ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 10, Issue, 02, pp. 33915-33920, February, 2020

RESEARCH ARTICLE OPEN ACCESS

INSURANCE INDUSTRY INVESTMENT AND NIGERIA'S ECONOMIC GROWTH: AN ASSESSMENT

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ARTICLE INFO

Article History:
Received 17th November, 2019
Received in revised form
26th December, 2019
Accepted 02nd January, 2020
Published online 27th February, 2020

KeyWords:

ECM, OLS Multiple Regressions,
RGDP, Insurance investment and Nigeria.

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ABSTRACT

The study investigated the relationship of insurance industry investment in Real Estate and Mortgage, Government Securities, Stocks and Bonds among others with economic growth in Nigeria, as a clear departure from indirect insurance investments and Nigerian economy through the capital market for the prospective investors. Quantitative and time series data were employed through secondary source spanning 1980-2017, while the data were subjected to descriptive and parametric method of analysis. The descriptive statistics revealed the highest mean value (273725.1) for insurance investment in Government securities in relation to the least mean value (441.4586) of the real gross domestic product (RGDP).All the variables employed were also reported to be positively skewed, with highest positive skewness from real gross domestic product (RGDP) while insurance investment in real estate and mortgage (IVRM) had the least positive skewness. Huge standard deviations were also reported for all the variables, indicating a large level of variation in the study data .Meanwhile, the OLS multiple regression results ascertained that both insurance investment in real estate and mortgage (IVRM) and insurance investment in government securities (IVGS) decreased the value of real gross domestic product (RGDP) by 5.7569 and 9.183 respectively and the two variables were not statistically significant at 5% level. Also, the result of ADF unit root test revealed that all the variables were stationary at the first difference while the Johansen co-integration test showed the existence of long run relationship between insurance investment and real gross domestic product. The parsimonious error correction result also revealed that only insurance investment in government securities (IVGS) was statistically significant at 5%, the result also showed0.965982 as ECM(-1) coefficient, which confirmed96.6% adjustment speed of the model towards equilibrium. A concerted effort to allocate adequate financial resources to investments with significant impact on the economy should take prominence and also encourage insurance firms to invest directly into areas outside their traditional function to enhance their investment position, increase their income outlets, and consequently contribute significantly to the country's economic growth and development.

Citation: ***Helen C. Sunday, Olayemi O. Simon-Oke and Imisi J. Ilesanmi*** **2020.** "Insurance industry investment and Nigeria's economic growth: an assessment*", International Journal of Development Research*, 10, (02), 33915-33920.

INTRODUCTION

Nigeria, like other developing nations of the world is made up of different kind of resources such as human, capital and other financial resources put in place to achieve specific goals and objectives dictated by the ruling class, summary of which is to render service(s) in pursuit of economic welfare of nations (Oyetodun and Adesina, 2015). Over the years, attention has been focused on financial institutions and the growth of various countries economy with little emphasis on non-financial institutions such as insurance industry (Eze and Okoye, 2013).

In line with Omoke (2012) Insurance industry is one of the cornerstones of modern-day financial services sector, as they spread the costs of risk events across time and the population which help considerably to reduce the impact of major risk events on the wider economy. This enables individuals and firms to take on and manage risk, thereby encouraging investment and innovation, as well as other economic activities. The availability of insurance services is essential for the stability of the economy in order to make the business participants accept aggravated risks. The central business activity of insurance institutions relates to the evaluation of risk and the spreading of risk over those individuals and

institutions facing risk and wishing to protect themselves against it (Goacher, 2006). The conceptual notation of insurance and insurance institutions according to Ujunwa and Modebe (2011) is the pooling of funds from the insured (policy holders) in order to pay for relatively uncommon but severely devastating losses which may be experienced by the insured. Insurance is a form of contract between two parties where one party called the insurer undertakes to pay the other party called the insured a fixed amount of money on the occurrence of a certain event. Also, according to Isimoya (2013), insurance is a social scheme which provides financial compensation for the effects of a misfortune. The financial compensation is provided from the pool of accumulated contributions of all members participating in the scheme. Ubom (2010) also explained that every activity of individuals, business organizations and the society as a whole has some risk elements. That is, the possibility of misfortune, disaster, unfavourable outcomes, danger and/or adverse situations causing injuries, damages and loss of income, properties and/or lives. And as such, risks threaten human existence and business investments imposing fears on household and corporate individuals. Insurance therefore exists to provide the avenue and mechanism of transferring risk from the person likely to suffer loss to the experts who specializes in the management of risk (Uduak, 2014). While conceptualizes insurance investment, Oyinlola (2006) explains the stimulating activities of insurance companies in all areas of investment ranging from capital, real estate and money markets. Just as no modern economy can survive without insurance protection so also, no national economy can grow without investments (local and foreign). Of all sectors of the economy, insurance industry plays the most important role in the promotion of all forms of investment, first as facilitators and secondly as institutional investors. The principal source of insurance companies' funds according to Oyinlola (2006) is the premium collected from the sale of insurance policies. Life assurance companies generally put their funds in long term investments (primary mortgage loans, corporate bonds and stocks). As a major catalyst in the development of large industrial undertakings, the insurance industry plays important role in the development of the capital market through underwriting support, provision of required capital and active participation in the secondary market (Oyinlola, 2006).

LITERATURE REVIEW

A number of studies have explained the importance of robust insurance investment for economic growth and social security of the citizenry. Arena (2008) finds the existence of a robust causal relationship between insurance market activity and economic growth. Both life and non-life insurance premiums have positive and significant effect on economic growth Insurance activity may also contribute to economic growth by improving the financial system functions, both as a provider of risk transfer and indemnification, and as an institutional investor in the following ways:

- Promoting financial stability;
- Facilitating trade and commerce (the the most ancient insurance activity);
- Mobilizing domestic savings;
- Allowing different risks to be managed more efficiently by encouraging the accumulation of new capital;
- Fostering a more efficient allocation of domestic capital; and
- Helping to reduce or mitigate losses (Skipper, 2002).

In addition, there are likely to be different effects on economic growth from life and non-life insurance (property-liability) given that these two types of insurance protect households and corporations from different kinds of risks that affect economic activity in diverse ways. Moreover, life insurance companies facilitate long term investments rather than short-term investments as is the case for non-life insurance companies. The above studies show the importance of a dynamic insurance system for an economy. The fact is further supported by Jovanovich (1990) and Pagano (1993) who modelled the effect of financial intermediaries on economic growth. The duo submit that financial intermediaries have noticeable impact on economic growth by transforming savings into investment, i.e., funneling savings to firms by improving the allocation and productivity of capital, and by altering the savings rate. With particular emphasis on insurance activity, Skipper (2002) modelled the impact of financial intermediaries (banks, life and non-life insurers) on economic growth in the context of a neoclassical Solow-Swan model, predicting that insurance and banking spur capital stock productivity, which drives the level of output and investment in the economy. Uduak (2014) while investigating the link between investment portfolio of insurance firms and the variables of economic development such as the growth rate of gross domestic product (GDP), unemployment, capacity utilization and inflation rates in Nigeria from 1990 to 2011, using both descriptive and inferential tools; finds that insurance companies in Nigeria got over 95% of income on yearly basis from premium and accumulated large sum of funds after expenditures on claims but invest less than 1% of such funds.

Stock and bonds, government securities as well as real estate properties and mortgages also dominated the investment portfolio of these financial institutions with heavy concentration in the assets of quoted companies. According to Uduak (2014) insurance firms were not making any significant influence on economic development in the country as evidenced in the marginal growth rates of gross domestic products (GDP) and capacity utilization, among others. Bahrami (2014) in his own estimation on the impact of insurance investment on economic growth in Iran during 1981-2011 periods using the modified Ram (1986) model finds that insurance investment has a significant positive impact on economic growth in Iran. The Nexus between Economic Growth and Insurance Business in Nigeria was also considered by Oyedotun and Adesina (2015) using Secondary data from 1980 to 2011, and employing a simple econometric approach. The Findings show that there exists a link between insurance business and economic growth in Nigeria within the period of study. The empirical results also show that insurance sector and economic growth are related. Omoke (2012) empirically assessed the insurance market activities in Nigeria with the view to determining its effect on economic growth from1970-2008, using the Johansen co-integration and vector error correction approach. The findings show the existence of a long run relationship among the variables, and also that insurance sector has no positive and significant effect on economic growth in Nigeria within the period of study. The findings also reveal low insurance market activity in Nigeria and that Nigerians have not fully embrace the insurance industry despite its importance to the growth of the economy. Also,

while investigating the impact of insurance practice on the growth of Nigerian economy, Eze and Okoye (2013) used the insurance premium income and total insurance investment among others as determinants of insurance practice.The Johansen co-integration test and error correction model was also used and the findings reveal that the insurance premium capital significantly impacted on economic growth in Nigeria; and there exist a causal relationship between insurance sector development and economic growth in Nigeria.

Mojekwu *et al*. (2011) also examined the impact of insurance contributions on economic growth in Nigeria. The study covered the period between 1981 and 2008 using the dynamic factor model. The study finds a functional positive relationship between the volume of insurance contributions and economic growth in Nigeria. Yinusa and Akinlo (2013) while analyzing both the long and short run relationship between insurance development and economic growth in Nigeria over the period 1986 – 2010 employed the co-integration and error correction model (ECM), the study finds that insurance development co-integrated with economic growth in Nigeria. This implies the existence of long run relationship between insurance development and economic growth in Nigeria. The result also shows that physical capital and interest rate both at contemporary and one lagged value has significant positive effect on economic growth in Nigeria, while physical capital and inflation has negative long run relationship with economic growth. The results further indicate the significant contribution of insurance to economic growth in Nigeria. A causal relationship was also considered by Akinlo (2013) between insurance and economic growth in Nigeria over the period 1986-2010. The Vector Error Correction model (VECM) was adopted. The analysis shows that GDP, premium, inflation and interest rate co-integrated with GDP as endogenous variable. The study also finds no causality between economic growth and premium in the short run while premium, inflation and interest rate Granger cause GDP in the long run, which means there is unidirectional causality running from premium, inflation and interest rate to GDP.

Ojo, (2012) conducted a test of relationships between economic growth and insurance sector development in the Nigerian economy using the fixed-effect model with secondary data spanning 1985-2009. Gross domestic product (GDP) was adopted as a proxy for the level of economic growth while numbers of insurance companies (NIC), premium of life-insurance (PLI), premium of non-life insurance (NLP), total insurance investment (TII), and inflation rate (INF) were used in measuring insurance sector growth. The study finds that insurance sector growth and development positively and significantly affect economic growth. Wadlamannati (2008) examined the effects of insurance growth and reforms on economic development in India from 1980-2006. Growth of insurance penetration (life, non-life and total) was used as measure of insurance sector growth while ordinary least square (OLS) and co-integration and error correction model (ECM) were also considered as analytical techniques. The study finds positive contribution of insurance sector to economic development and a long-run equilibrium relationship between the variables also exists. The study also confirms that while the reforms in the insurance sector do not affect economic activity, the growth of the sector has positive impact on economic development. Torbira and Ngerebo (2012) also examined the correlation between insurance risk management (represented by claims payment) and Gross Fixed Capital Formation (GFCF) in Nigeria using data from 1980-2011. The study employed the ordinary least square, Johansen co-integration and Granger causality test. The findings indicate that claims paid on Accident, Fire, Motor vehicle and Employers' Liability insurance policies affect growth in GFCF in the short run while a unidirectional causality flow exists from GFCF to claims paid on Fire and Marine insurance policies. Extant Studies have shown serious concern for the role of insurance investment in the growth and development of the economy; however, a good number of these studies conceptualizes insurance investment as a pool of resources made available through the capital markets as loans to the prospective investors for investment purposes without considering the fact that insurance companies can as well venture into direct investments which can affect the economy. It is in the light of this that this study intends to investigate the impact of insurance companies' investment on Nigeria's economic growth; with particular reference to direct investment in Real Estate and Mortgage, Government Securities, and Stocks and Bonds in relation to Nigeria's economic growth.

MATERIALS AND METHODS

Theoretical Underpinning and Model

The study adopted McKinnon (1973) and Shaw (1973) financial liberalization theory; and Bahrami (2014) finance-growth nexus theory as major theoretical frameworks for model specification. The former explains financial development as a promoter of economic growth through channels of marginal productivity of capital, efficiency of channeling savings to investment; while the latter also argue for financial liberalization as being capable of exerting positive effect on growth rates as interest rate levels rise towards their competitive market equilibrium, while resources are efficiently allocated. Based on the assumptions of the two theories it is likely that insurance institutions, as a sub unit of the financial system is capable of pooling higher savings which ultimately fosters economic growth through changes in quality and quantity of investment (Reinhart and Tokatlidis,2003).In the same vein, the savings from premiums collected by insurance companies are made available through capital markets and other interest-bearing assets, as loans for investment purposes such as real estate and mortgage, government securities, and stocks and bonds. This indirectly translates to economic growth (Favero, 2000cited in Olayungbo and Akinlo, 2016). The import of McKinnon and Shaw (1973), Favero (2000), Bahrami (2014), and also following the provision of insurance ACT 2003 as amended, and insurance ACT 1999, justifies the specification of the study model as follows;

$GDP=f\ (IVRM, IVGS, IVSB)$ ----------(1)

For estimation purposes, eq. (1) is re-written as;

$GDP_t = \beta_0 + \beta_1 IVRM_t + \beta_2 IVGS_t + \beta_3 IVSB_t + \mu_t$---------- (2)

Where;

GDP = Gross Domestic Product
IVRM = Insurance Investment in Real Estate and Mortgage
IVGS = Insurance Investment in Government Securities
IVSB = Insurance Investment in Stocks and Bonds
β_0 *= Constant Parameter*
$\beta_1, \beta_2, \beta_3$ *= Estimation parameters*
μ_t *= Error term*

Estimation Techniques: Apart from using the descriptive statistics and multiple regressions, the study also used co-integration and dynamic error correction model as estimation techniques. The unit root test aspect of the techniques examines the stationary level of each variable in the model using Augmented Dickey-Fuller (ADF) equation such that;

$$\Delta Y_t = \alpha + \beta T + \delta Y_{t-1} + \gamma\, i\, \Delta Y_{t-i} + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3)$$

While the co-integration analysis ascertains the existence of long-run relationship between variables by applying the Johansen (1988) co-integration test, the approach of Johansen is based on the maximum likelihood estimation of the matrix (Γ - I) under the assumption of normal distributed error variables. Following the estimation, the hypotheses H_0: r = 0, H_0: r = 1… H_0: r = M-1 are tested using likelihood ratio (LR) tests. This can also be expressed as

$$Y_t = \mu + T\, Y_{t-1} + \mathcal{E}_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (4)$$

The equation (4) can be re-written thus;

$$\Delta x_t = k\, X{-}1\ i{=}1\ \Gamma i \Delta x_{t-i} + \Pi x_{t-1} + \mu 0 + \Psi D_t + \varepsilon_t \ldots\ldots\ldots\ldots \quad (5)$$

The number of co- integrating vectors is identical to the number of stationary relationships in the Π-matrix. If there is no co-integration, all rows in Π must be filled with zeros. If there are stationary combinations, or stationary variables, in Π then some parameters in the matrix will be non-zero. There is a simple mathematical technique for answering the problem raised here. The rank of Π matrix determines the number of independent rows in Π, and therefore also the number of co-integrating vectors. The rank of Π is given by the number of significant eigenvalues found in Π^. Each significant eigenvalue represents a stationary relation. Under the null hypothesis of {x} t~I (d), with d > 1, the test statistic for determining the significance of the eigenvalues is non-standard, and must be simulated.

The application of Error Correction Model (ECM) determines the short-term dynamics and the direction of errors between dependent and independent variables. Error Correction Models (ECMs) entails a series of longitudinal models which seeks to appraise the adjustment speed at which a criterion variable returns to equilibrium after a change in Predictor variables as expressed by Banerjee *et al*. (2015); Hamilton, (1994) and Johansen (1995) in the following ECM estimation equation.

$$\Delta Z = \Phi(B)\, \Delta Z\tau{-}1 + \mu + \beta\, \varepsilon\tau 1 + v_t \ldots\ldots\ldots\ldots\ldots \quad (6)$$

A priori Expectations: The study envisages positive relationship between the dependent and independent variables of the specified model such that; $\beta_1, \beta_2, \beta_3 > 0$

Data identification and Source: The study had identified variables such as the Real GDP, as the dependent variable and a measure of country's economic growth, while the investment of insurance companies in real estate and mortgage (IVRM); government securities (IVGS); stocks and bonds (IVCH) which represent the independent variables and measures of total investment in the insurance industry. Secondary and time series data in respect of the identified variables were sourced from Central Bank of Nigeria (CBN) statistical bulletin, National Bureau of Statistics, Central Bank of Nigeria (CBN) annual report and financial statements, various editions spanning1980-2017.

RESULTS AND DISCUSSION

Descriptive Statistics: The descriptive statistics shown in Table 1 reveals the underlying trend of the respective variables employed by the study.

Table 1. Results of Descriptive Statistics on Real Gross Domestic Product (RGDP) and Insurance Companies' Investment in Real Estate and Mortgage (IVRM), Government Securities (IVGS), and Stocks and Bonds (IVSB) in Nigeria from 1980 to 2017

	RGDP	IVRM	IVGS	IVSB
Mean	441.4586	200091.0	273725.1	190122.
Median	372.5250	47869.29	22085.48	179942.5
Maximum	950.1100	1250576.	1852146.	987437.0
Minimum	204.3000	211.9500	784.2800	1423.760
Std. Dev.	205.5075	335364.8	504904.8	208477.8
Skewness	1.009668	2.212014	2.119589	1.805644
Kurtosis	2.043717	1.869710	1.544249	1.238289.
Jarque-Bera	5.777752	48.94112	43.25414	46.64285
Probability	0.055639	0.000000	0.000000	0.000000
Sum	15009.59	6803094.	9306653.	6464155.
Sum Sq. Dev.	1393700.	3.71E+12	8.41E+12	1.43E+12
Observations	37	37	37	37

Source: Extract from E-view 8 Output,2017

The insurance companies' investment in Government securities (IVGS) exhibited the highest mean value (273725.1) while the relatively least mean (441.4586) was attributed to real gross domestic product (RGDP). The huge standard deviation of all variables signifies a large level of variation in the data employed for the study. All employed variables were positively skewed as real gross domestic product (RGDP) had the highest positive skewness, while insurance investment in real estate and mortgage (IVRM) had the least positive skewness. Also, the level of Kurtosis of the real gross domestic product (RGDP) was very high at 2.043717 while insurance investment in stocks and bonds (IVSB) had the least Kurtosis of 1.238289. The Jarque-Berra probability values for all the variables simply show that all the variables are not normally distributed.

Unit Root Test (Augmented Dickey Fuller): Given the critical values at 5% greater than ADF statistics for all the variables employed as shown in Table 2, it is evident that all the variables were stationary at the first difference[I(1)] through the ADF unit root test. From the ordinary least square multiple regression results in Table 3, it can be seen that the coefficient of the constant is 5.713763 which shows that if all other variables are kept at a constant, the real gross domestic product (RGDP) will increase by 5.713763 units. Other explanatory variables with the exception of insurance investment in stocks and bonds (IVSB) failed to conform to the a priori expectations based on their negative responses to the country's real gross domestic product. The two variables (IVRM and IVGS) tend to decrease the value of real gross domestic product (RGDP) by 5.7569 and 9.183 respectively. The two variables also were not statistically significant at 5% level. The result also shows R-square of 0.850059, which implies that approximately 85.01 percent variation in Real Gross Domestic Product is explained by the explanatory variables employed within the period of the study while the remaining 14.99 percent variations were explained by other variables not captured in the model. The understanding of this is that the specified model captures the variables efficiently.

The computed F-value from the multiple regression remains at41.10246 with 0.000000 probability level which also depicts a statistically significance overall goodness of fit in the specified model of the study. The johansen co-integration result showing the trace test outcome in Table 4 reveals existence of four signed co-integration equations (from none to at most 4) which indicates the presence of a long run relationship amongst employed variables of the study, at the 0.05 significance level.

Table 2. Results of Unit Root

Variable	ADF Test Statistics	Critical Value (5%)	Order of Integration	Test Equation specification
D(RGDP)	-6.241686	*-3.653730* *-2.957110* *-2.617434*	I(1)	Intercept
D(IVRM)	-5.569260	*-3.653730* *-2.957110* *-2.617434*	I(1)	Intercept
D(IVGS)	-5.444571	*-3.653730* *-2.957110* *-2.617434*	I(1)	Intercept
D(IVSB)	-7.459400	*-3.653730* *-2.957110* *-2.617434*	I(1)	Intercept

Source: Extract from E-view 8 Output, 2017

Table 3. Result of OLS Multiple Regression

Dependent Variable: D(RGDP)				
Method: Least Squares				
Date: 03/26/17 Time: 10:33				
Sample: 1980- 2017				
Included observations: 37				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	*5.713763*	*0.226886*	*25.18345*	*0.0000*
D(IVRM)	*-0.057569*	*0.039705*	*-1.449938*	*0.1578*
D(IVGS)	*-0.091830*	*0.051226*	*-1.792654*	*0.0835*
D(IVSB)	*0.410286*	*0.041053*	*9.994164*	*0.0000*
R-squared	*0.850059*	*Mean dependent var*		*5.995720*
Adjusted R-squared	*0.829378*	*S.D. dependent var*		*0.431636*
S.E. of regression	*0.178293*	*Akaike info criterion*		*-0.475720*
Sum squared resid	*0.921867*	*Schwarz criterion*		*-0.251255*
Log likelihood	*13.08724*	*Hannan-Quinn criter.*		*-0.399171*
F-statistic	*41.10246*	*Durbin-Watson stat*		*1.538338*
Prob(F-statistic)	*0.000000*			

Source: Extract from E-view 8 Output, 2017

Table 4. Result of Johansen Co-integration Test

Date: 08/07/17 Time: 10:58				
Sample (adjusted): 1998–2017				
Included observations: 19 after adjustments				
Trend assumption: Linear deterministic trend				
Series: D(RGDP) D(IVRM) D(IVGS) D(IVSB)				
Lags interval (in first differences): 1 to 1				
Unrestricted Co-integration Rank Test (Trace)				
Hypothesized		*Trace*	*0.05*	
No. of CE(s)	*Eigenvalue*	*Statistic*	*Critical Value*	*Prob.***
*None **	*0.997637*	*243.2887*	*69.81889*	*0.0000*
*At most 1 **	*0.992618*	*140.4737*	*47.85613*	*0.0000*
*At most 2 **	*0.890516*	*57.02532*	*29.79707*	*0.0000*
At most 3	*0.677802*	*19.42175*	*15.49471*	*0.6821*
Trace test indicates 3 co-integrating eqn(s) at the 0.05 level				
** denotes rejection of the hypothesis at the 0.05 level*				
***MacKinnon-Haug-Michelis (1999) p-values*				
Unrestricted Co-integration Rank Test (Maximum Eigenvalue)				
Hypothesized		*Max-Eigen*	*0.05*	
No. of CE(s)	*Eigenvalue*	*Statistic*	*Critical Value*	*Prob.***
*None **	*0.997637*	*102.8150*	*33.87687*	*0.0000*
*At most 1 **	*0.992618*	*83.44835*	*27.58434*	*0.0000*
*At most 2 **	*0.890516*	*37.60357*	*21.13162*	*0.0001*
At most 3	*0.677802*	*19.25401*	*14.26460*	*0.0675*
Max-eigenvalue test indicates 4 co- integrating eqn(s) at the 0.05 level ** denotes rejection of the hypothesis at the 0.05 level*				

Source: Extract from E-view 8 Output, 2017

The maximum Eigenvalue also attests to this with the display of four signed ranked co-integration equations which also shows the presence of a long run relationship amongst all the employed variables of study. Since the result shows the existence of a long-run relationship amongst the employed variables and therefore it is expedient to correct the errors for the short and long run dynamics via the Error Correction model (i.e. Parsimonious Error Correction Model).

Error Correction Model

Table 5. Parsimonious Error Correction Model

Dependent Variable: D(RGDP)				
Method: Least Squares				
Date: 03/26/17 Time: 11:09				
Sample (adjusted): 1980-1998				
Included observations: 18 after adjustments				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	*3.781402*	*0.435245*	*8.687987*	*0.0000*
D(IVRM)	*0.027360*	*0.022220*	*1.231352*	*0.2418*
D(IVGS)	*0.215751*	*0.055641*	*3.877563*	*0.0022*
D(IVSB)	*0.044626*	*0.070683*	*0.631352*	*0.5397*
ECM(-1)	*-0.965982*	*0.224477*	*4.303254*	*0.0010*
R-squared	*0.968345*	*Mean dependent var*		*6.375163*
Adjusted R-squared	*0.955155*	*S.D. dependent var*		*0.327205*
S.E. of regression	*0.069291*	*Akaike info criterion*		*-2.239800*
Sum squared resid	*0.057615*	*Schwarz criterion*		*-1.943009*
D likelihood	*26.15820*	*Hannan-Quinn criter.*		*-2.198876*
F-statistic	*73.41665*	*Durbin-Watson stat*		*1.951712*
Prob(F-statistic)	*0.000000*			

Source: Extract from E-view 8 Output, 2017

The result of parsimonious error correction in Table 5 shows all the explanatory variables not statistically significant at 5% level, with the exception of insurance investment in government securities (IVGS).This agrees with the findings of Ujunwa and Modebe (2011).The result further explained that 96.8% of the variations of the dependent variable is captured by the independent variables while the ECM(-1) coefficient displays a rightly signed negative value of 0.965982 which indicates and signifies the ability of the specified model to make 96.60% adjustment towards equilibrium and this could be attributed to the data sets as they exhibit non normal distribution and other factors which might not have been captured in the study. The F-statistics value (73.42) also show a good line of fit for the specified model of the study.

Conclusion

The study discovered among others that investment in real estate and mortgage and that of government securities negatively and insignificantly related to the real gross domestic product in the country. Therefore, the level of investments made by the insurance companies through the investment in real estate and mortgage, and investment in government securities are insignificant to foster economic growth in the nation. Also, the allocation of adequate financial resources to investments with proper spread such as those with significant impact on the economy should take utmost priority. There is a need for paradigm shift in the operations of insurance investment such that insurance firms could also invest directly into areas outside their traditional function to augment the investment in loanable funds in the capital markets for other investors. This could enhance the investment position of insurance firms, facilitate further increase in their income outlets, and consequently contribute significantly to the country's economic growth and development.

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