69.60	-1,32	63.63	54.04	26.72	2.10	3.69
2000	3.80	69.60	2.93	72.87	87.00	9.22	9.80	10.06
2001	4.60	69.50	0.74	84.90	26.00	45.76	20.00	10.48
2002	3.50	69.50	-0.73	95.20	25.00	13.64	23.00	2.96
2003	10.20	69.50	8.25	11.79	25.00	43.83	23.00	10.26
2004	7.10	69.50	3.70	12.97	25.00	51.41	23.00	87.55
2005	6.20	68.90	4.65	14.47	29.36	39.00	22.60	16.43
2006	6.90	68.90	6.73	15.71	53.50	25.41	26.00	78.84
2007	5.30	12.86	7.09	16.74	62.98	30.00	22.60	12.88
2008	6.40	91.31	5.35	19.26	44.96	25.41	22.60	56.05
2009	2.05	81.19	0.07	10.67	10.07	23.53	20.03	26.48
2010	17.79	23.29	8.70	13.83	11.09	27.34	23.70	41.07

Sources: CBN statistical Bulletin (Various yrs), CBN Annual Report and Statement of Accounts (Various yrs) Nigerian Quarterly Economic Review.

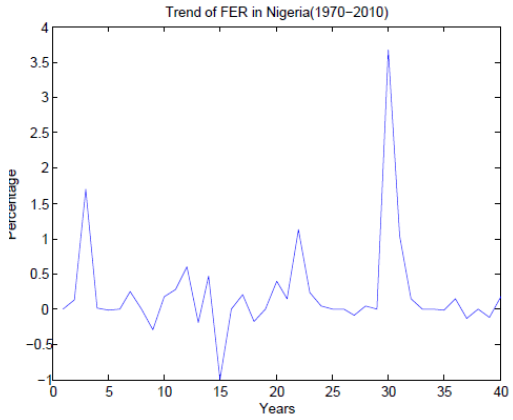
From the data above in Appendix A, between 1970 and 1990, Nigeria's bank asset base maintained high volatility rate as it rose and fell frequently throughout the years. From 1991-2008 not much volatility. But decline significantly between 2008(34.89%) and 2010 (1.02%) . This trend is best described in the Fig. below.



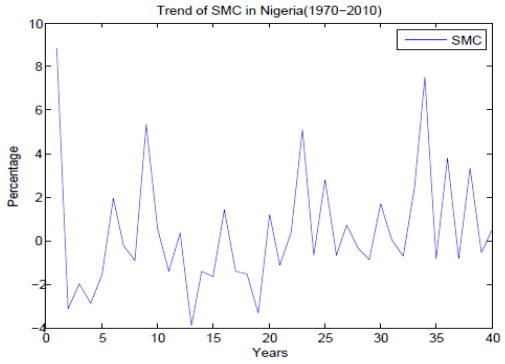


The data for insurance asset base were logged to give the picture of the trend of IAB in Nigeria as presented in Fig. above.

Insurance asset base during the period decline on average by 3.12% consistently. In 1982, IAB rose by a 2.30%, declined in 1983 by 3.8% and increased again by 1.2% in 1984. From 1985 to 1989, an average of 2.16% decline was recorded, while an average of 5.66% increase was recorded between 1990 and 1992. In 1993 and 1994, 16.8% and 0.8% decrease were recorded respectively 1995 had an increase of 32.6%. Between 1996 and 2007 there was stability following a 10.8% decrease in 1996. From 2008 a declined of (4.59%) ,2009 (1.88%) and an increased of (1.88%) for 2010.



The trend of foreign exchange reserve is above. Foreign exchange reserve rose from 0.01% in 1972 -00.15% in 1973 and rose again by 0.06 % in 1977 to about 2.78% in 1978 and by 0.53% from 1980 to 1981. From 1985, a large decline of about (62.5%) was recorded counting from 1991. Between 1988 and 1990, there was relative stability with an average of about 0.13% volatility rate in the positive direction. It rose by 10.2% in 2000 and by 3% in 2001 and remain stable through 2004 when it declined by only 0.40% in 2005. In 2006, FER increased by 3.4% and to 0.40% decrease in 2007 and stabilized through to 2008 to 2010.
The picture of the trend of Nigeria's SMCr under review is presented below.



Stock market capitalization maintained, on average, a 0.07% increase between 1970 and 1975 when it rose by 0.48% in 1976 and maintained an average of 0.65% increase from 1976 - 1980. In 1981 and 1982 SMCr declined by 31.21% and 7.88% respectively. It rose by 55.6% in 1983 and declined again by 49.53% in 1984. Other years that SMC grow and their percentages are: 1985(12.1%), 1986 (33.83%), 1988 (10.96%), 1992 – 1994 (2.47% on average), 1995(63.94%), 1996 declined of (58.53%), 1997 rose by (20.03%), declined of (7.52%) 2002 , 2003 rose by (7.3%), rose by (77.29%) in 2004. Declined by (71.12%) in 2005. and a significant positive volatility between 2007 - 2010.

4.3 Test of Research Hypotheses

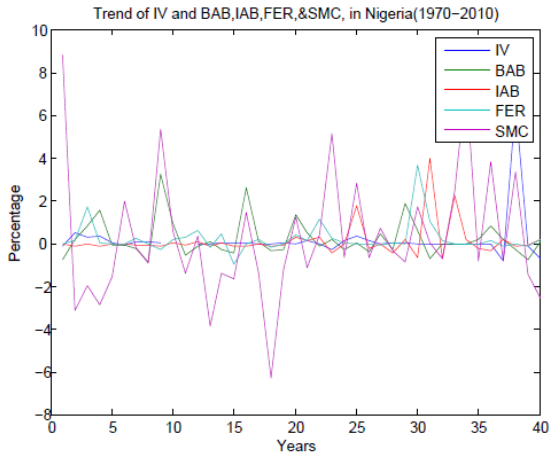
As stated earlier, financial reforms are measured in this study by bank capital base (BAB), insurance asset base (IAB), foreign exchange reserves (FER) and stock market capitalization (SMC). Economic growth is measured by growth rate of gross domestic product (GDPr) and investment volume (IV), while economic development is measured by per capita income (PCI) and consumer price index (CPI).

4.3.2 Hypothesis Two

The second hypothesis addressed the second objective of this study which was to find out the relationship between volume of investment and bank asset base, insurance asset base, foreign exchange reserves and stock market capitalization. Based on this, our second hypothesis was then made thus:

Volume of investment has no significant relationship with bank asset base, insurance asset base, stock market capitalization and foreign exchange reserves in Nigeria?

Data relating to the variables in hypothesis two above were plotted and the interactive graph explaining the relationship at a glance plotted and presented below.



The log values of the parameters is given as:

$VI = a_o + b_1CBAB + b_2 IAB + b_3MCR + b_4FER + e$.....Eqtn 2

The regression result of the above equation as extracted from Table 4.2 is presented below:

IV = **70.7628** – **0.0215**$_{BAB}$ **-0.5321** $_{IAB}$ **-0.0118** $_{FER}$ + **0.0474** $_{SMC}$ +e

t-$_{stat}$ = (4.256) (–0.147) (-2.702) (-0.068) (0.746)

R^2 = 11.69%, F (4, 36) = 1.8271

Table 4.2: Regression result of the relationship between Investment volume (IV), bank asset base (BAB), insurance asset base (IAB), foreign exchange reserve (FER) and stock market capitalization rate (SMCr)				
DEPENDENT VARIABLE:	**: Investment volume (IV)**			
Independent variables	**Coefficient**	**t- stat**	**R square**	**F**
constant	**70.7628**	**4.256**	**1.1687**	**1.8271**
BAB	**-0.0215**	**-0.147**		
IAB	**-0.5321**	**-2.702**		
FER	**-0.0118**	**-0.068**		
SMC	**0.0474**	**0.746**		
Source: Authors computation as extracted from the regression of Appendix C				

(a) Predictors: (Constant), BAB, IAB, FER, and SMC.

(b) Dependent Variable: IV

R^2 = 11.69%, F (4, 36) = 1.8271,

Level of Significant = 95% level

As shown in the regression result above, average investment volume was **70.7628** during the period reviewed. With regards to the explanatory variables, a one naira increase in BAB reduced investment volume by – **₦ 0.0215** while insurance asset base reduced investment volume by – **₦0.5321** and stock market capitalization increase investment volume by **₦0.0474** . Also, foreign exchange reserves reduced investment volume by - **₦0.0118**.All other things being equal.

The significance of the variations in the dependent variables as explained by the independent variable was determined by comparing our calculated f (f_C) value of **1.8271**, at 95% level of significance and thirty nine degrees of freedom with the critical value of f (f_t) of 2.65. With f_C value less than f_t value, the null hypothesis which states that Volume of investment has no significant relationship with bank asset base, insurance asset base, stock market capitalization and foreign exchange reserves in Nigeria was accepted. In other words, BAB, IAB, FER, SMCr had no significant impact on average investment volume.

The statistical significance of the individual independent variables in the model was established by comparing their respective calculated t (t_C) values which were **-0.147** for bank asset base (BAB); **-2.702** for insurance asset base (IAB), **-0.068** for foreign exchange reserves (FER) and **0.746** for stock market capitalization with the critical t (t_t) value of 1.70. It was seen that all the variables (BAB, IAB, FER, and SMC) had their t_C values less than t_t value. And they were said to be statistically insignificant in the model. This means insurance asset base impacted more or had the greatest negative impact on investment in Nigeria followed by

bank asset base lastly foreign exchange reserves FER while SMC had a little positive of **0.746 i**mpart during the period reviewed.

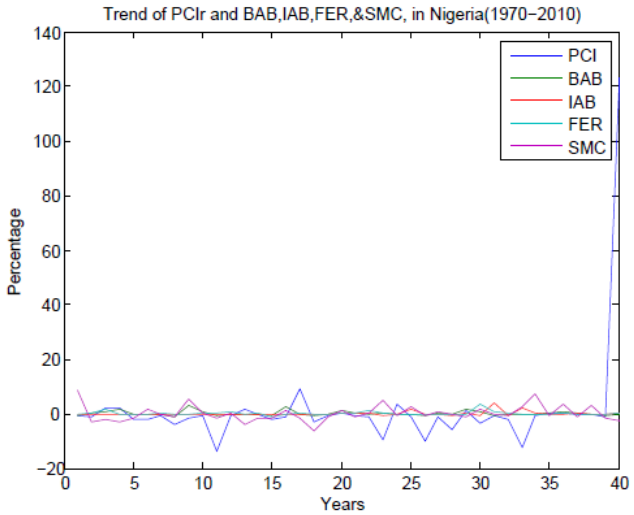
From the regression result, it was evident that the regression model had no good fit. Thus the econometric property of the regression equation is not remarkable, and was not said to reflect a true prediction of financial reforms contribution to economic growth of Nigeria. Its predictive power R^2 of 11.69% shows that financial reform measures mentioned above do not adequately explain and contribute significantly to the variations in the investment volume in Nigeria for the period reviewed. Put it differently, Nigeria's investment volume is not affected positively and significantly by financial reforms in the country. Other variables that also influence investment volume in Nigeria but not included in this study may have accounted for the remaining 88.33% of the variations in IV.

4.3.3 Hypothesis

The hypothesis sought to establish the relationship between per capita income and bank asset base, insurance asset base, foreign exchange reserves and stock market capitalization. In the research hypothesis, it was stated based on this objective thus:

Per capita income has no significant relationship with bank asset base, insurance asset base, stock market capitalization and foreign exchange reserves in Nigeria?

Data that reflect the variables in the above hypothesis were presented. The accompanied Figure below presents an interactive picture of the relationship between the parameters.



Per capita income seems not to go above the negative horizon amidst the reforms parameters.

The log values of the parameters is given as:

$PCIr = a_o + b_1BAB + b_2 IAB + b_3MCR + b_4FER + e$.....Eqtn 3

In Table 4.3 below, the regression result of the above equation was presented.

An extract of the result is as shown below:

$PCI = -4.7058 + 0.0821_{BAB} + 0.1794_{IAB} - 0.1343_{FER} + 0.0074_{SMC} + e$

$t\text{-}_{stat.}$ = (-0. 814) (1.655) (2.604) (-2.625) (0.331)

R^2 = 28.01%, F (4, 36) = 3.5013

Table 4.3: Regression result of the relationship between , Per Capita Income (PCIr) bank asset base (BAB), insurance asset base (IAB), foreign exchange reserve (FER) and stock market capitalization rate (SMCr)

DEPENDENT VARIABLE:	**Per Capita Income (PCIr)**			
Independent variables	**Coefficient**	**t- stat**	**R square**	**F**
constant	-4.7058	-0.814	0.2801	3.5013
BAB	0.0821	1.655		
IAB	0.1794	2.604		
FER	-0.1343	-2.265		

SMC	0.0074	0.331			
Source: Authors computation as extracted from the regression of Appendix D					

(a) Predictors: (Constant), BAB, IAB, FER, and SMC.
(b) Dependent Variable: PCI
R^2 = 28.01%, F (4, 36) = 3.5013
Level of significant = 95% level.

The above regression result shows that within the period under review, average per capita income was -4.7058. Considering the independent variables, a one naira increase in bank asset base would increase/improved per capita income by ₦0.0821. A one naira increase in insurance asset base increases per capita income by only ₦0.1794 , a one naira increase in foreign exchange reserves decreased per capita income by - ₦0.1343, while a naira increase in stock market capitalization increased per capita income by ₦0.074. all other things being equal.

The next activity was to test for the significance of the variations in the dependent variables as explained by the independent variables. The statistics used for this was the f-test statistics. At 95% level of significance and thirty nine degrees of freedom, our computed f (f_C) value was 3.501 yielding negative per capita income, compared to the critical f (f_t) value of 2.65. Since f_C is greater than f_t inversely, the null hypothesis which states that per capita income has no significant relationship with bank asset base, insurance asset base, foreign exchange reserves and stock market capitalization was accepted against its alternative hypothesis. This low per capita income is in support of

For the statistical significance of individual independent variable, the t-test statistics was employed in which case, the independent variables with their computed t-values (t_C) of 1.655 (BAB), 2.604 (IAB), -2.265 (FER) and 0.331(SMCr) were all compared with the critical or table t (t_t) value of 1.70. Among the calculated values of t (t_C), one of the independent variable were statistically significant in the model that is the IAB. While BAB and SMC showed a positive relationship, FER showed an inverse relationship with PCI during the period reviewed. In other words, foreign exchange reserves exerted an insignificant negative effect on per capita income while bank asset base and stock market reserves exerted an insignificant positive effect on PCI during the period reviewed. This means increase in FER led to reduction in PCI while increase in IAB, BAB and SMC would lead to increase in PCI. As can be seen from the regression diagram the PCI was virtually below the zero level.

The econometric property of the estimated equation showed a poor predictive power given its R^2 value of 28.01%, meaning that financial reform measures mentioned above do not adequately explain and do not contribute significantly to the variations in the growth of Nigeria's per capita income for the period considered. The equation therefore shows a marginal prediction of financial system's contribution to economic development of Nigeria. The remaining 71.99% variations in the dependent variable are explained by other variables not included in this study. Examples are crude oil revenue, population growth among others.

V. Conclusion

From the analysis done in here, lots of interesting discoveries have been made. First and foremost, for forty years, Nigeria had been enjoying a relatively stable and a steady- state growth in the economy with the financial system playing a very marginal role in the growth process of the country. For the period of forty years, the study shows that the financial sector made no significant contribution to the growth of the economy (GDPr) given that their respective t_C values of 0.167 (BAB), 1.513 (IAB), - 1.744 (FER) and -1.575 (SMCr) were all less than the t_t value of 1.70. It was opine that there could have been some problems. It is either the gains derived from the financial sector were not channelled or used properly for development practices such as investment or the policy makers or corporate captains had pocketed and exported the gains to "safe heavens" somewhere in the western blocks for selfish and personal interest as was the opinion of the Emanugaa (2008). This must have been one of the impetuses for advocating for reforms in the sector.

For that period, economic growth (GDPr) has not been significantly impacted and no significant contribution was made thereto by BAB, IAB, FER and SMCr given the overall R^2 value of 16.52%. However, an inverse relationship existed between GDPr, SMC and FER. Mismanagement of our reserves as well as misappropriation of the fund and other unfavorable reserve policies of the international monetary authority (ies) could account for this inverse relationship.

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