

## Nexus between Economic Growth and Insurance Business in Nigeria

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### Abstract

The role of insurance sector in mitigating sudden and devastating occurrences thereby stimulating economic growth cannot be over emphasized, however, no consensus has emerged on the impact of insurance development on economic growth. Hence the need to inquire not only the growth of the insurance sector in Nigeria but also how the sector has impacted economic growth. Data were collected from secondary sources and it was regressed using ordinary least square at 95% significant level. It was discovered that there is relationship between insurance business and economic growth within the period of study.

**Keywords:** Insurance sector, Economic growth, investment.

### Introduction

Nigeria, like other developing nations of the world are made up of different kind of resources-human, capital and systems 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 welfare, or in fulfilling 'democratic dividend promised during electioneering campaigns. The people, the non human capital (facilities) and the systems are coordinated in order to achieve the given objectives. The facilities are comprises of buildings, infrastructure and support services. The system is the inter-link and the web that binds people and facilities together and turns them into a production system. As a production system, it is subject to certain element of risk, wear and tear apart from the fact that both facilities and the people respond to the dictates of life cycle. The sustenance of a virile system implies proactive management as re-echoed by Thornicroft (2005) when he concluded that human or non human management has gone beyond the day-to-day routine activities. Considerable attention has been devoted to evaluating the relationship between economic growth and financial sector of the economy. Most research on this sector centered on banking systems and securities markets with little research on insurance sector, despite the fact that banking, securities markets and insurance perform related functions in the economy. According to Favara (2003) and Levine (2004), research efforts so far have not examined the impact of other financial markets or instruments on economic growth in similar depth, compared to the vast literature focusing on bank, stock and bond markets and their respective environment, the insurance sector has hardly been investigated in its role vis-à-vis economic growth. The few research efforts on the insurance-growth help emphasize the importance rather than concerned with negative effects the insurance sector has transmit onto the economy (e.g. Das et al, 2003) or treats the insurance-growth-link as a side issue.

Insurance is peculiar by performing slightly different economic functions from other financial services, hence attention is turn on the functions, contribution and requirement that necessary for the sector to flourish and to make tangible contribution to economic growth and development in Nigeria. The British colonial government introduced insurance business into Nigeria in 1910. Before this time some forms of traditional social insurance had been in existence in every part of Nigeria. This was in the form of mutual and social scheme, which evolved through the extended family system, age grades and clan union of African cultures (Osoka, 1992).

However there are evidences that suggested that insurance contributes both in numerical growth and otherwise to Nigerian economic by improving the money transmission mechanism and by complementing the role of banks and other financial institutions in an efficient mix of activities than would be undertaken in the absence of risk management instruments. Olalekan and Akinlo (2013) posited that Insurance is the cornerstones of modern-day financial services. Apart from its traditional role of managing risk, insurance market acts as both as intermediary and as provider of risk transfer and indemnification which enabled it promote growth by allowing different risks to be managed more efficiently, promoting long term savings and encouraging the accumulation of capital, serving as a conduit pipe to channel funds from policy holders to investment opportunities, thereby mobilizing domestic savings into productive investment (Skipper, 1997 and Arena, 1998).

Given the growing importance of the insurance sector and the increasing number of interlinks to other financial sectors, the evolving role of insurance companies vis-à-vis economic growth and stability should be of growing relevance for policy makers and supervisors. It is observed that the last decades, financial sector has witness fast growing insurance market and activities in both developed and developing economies in the process of financial liberalisation and financial integration (Brainard, 2008), which raises questions about its impact on economic growth.

According to Vayanos and Hammound (2006) a thriving insurance sector is not only evidence of an efficient financial service sector, but it is also a key barometer for measuring a healthy economy. Insurance is defined as the act of pooling funds from many insured entities (known as exposures) in order to pay for relatively uncommon but severely devastating losses which can occur to these entities. The insured entities are therefore protected from risk for a fee, with the fee being dependent upon the frequency and severity of the event occurring (Encarta dictionary, 2010). Hence insurance is a commercial enterprise and a major part of the financial services industry. This sector represents the backbone of Nigeria's risk management system, ensures financial security, serves as an important component in the financial intermediation chain, and offers a ready source of long term capital for infrastructural projects. The role of insurance in the growth and development of our economy cannot be overemphasized, it mitigates the impacts of risks and positively correlates to growth as entrepreneurs cover their exposures, otherwise risk-taking abilities are hampered. Thus, a strong and competitive insurance industry is a compelling imperative for Nigeria's economic development and growth.

This study seeks to explore the nexus between the insurance sector and economic growth and thereby contribute empirically to the work on relationship that exists between economy and insurance sector. The need for this as result of growing importance of the insurance growth observed from the increasing share of the insurance sector in the aggregate financial sector in almost every developing and developed country, hence it is expedient to fill gaps in the literature that inquire on factor responsible for rapid growth of the insurance sector in the country and the impact of these on economic growth and development over the year. The objective of this paper is to examine factor responsible for the growth of insurance industry in Nigeria and its impact on economic growth and development. The paper is organized into sections as follows; section one is the introduction, section two is conceptual and theoretical framework, section three is the empirical framework, section is the models and methodology while the last section is the findings and recommendations of the study.

### **Conceptual and Theoretical Framework**

In defining insurance business Scholars has aggregate the fact that insurance business guarantees the entrepreneur and promoters of innovation to take risks that is necessary to make life better and not get burn in the process, Adebisi (2006) posited that insurance is a complicated issue which involve economic and social device for the handling of risks to life and property. He explains that It is social in nature because it represents the cooperation of various individuals for mutual benefits by combining together to reduce the consequence of similar risks. As every new area of risks and since with every passing day a new insurance package is amounted to take care of more and more areas of risks, the insurance booms. Nwite (2005) defined insurance as a legal contract, a legal contract which is an agreement between two or more parties who are legally bound to fulfill a promise or a number of promises contained in the contract deed. He further posited that insurance can be classified as a contract made by a company or society, or by the state, to provide a guarantee of compensation for loss, damage, illness, death and so on in return for regular payment. But Agbaje (2005) defined insurance as the business of pooling resources together to pay compensation to the insured or assured (i.e. the policy holder) on the happening of a specified event in return for a periodic consideration known as premium. He note that an insurance contract is usually evidenced by a document called the insurance policy which is usually signed at the foot by the insurer or assurer or his agent. Gollier (2003) argued that insurance involved the transfer of risk from one individual to another, sharing losses on an equitable basis by all members of the group. The group, known as insurance company, must increase its hold on the premium and widen its profit margin to cope with the demand of their customer. Oke (2012) opined that insurance is designed to protect the financial wellbeing of an individual, company or other entity in case of unexpected loss. According to him, some forms of insurance are required by law; while others are optional agreeing to the terms of an insurance policy creates a contract the insurer and the insured. Ajayi (2002) posited that insurance as a promise of reimbursement in the case of loss, paid to people or company so concerned about hazards they have prepayments to an insurance company.

Agbakoba (2010) opined that insurance business has come a long way and trace it to when Lloyd's sent runners to the water front to pick up news of ship movements and later would send policy around London for subscription by anyone with sufficient means. But Badejo (1998) argued the concept of insurance in its modern form was introduced into Nigeria by the British in the closing years of the 19th century with the establishment of trading posts in what is now known as Nigeria agents towards the end of the 19th century by European trading companies mostly British. These companies started affecting their insurance with established insurers in the London insurance market. Later, British insurers started appointed Nigerian agents to represents their interest in the country. Oke (2001) argues that the origin of modern insurance are intertwined with the advent of British trading companies in Nigeria and the subsequent increased inter-regional trade. Adeyemi, (2005) posited that increased trade and commerce led to increased activities in shipping and banking, and it soon became necessary for some of the foreign firms to handle some of their risks locally. Trading companies were therefore subsequently granted insurance agency licenses by foreign insurance companies. Such licenses made it possible for such firms to issue covers and assist in claims supervision. The first of such agency in Nigeria came

into force in 1918 when the Africa and East trade companies introduced the Royal Exchange Assurance Agency. Osunkunle (2002) opined that the first branch office in Nigeria was the Royal Exchange Assurance in 1921, later followed by other British companies. Other agencies include Patterson Zochonis (PZ) Liverpool, London and Globe, BEWAC's Legal and General Assurance and the Law Union and Rock (Jegade, 2005). This relationship later metamorphosed into full branch offices of their parent companies in Britain.

There was an initial slow pace of the growth of the insurance industry in Nigeria, particularly between 1921 and 1949. This has been traced to adverse effect of the World War II on trading activities both in the United Kingdom and Nigeria. As soon as the war ended business activities gradually picked up again, and insurance industry in Nigeria began to record remarkable improvement in growth (Gbede, 2003). It was not until 1958 that the first indigenous insurance company, the African Insurance Company Limited, was established. Out of twenty-five insurance companies that existed in 1960, only seven were indigenous and their total market share was far below 10% of the total share in the industry (Osoka, 2002). The fallout from this was the drain on Nigeria foreign exchange earnings. As a result of this, a parliamentary committee was therefore set up in 1964, under the chairmanship of Honourable Obadan, to look into foreign domination of insurance. Obadan committee's recommendation could not go beyond sensitization of Government over the danger inherent in the foreign domination of insurance industry (Usman, 2009). But it led to first major step at regulating the activities of insurance business in Nigeria with the establishment of department of Insurance in the Ministry of Trade and which was later transferred to the Ministry of Finance. The report also led to the enactment of Insurance Companies Act of 1961, which came into effect on 4th May, 1967. By the provisions of the Act, the office of the Registrar of Insurance was created to supervise insurance practice. Other provisions of the Act included minimum capital requirement and other conditions for registration, monitoring, and control of insurance operation generally. This was followed by a series of legislation which sought to further the cause of insurance regulation in the country.

In 1986, as a result of introduction of Structural Adjustment Programme (SAP), there was a noticeable increase in the number of insurance companies in the country and this come with the need for regulation by government. The first major attempt at regulating insurance in the country was the promulgation of the Nigerian Insurance Decree, 1976. The biggest development in the Nigerian insurance is the refurbishment of insurance institutions includes the National Insurance Commission (NAICOM) which was established by the penultimate military administration in the country in 1997 and the her taking over of the largest insurer –National Insurance Company of Nigeria (NICON), the power of NAICOM under the prevailing legislation for the industry in the country, as contain in the Insurance Act 2003. Section 86 of the Act provides that subject to the provision of the Act, NAICOM shall be responsible for administration and enforcement of the provisions of the insurance Act; criteria and standards for registration, policy provision, rates, expenses limitations, valuation of asset and liabilities, investment funds, and the qualifications of sale representatives are set by NAICOM.

The number of insurance companies increased from 70 in 1976 to 110 in 1990 and to streamline insurance business activities and stem the upsurge of the “mushroom” insurance companies, insurance, capital base was raised from ₦1 million to ₦2 million. As a result, fifty-seven out of one hundred and fifty-two insurance companies qualified for registration. This was followed by tighter control aimed at fortifying insurance sector in Nigeria with introduction of rounds of recapitalization over the past 8 years. The first of the two round of recapitalization occurred in December 2002 where out of 117 insurance companies, 14 of them did not make it and were liquidated also in 2003 in line with passing of the 2003 insurance act which required insurance companies to increase their capital bases from N20 million to ₦150 million for life businesses, ₦70 million to ₦300 million for non-life businesses, and ₦150 million to ₦350 million for reinsurance businesses.

The last major recapitalization process which was introduced by the insurance Act 2003. Section 9 of the Act raised the minimum capital requirement by as much as 650% with the exercise ended in 2004, Oni (2010) observed that the exercise left over 107 insurance and reinsurance companies in the market and it was perceived as not achieving the aim of reducing the number of players in the industry. Section 9(4) of the Insurance Act provides that NAICOM may increase the amount of minimum capital requirement from time to time. The then Minister of Finance announced a new minimum capital regime in September 2005 which was to be complied with by the end of February 2007. While previous Insurance Act 2003 only required new capital of less than ₦500 million (about \$ 4 million); the 2005 recapitalization directive required a minimum of ₦2 billion (about \$ 15 million) for life insurance and ₦3 billion (about \$ 23 million) for non-life business. The 2005 recapitalization changed the landscape considerably as many companies were forced to merge in compliance with the follow-up directive of NAICOM that the requirements were only to be met through mergers and acquisitions. These lead to phenomenal increase in the total asset of insurance companies N573,152.48 billion (National Insurance commission, 2010).

**Table 1:** Capital base for Nigerian insurance institutions.

Category of insurance	Old capital base (2003) (₦)	New capital base (2005-till date) (₦)	Increase in percentage (%)
Life Insurance	150 million	2 billion	1,233.0
General Insurance	200 million	3 billion	1,400.0
Composite	350 million	-	-
Reinsurance	350 million	10 billion	2,757.0

**Source:** Oni (2010)

Table 1 shows the old and the new capital base of the Nigerian insurance institutions with the percentage increases.

At the end of the exercise, government gives the summary of the exercise in November 2007, that out of the 104 insurance companies and 4 reinsurance companies in existence before the pronouncement, 49 insurance and 2 reinsurance companies met the new level and were certified. Based on the new capital base, insurers are to raise their capital according to the risks they underwrite; this is to enable insurers to concentrate on businesses in which they have core competence. The regulatory institution, NAICOM, is not looking at the direction of fresh recapitalization but a risk-based capital which will enable the insurance companies to recapitalize in accordance with the risks it is taking.

According to Akanro (2008), government regulations over time have supported the prospect of growth for the industry an reposition the in industry in the quest for economic development. According to National Bureau of Statistics, (2009), insurance sector accounted for 61% of total jobs in the financial sector of the economy and insurance agencies, brokerages and providers of other related-insurance services accounted for 39% of jobs in the industry. The structure of the sector is characterized by the small establishment with a few large ones which accounted for many of the jobs in the industry. These large establishments often employ 250 or more workers but it is noted that agencies and brokerages tend to be much smaller frequently employ fewer than 20 workers. Many insurance carriers' home and regional offices are situated near large urban centres. Insurance companies which deal directly with the public are located throughout the country. Most of the workers are working in local insurance company offices and other work for independent firms in small towns and cities throughout the country.

Also government propagated regulations in recent times to support the growth of the industry which include compulsory insurance for all public buildings and those under construction; compulsion for all non government organisations operating in the country to enroll their employees in National Health Insurance scheme to boost the resources base of the scheme. The National Insurance Commission is working to ensure that any inhibitions to local insurers participating in the oil and Gas business are removed. It has also worked to ensure that "consortium bidding" is strongly considered by the Oil and Gas companies in selecting insurers for participation in the Oil and Gas business. This is to achieve a wider spread in participation by local insurance companies; an upward review of interest rates by the Central Bank that are currently earned on the Statutory Deposits of insurance companies which are placed with the CBN and the plan by the regulatory authority to address the tax law, which places separate tax on gross premium.

The practice of insurance sector in Nigeria is noticeable in fund transmission mechanism that is mobilization and transferring of funds from surplus region to the needed sectors to finance real sector investment, managing the risks of households and firms through the issuance of insurance policies. Arena (2006) posited that insurance market activity, both as financial intermediary and as provider of risk transfer and indemnification, promote economic growth by allowing different risks to be managed more efficiently encouraging the accumulation of new capital, and by mobilizing domestic savings into productive investments. He also observed that insurance market activity not only contribute to economic growth by itself but also through complementarities with the banking sector and the stock market. In the first case, the joint effect with the banking sector, the development of insurance activity could encourage bank borrowing by reducing cost of capital, which influences economic growth by increasing the demand for financial services (Grace and Rebello, 1993). Zou and Adams, (2006) opined that property insurance facilitate bank intermediation activity by partially collateralizing credit, which would reduce bank's credit risk exposures and promote higher levels of lending. At the same time, the development of the banking sector may facilitate the development of the insurance activity through a much more effective payment system allowing an improved financial intermediation of services (Webb, Grace, and Skipper, 2002). But USAID, (2006) posited that the conjoint effect with the stock market, the development of the insurance activity, in particular life insurance companies, could promote stock market development by investing funds (savings) raised through contractual saving products in stocks and equities.

Theoretical conceptions explain that financial systems influence savings and investment decisions and hence long-run growth rates through the following functions (i) lowering the costs of researching potential investments, (ii) exerting corporate governance, (iii) trading, diversification, and management of risk, (iv) mobilization and pooling of savings, (v) conducting exchanges of goods and services, and (vi) mitigating the

negative consequences that random shocks can have on capital investment (Levine, 2004). Financial intermediaries support development through the improvement of these functions (i.e., the amelioration of market frictions such as the costs of acquiring information, making transactions, and enforcing contracts and allowing economies to more efficiently allocate resources (savings) across investments). However, the positive effects of financial development are tailored by the macro policies, laws, regulations, financial infrastructures and enforcement norms applied across countries and time. In support of this proposition,

Theoretical studies and empirical evidence have shown that countries with better-developed financial systems enjoy faster and more stable long-run growth. Well-developed financial markets have a significant positive impact on productivity, which translates into higher long-run growth. Merton (1995) citing Solow's (1956) noted that in the absence of a financial system that can provide the means for transforming technical innovation into broad implementation, technological progress will not have significant and substantial impact on the economic development and growth".

In analogy to other financial sectors (Blum et al 2002), the link between the insurance and the real sector can be classified in terms of causality with respect to five possible hypotheses: (1) no causal relation; (2) demand following, e.g. economic growth leads to a rise in demand for insurance; (3) supply-leading, e.g. growth in insurance smoothes short-term economic volatility and thus induces economic growth in the long run, plus growth in investment by insurance companies induces economic growth; (4) negative causal link from insurance to growth (e.g. growing insurance causes more reckless behaviour ("moral hazard"), resulting in a less efficient and more volatile economy; (5) interdependence. In the following, we discuss the various functions performed by the insurance sector and its possible link to economic growth.

### Literature Review

Insurance is one of the cornerstones of modern-day financial services sector. In addition to its traditional role of managing risk, insurance market activity, both as intermediary and as provider of risk transfer and indemnification, may promote growth by allowing different risks to be managed more efficiently, promoting long term savings and encouraging the accumulation of capital, serving as a conduit pipe to channel funds from policy holders to investment opportunities, thereby mobilizing domestic savings into productive investment (Arena, 2008). According to Vayanos and Hammond (2006) a thriving insurance sector is not only evidence of an efficient financial service sector, but it is also a key barometer for measuring a healthy economy.

In line with all these role play by insurance sector, insurance is often defined as the act of pooling funds from many insured entities (known as exposures) in order to pay for relatively uncommon but severely devastating losses which can occur to these entities. The insured entities are therefore protected from risk for a fee, with the fee being dependent upon the frequency and severity of the event occurring (Encarta dictionary, 2010). Thus, it is a commercial enterprise and a major part of the financial services industry.

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It is also believed that insurance market activity may not only contribute to economic growth by itself but also through complementarities with the banking sector and the stock market. In the first case, the joint effect with the banking sector, the development of insurance activity could encourage bank borrowing by reducing cost of capital, which influences economic growth by increasing the demand for financial services (Okoh, 2003). Further to this, property insurance may facilitate bank intermediation activity by for example partially collateralizing credit, which would reduce bank's credit risk exposures thus, promoting higher levels of lending

(Zou and Adams, 2006). At the same time, the development of the banking sector may facilitate the development of the insurance activity through a much more effective payment system allowing an improved financial intermediation of services (Webb, Grace, and Skipper, 2002). Regarding the conjoint effect with the stock market, the development of the insurance activity, in particular life insurance companies, could promote stock market development by investing funds (savings) raised through contractual saving products in stocks and equities (Impavido, et al. 2003; USAID, 2006).

Blum et al (2002), highlighted the link between the insurance and the real sector of the economy, he posited that following economic growth is the rise in demand for insurance and such growth in insurance smoothes short-term economic volatility and thus induces economic growth in the long run, furthermore growth in investment by insurance companies induces economic growth. He further established negative linkage between insurance to economic growth, he opined that growing insurance causes more reckless behaviour (moral hazard behaviour), resulting in a less efficient and more volatile economy.

### **Empirical Framework**

The importance of the insurance sector within total financial intermediation has risen over time and the magnitude and intensity of links between insurance, banking and capital markets has also risen. Thus the likely impact of insurance on the economy is expected to have gone up. This informed the need to conduct an empirical survey of insurance market activity and economic growth in Nigeria in conjunction with other scholars' findings. Beenstock, Dickinson and Khajuria (1988) applied pooled time series and cross-section analysis on 1970- 1981 data, they regress premiums for property liability insurance against gross national product (GNP), income and interest rate. They find that premiums are correlated to interest rate and GNP; marginal propensity to insure (short and long-run) rises with income per capita and is always higher in the long run. Other studies that employed cross-sectional analysis include Outreville (1990), Browne, Chung and Frees (2000), Beck and Webb (2002) and Park, Borde and Choi (2002). But Beenstock (1988) concluded that insurance consumption is not affected by economic cycles or cyclical income variations.

In the study of Beck and Webb (2002) they applied cross-country and time-series analysis for the relation between life insurance penetration, density, and percentage of private savings to GDP, real interest rate, inflation volatility and others as the explanatory variables. Strong evidence was found for GDP, inflation and banking sector development. From the group of additional explanatory variables anticipated inflation, real interest rate, secondary enrolment and the private savings rate were found to be significant. Park, Borde & Choi (2002) concentrated their research work on the linkage between insurance penetration and GNP and some socio-economic factors adopted from Hofstede (1983). Ward and Zurbruegg (2000) employed Granger causality to test between total real insurance premiums and real GDP for nine OECD countries over the 1961 to 1996 period. For two countries (Canada, Japan) the authors found the insurance market leading GDP and for Italy they found a bidirectional relationship. The results for the other countries showed no connection. In line with the above method, Kugler and Ofoghi (2005) added cointegration analysis to the causality test to examine the long-run relationship between insurance market size and economic growth in United Kingdom for the period from 1966 to 2003 for long-term insurance, and for the period from 1971 to 2003 for general insurance (from 1991 to 1997 for marine-aviation transport insurance and reinsurance). In comparison to Ward and Zurbruegg, who used aggregate variable in their estimation (total written premiums) because of possibility of cointegration, this study used disaggregated data for the measure of market size.

From the foregoing, it could be observed that though there are strong theoretical explanations for positive impact of insurance sector to economic growth, the results of empirical researches carried out up to date are mixed. However, the number of empirical studies is relatively small, especially in relation to those on banking contribution to economic growth. Moreover, the insurance-growth nexus in transition countries is examined separately only as a part of one study (Haiss and Sümegi, 2008) and one major cause is availability of data on insurance activity. In order to contribute to filling the gap, the study is focused on examining the insurance-growth nexus using Nigerian data.

### **Models Specification and Methodology**

This study make used of data sourced from secondary sources- Central Bank of Nigeria Statistical Bulletin Volume of 2011 and Nigeria Bureau of Statistics facts Sheet 2011 using annual data from 1980-2011. The Gross Domestic Product (GDP) is used to proxy for national income and contribution of Insurance sector to Gross Domestic Product (cisgdp) was used to capture the level of insurance market activity in Nigeria. Inflation rate (infrate) in Nigeria economy is defined as the percentage change in price level overtime; this is often used as an indicator of the cost of doing business in an economy.

Activities of Insurance sector is expected to be positively related to economic growth, this implies that the higher people demand for insurance premiums, the higher the economic growth in the country. Inflation rate regarded as a control variable is expected to be negatively correlated with growth. High inflation has the tendency of distorting economic activity; thus an increase in the rate of inflation will reduce the level of

economic growth. The empirical evidence denotes that the share of insurance in savings will decrease with a higher savings rate, but will increase with further penetration. A priori evidence show that at long-run relationship between economic growth and the contribution of Insurance sector to Gross Domestic Product (cisgdp) should be positive.

In line with the objectives of this paper, endogenous growth model as modified by Pegano (1993) to examine how Insurance sector has contributed to growth and development of Nigeria economy, simple econometric approach with model are used. In a bid to justified result of the impact of insurance business on economic development of Nigeria, the model used is formulated in form of Y as function of X; where Y is the dependent variables and X the independent variables. Put in mathematical form ( $Y=f(X)$ ), in econometric pattern;

$Y = \beta_0 + \beta_1 X$  Y as a function of X

$$Y = \beta_0 + \beta_1 X_1 + \mu \dots \dots \dots \rightarrow (1)$$

Where:

- Y= Economic growth (Gross Domestic Product; Dependent Variable
- X= Insurance Activities (contribution of insurance sector to GDP, Independent Variable)
- $\beta_0$  = Constant Term
- $\beta_1$  = Coefficient of X
- $\mu$  = Error term

To eliminate specification error, two impulse macroeconomic variables have been included in the model. These variables are inflation Rate and Real Exchange rate thus, equation (1) translates to:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu \dots \dots \dots \rightarrow (2)$$

Where;

- Y= Gross Domestic Product at Market price (gdp)
- $X_1$ = Contribution of Insurance Sector to GDP (cisgdp)
- $X_2$ = Inflation Rate (infrate)
- $X_3$ = Real Exchange Rate (rerate)

However, following Occam's razor, the regression model is kept as simple as possible. This ensures the application of a parsimonious model (Gujarati, 1995). Assuming a linear relationship between our endogenous variable and the explanatory variables, the mathematical equation of the above function becomes:

$$gdp = \beta_0 + \beta_1 cisgdp + \beta_2 infrate + \beta_3 rorate + \mu \dots \dots \dots \rightarrow (3)$$

### Findings and Conclusion

The empirical evidence using simple least square show that all the variables (except Inflation rate) appear non stationary at levels, this was observed that the values (in absolute terms) of the ADF test statistics with the critical values (also in absolute terms) of the test statistics at the 1%, 5% and 10% level of significance. As a result of the non stationarity of the other variables, we differenced them once and both the ADF and PP test were conducted on them. All the variables achieved stationarity at first difference hence on the basis of this, the null hypothesis is rejected and it is safe to conclude that the variables are stationary. This further supported by the value of  $R^2$  ( $R^2=0.86$ ) which showed that there is evidence of relationship between the variables at 95% level of significant.

It is then established that there is link between insurance and economic growth in Nigeria within the period of study. The empirical results show that contribution of insurance sector to economic growth and economic growth are related. It then means that there is long run relationship between insurance development and economic growth. The results also shows that exchange and inflation rate both have influence on (both positive and negative) effect on economic growth in Nigeria.

One of the findings of this study is that there is long run relationship between inflation rate and development of insurance sector in Nigeria. Government must target insurance sector as part of transformation agenda since the sector has large capacity to absolve risk at all sector and also can provide the necessary long-term fund for investment and help in inflation targeting as part of transformation agenda. Government need to as matter of policy improve investment drive towards infrastructure revitalization especially in the area of ICT. It is will be necessary for government to sponsor a appropriate legislation that will ensure stability and growth of the industry especially In area of application ICT into doing business to help the industry to redeem its waning image through prompt settlement of verified claims.

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#### DATA USED

SN	YEAR	RGDP	contribution of insurance sector to GDP	Inflation Rate	Real exchange Rate
1	1992	3286445	665844.0	44.50	19.6609
2	1993	337288.6	927974.0	57.30	22.63309
3	1994	342540.5	191288.9	57.00	21.8861
4	1995	345228.5	160893.2	73.10	21.8861
5	1996	367218.1	248768.1	29.10	21.8861
6	1997	367218.1	337217.6	8.50	21.8861
7	1998	377830.8	428215.2	10.00	21.8861
8	1999	388468.1	487113.4	6.60	92.64
9	2000	393107.2	947690.0	6.90	101.65
10	2001	4233200.0	7.01E+08	18.90	111.9
11	2002	4317830.2	10180000	12.90	120.50
12	2003	4517857.0	10182000	14.00	129.40
13	2004	4950072.0	1.27E+08	15.00	133.5
14	2005	5275760.0	1.38E+08	16.30	131.66
15	2006	5619314.0	18220000	16.90	128.65
16	2007	634251.1	1.94E+08	5.40	125.83
17	2008	672202.6	2.45E+08	6.20	145.6
18	2009	716949.7	245090000.0	6.2	132.2
19	2010	786849.6	2988920000.0	9.8	142.4
20	2011	792932.4	3028780000.0	10.4	161.1

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