COMPARATIVE ANALYSIS OF INSURANCE COMPANIES AND COMMERCIALS BANKS’ INVESTMENT PORTFOLIOS AND ECONOMIC GROWTH IN NIGERIA

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ABSTRACT
This study empirically and comparatively analyses the insurance companies and commercials banks’ investment portfolios and their contributions to economic growth in Nigeria. The study covers the period from 1996 to 2011. The secondary data collected for the study were presented in tables and graphs. A multiple linear regression method was adopted to test the research hypotheses. An ex-post facto research design was adopted in the study. The findings were that there is a positive but no significant relationship between government securities, stock of bond, real estate and mortgage, policy and other loans, cash deposits, bills of exchange of insurance companies and economic growth in Nigeria. This implies that investment portfolios of insurance companies do not contribute significantly to economic growth in Nigeria within the period under study. Also, there is a significant relationship between ordinary shares, preference shares, debentures, subsidiaries, other investments, total investments of commercial banks and economic growth in Nigeria. This implies that investment portfolios of commercial banks do contribute significantly to economic growth in Nigeria within the period under study. Recommendations were that insurance companies in Nigeria should increase their investments on government securities, real estate and mortgage, policy and other loans, as well as cash at hand and deposits for more feasible contribution to the economic growth in Nigeria. Also, commercial banks in Nigeria should also channel their investment efforts on other subsidiaries and debentures for more realistic contribution to the economic growth in Nigeria among others.

KEYWORDS: Investment portfolios, insurance companies, commercial banks, economic growth

INTRODUCTION
Insurance companies are contractual financial institutions that specialize in providing insurance cover or protection to their customers against insurable risk. They mobilize large amounts of financial resources from the premium paid by the policy holders and use part of the funds to invest after payment of claims. Insurance firms as institutional investors invest in government securities, loans and housing or real estate development, among others (Ojo, 2010). For instance, according to Insurance Act of 2003, Section 25(1) “an insurer shall at all times in respect of the insurance transacted by it in Nigeria, invest and hold invested in Nigeria assets equivalent to not
less than the amount of policy holder's funds in such accounts of the insurer”. The various reforms in the finance sector and insurance subsector of Nigeria have expanded the scope of investment of insurance companies. Hence, insurance companies hold assets in government securities, stock, shares and bonds, mortgages and loans, cash and bills receivable and miscellaneous items (Aderibigbe, 2004). The investment objectives of insurance companies are mainly safety, liquidity and growth. These objectives which form the framework of investment portfolio structure of these firms are based on the nature of liabilities of the insurance firms, their operational focus and guidelines of the industry regulators which vary from one country to another and the stages of development in the various countries. In view of the investment practices and of portfolio insurance companies, Ahmed (2012) describes them as creator of wealth and mobilizer of funds for economic growth.

Banks like many other economic organizations are expected to generate profitable incomes through effective and efficient utilization of portfolio of resources (inputs) to ensure continuity and meeting the investment returns expected by the shareholders. Banks core function to a large extent is financial intermediation that is taking money from the surplus units in terms of different kinds of deposit accounts to service the deficit units through loans and advances at different prices. Banks in performing their functions are on line in the wheels of economic and social development in the country. Banking system plays fundamental roles in the growth and development of an economy as deposited money in banks acts as channels through which financial resources are allocated in efficient and effective manner to the deficit units of the economy. Financial intermediation is perhaps the basic and most important functions of the banks, especially in developing countries like Nigeria where available resources are generally inadequate or insufficient to meet the capital and developmental needs of the economy, (Nnanna, 2005). The building block of capital formation is expected to come from efficient operation of the retail banks which energize the deepening of the capital market. The investment portfolio of commercial banks in Nigeria according to CBN (2014) comprises of ordinary shares, preference shares, debentures, subsidiaries, and other investments. Insurance companies and commercial banks are financial institutions that play crucial role in the financial intermediation and economic growth in any economy. In Nigeria, the contributions of investment portfolios of both insurance companies and commercial banks to economic growth are below expectation compared to other developing nations. Several problems are accountable for this development. The economic effect of restructuring the ailing economy posed a serious liquidity problem to the insurance companies and commercial banks. From the economic problem, there are contractions of business due to reduction in investment as a result of poor saving (Victor, 2013). Accord to NDIC (2001), no meaningful investment can be made in an area where there is constant crisis or continual changes of government regulations. The NDIC Quarterly (2004) is of the view that there are several ways through which government exercises control of financial institutions, which constitutes a problem to their investment portfolio. Aldo, in 1986, an urgent call for restructuring the economic was made as the Nigeria economy was witnessing persistent inflationary trend and general recession in the Gross Domestic Product, which according to Nwankwo and Jones (2000) the inflation made the bank based scheme to be administered by the Central Bank of Nigeria (CBN) as its possess the power to manage the country’s foreign exchange resource in keeping with the needs of the country’s economy. In fact in the insurance business, there was a great deal of buying and selling and this was affected by
the inflationary trends that hamper the exchange of money both locally and internationally to pay insurance and re-insurance premium and investment (Victor, 2013). Furthermore, lack of investible assets, inability to identify profitable investment opportunities, legal restrictions, volatility of environment and poor project evaluation techniques hamper the diversification of investment portfolios of both the insurance companies and commercial banks in Nigeria.

The main objective of this study is to carry out a comparative analysis of insurance companies and commercial banks’ investment portfolios and their contributions to economic growth in Nigeria. Other specific objectives of the study are to determine the relationship existing between investment portfolio of insurance companies and economic growth in Nigeria; to determine the relationship existing between investment portfolio of commercial banks and economic growth in Nigeria. To achieve the above objectives, the following research hypotheses are formulated in null form;

$H_01$: There is no significant relationship between government securities, stocks and bonds, real estate and mortgage, policy and other loans, cash at hand and deposits, bills of exchange of insurance companies and economic growth in Nigeria.

$H_02$: There is no significant relationship between ordinary shares, preference shares, debentures, subsidiaries, other investments of commercial banks and economic growth in Nigeria.

This paper is organized into five headings; introduction, literature review, research methodology, data presentation, analysis, empirical results and discussion of findings followed by conclusion and recommendation.

**LITERATURE REVIEW**

(a) Conceptual framework

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 specialise in the management of risk. These experts are the insurance companies. Holyoake and Weipers (2005) opine that insurance companies act as a stimulus for the activity of businesses that are already in existence. This is done through the release of funds for investment in the productive side of the business, which would otherwise have to be held in easily accessible reserves to cover any future loss. Investment portfolio must be managed, be it passive or active portfolio. Since the aim of portfolio management is the determination of optimal percentage of investible fund to each security that will sustain investor’s goal for investment. In order to avoid holding a security with low yield, there must be periodic assessment using portfolio selection, revision and performance measurement, so as to evaluate the economic and interest rate impact on them at the short and long run perspectives. There are some aspect of portfolio management such as security analysis, portfolio analysis and selection, fundamental and technical analysis and lastly, industry analysis, which form part of security analysis (Osipitan, 2009). Portfolio analysis deals with the determination of portfolio future return and risk possibility. But portfolio selections focus on selecting the right asset for investment.

Investor’s objective is to maximize their wealth and minimize their loss, which calls for diversification. But to diversify investment, asset must be analyzed through internal, external and policy analysis. Under internal analysis, the firm’s dynamics is analyzed to verify its possibility of generating future cash flow. External analysis compares other firm’s activities in relation to the firm’s profit made and dividend shares. But policy analysis looks at the likely effect of
government policy on the firms operation. The positive correlation of this analysis guides the manager/investor on the choice of investment, while negative implies refraining to invest.

According to Section 25 (1-5) of Insurance Act of 2003, “An insurer shall at all times in respect of the insurance transacted by it in Nigeria, invest and hold invested in Nigeria assets equivalent to not less than the amount of policy holder's funds in such accounts of the insurer. Subject to the other provisions of this section, the policy-holders funds shall not be invested in property and securities except: (a) shares of limited liability companies; (b) shares in other securities of a co-operative society registered under a law relating to co-operative societies; (c) loans to building societies approved by the Commission; (d) loans on real property, machinery and plant in Nigeria; (e) loans on life policies within their surrender values; (f) cash deposit in or bills of exchange accepted by licensed banks; and (g) such investments as may be prescribed by the Commission. No insurer shall- (a) in respect of its general insurance business, invest more than 35 per centum of its assets as defined in subsection (1) of this section in real property; or (b) in contract of its life insurance business, invest more than 35 per centum of its assets as defined in subsection (1) of this section in real property. An insurer which contravenes the provisions of this section commits an offence and is liable on conviction to a fine of N50,000. In this section, references to real property include references to an estate in land, a lease or a right of occupancy under the Land Use Act”.

There are three main sources of investment funds for firms:
(1) internal funding using accumulated profits, (2) borrowing either from banks or through the issue of financial assets such as (long-term) bonds or (short-term) commercial paper, and (3) issuing new shares of stock—new “equity.”

Each of these funding methods imposes explicit and/or implicit costs on the firm. If the firm borrows in order to finance its investment, it pays an explicit interest cost. If it uses internal funds for investment, it is forgoing other uses of those funds. Had the firm not used the internal funds for new capital, it could have earned interest on the funds by lending them or purchasing financial assets. Thus, the implicit cost of each dollar of internally funded investment is (at least) the interest on forgone lending. In a “perfect capital market,” where all borrowers and lenders pay and receive a uniform interest rate, the explicit interest cost of loan-financed investment equals the implicit forgone-interest cost of self-financed investment, so the cost is the same whether the firm finances through borrowing or internally. Issuing new shares of stock creates costs for those who own existing shares. Since the new shares represent claims on the firm’s future profits, they dilute the claims of existing shareholders in direct proportion to the amount of new stock issued.

Insurers are among the top three institutional investors worldwide, along with pension funds and investment funds. In most countries, insurers invest the largest proportion of their portfolio in government bonds and fixed-income private bonds; however, their investment strategies and risk management practices permit them to invest in shares, real estate, other instruments such as loans, as well as more complex financial instruments. The portfolio mix varies across countries depending mainly on the nature of insurers’ liabilities, insurers’ risk appetite, and the risk profile of insurers within the industry. In the life industry, the share of bonds in insurers’ investment
portfolios is typically higher than the level found in the non-life and composite insurance industries, to a certain extent due to the fact that investment in long-term bonds allows for a better matching of assets with their long-term liabilities (OECD, 2011).

Economic growth has been a major objective of successive governments in Nigeria. In performing the financial intermediation role, it has been argued that by virtue of this function commercial banks generate economic growth by providing needed resources for real investment (Shaw, 1973; Mckinnon, 1973). Economic growth is one of the important factors that improve living standards in developing countries. It is an indispensable requirement for economic development among other factors. The role of finance in terms of money deposit bank was well acknowledged by researchers. The functions of these banks as financial intermediation involves channeling funds from the surplus unit to the deficit unit of the economy, thus transforming deposits into loans or credits. The role of deposit money banks in economic development has been recognized as credits are obtained by the various economic agents to enable them meet investment operating expenses. For instance, business firms obtain credit to buy machinery and equipment, farmers obtain credit to purchase machines such as tractors, seeds, fertilizers, and erect various kinds of farm buildings. Government bodies obtain credits to meet various kinds of recurrent and capital expenditures. Individuals and families also take credit to buy and pay for goods and services (Adeniyi, 2006).

According to Ademu (2006), the provision of credit with sufficient consideration for the sector’s volume and price system is a way to generate self employment and investment opportunities. This is because credit helps to create and maintain a reasonable business size as it is used to establish and/or expand the business to take advantage of economy of scale. It can also be used to improve informal activity and increase its efficiency. While highlighting the role of credit, Ademu (2006), further explained that credit can be used to prevent economic activity from total collapse in the event of natural disasters. The commercial banks help to make these credit facilities available by mobilizing surplus funds from savers who have no immediate needs for such funds and thus channel such funds in form of credit to investors who have brilliant ideas on how to create additional wealth in the economy but lack the necessary capital to execute the ideas. According to Adekanye (1986), in making credit available, money deposit banks are rendering a great social service because through their activities, production is increased, capital investment are expanded and a higher standard of living is realized.

(b) Theoretical framework

(i) Financial Liberalization Theory

The theory that guides this study is the Financial Liberalization Theory. Financial liberalization theory has its origins in the work of McKinnon [1973] and Shaw [1973]. It was Patrick [1966], however, who published the seminal work on the relationship between financial development and economic growth. He hypothesized two possible relationships, a “demand-following” approach, in which financial development arises as the economy develops, and a “supply-leading” phenomenon, in which the widespread expansion of financial institutions leads to economic growth (Arestis, Nissanke and Stein, 2005). Led by seminal papers of McKinnon [1973] and Shaw [1973], a significant number of studies have pointed out that financial
liberalization can exert a positive effect on growth rate as interest rate levels rise towards their competitive market equilibrium, while resources are efficiently allocated. Arestis (2005) states that, the relationship between financial development and economic growth has received a great deal of attention throughout the modern history of economics. This theory is relevant to this study because insurance firms and commercial banks are financial institutions in Nigeria, which their expansion and development could contribute to economic growth.

(ii) Finance-Growth Nexus Theory:
This study is also based on the finance-growth nexus theory by (Schumpeter,1911). Borrowing from Schumpeter, financial services are important for economic growth as long as they improve productivity by promoting technological innovation, investment and helping entrepreneurs with the best chances of success in the innovation process. He argued that mobilization of productive savings, efficient resources allocation, re-investment of mobilized financial resources into the economy would facilitate economic growth. He further stressed that these effects could create a favorable macro-economic framework for strong economic growth. As a matter of fact, theoretical endogenous growth models which integrate financial development support this thesis (King and Levine, 1993; Beck, Levine and Loayza, 2000; Levine, Loayza and Beck, 2000). This theory is related to this study because for economic growth to subsist insurance companies and commercial banks must mobilize their idle accumulated funds and re-invest such funds into the deficit economic unit to boost money supply and capital formation in the economy.

(iii) Market Based Asset Allocation Theory
This study is further based on market based asset allocation theory propounded by Markowitz (1952, 1959) on portfolio selection, which resulted in a revolution in the theory of finance and laid the foundation for modern capital market theory. Modern portfolio theory explains the selection and construction of asset portfolios based on the measured risk, risk preferences of individuals and the expected return on the investments. An implication of the normative logic of the Markowitz model is that fund managers design their portfolios based upon expected risk and return and the covariance of return between each pair of assets. Portfolios are selected from those lying on an efficient frontier depicting the trade off between risk and return. The frontier is efficient because the choices result in the highest expected return for the given level of risk. This theory is related to this study because diversification of investment portfolio involves risk-taking. The work of Steinbach (2001) deduces that portfolio selection involves the assumptions of the investor about the future, represented by the probability distributions of the asset returns. These probability distributions are based upon the assessment of financial analyst or estimated statistically from historical data. The measurement of the expected portfolio return is based on the mean of the observed asset returns. Risks are assessed as the variance of the portfolio, which is derived from the covariance of the asset returns (Santos and Haines, 2004).

(c) Empirical review
Victor (2013) examined the impact of insurance on economic growth in Nigeria. The findings of Victor (2013) revealed that insurance helps to reduce risks, in addition to other functions provide means of accumulating savings. Such accumulated savings provide insurance companies with a pool of funds for investments that aid development. Also, Ubom (2014) examined 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. Data were analyzed using descriptive and inferential tools. The findings were 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 dominated the investment portfolio of these financial institutions with heavy concentration in the assets of quoted companies. Hence, small and medium scale enterprises were not funded. As such, 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.

Earlier study on the industry also confirmed that investment respond to market conditions given the neo classical investment theory (Akinifesi, 1981; Jorgenson, 1967). Since investment takes time, the delay which may be attributed to commitment of expenditure, lack of information or delay in making timely investment decisions. As a result of this, the returns on investment are what motivate an investor to invest in a particular asset. Which is best explained through interest on such investment. Interest is the payment for the use of borrowed funds or the change in the value of an asset over a specified period of time. Interest rate is the percentage rate of change in the value of an asset at any point in time or over a period of time (Todaro and Bell, 1969). In reality, there is more than one interest rate due to risk, nature of security, services in addition to the loan (investment) itself, lack of free competition among lenders or borrowers, length of time the loan has to run and others causes. The legislative constraints on the choice of investment of insurers have social, political, and economic advantages, yet these restrictions operate to the disadvantage of the insurers, especially when such outlets are not (highly) profitable (Durojaiye, 1988; Irukwu, 1981; Akintola-Bello, 1986).

According to Randle and Ahuja, (2001) life assurance companies’ investment favoured long term rather than short term based on their liabilities. The nature of business of an insurance company determines the profiles of its liability and the direction of its investment. Life Assurance companies differ from non–life insurance companies in their investment objectives. The life assurance companies has more fund available for long – term investment, while non life insurance companies invested in short – term investment due to its liability structure (Arena, 2008).

The Investment behavior of Insurance Companies in Nigeria was the mainstay of the study by Akintola-Bello (1986) which observed the great variation in the asset holdings of life and non-life insurance companies, owing to the need to match assets with the maturity structure of their liabilities. While non-life companies prize liquidity very highly, life insurance companies did not. For life companies emphasized government securities, mortgages and real estate, common stocks and corporate bonds, all of which are long-term high income-yielding assets in their portfolio. Although portfolios differ widely in maturity structure and in riskiness between life and non-life companies, both hold a wide variety of financial assets.

Omoruyi (1984) made an econometric analysis of the determinants of investments by insurance companies in Nigeria, where he developed models of investment on each asset in the portfolio.
Accordingly, each asset is made a function of insurance fund (or total assets) deflated with GDP, average rate of interest as a proxy for returns on investments, premiums/claims ratio and a dummy for legislation years. Use was also made of time-series annual data for 13 years (1969 - 1981) in acquisition of 4 major assets; namely government securities; stocks, shares and bonds; mortgage and loans; as well as cash and bills receivables. The result showed a good fit for life insurance companies using the log linear specification while the non-life and mixed insurance companies had their data showing good fit with the linear form. All the hypothesized variables were found to be statistically significant, though some at 10% significance level.

Haiss & Siimegi (2008) investigated both the impact of insurance investment and premiums on GDP growth in Europe, applying cross-country panel data analysis from 1992 to 2005 for 29 European countries. They found a positive impact of life insurance on GDP growth in the EU-15 countries, Switzerland, Norway and Iceland. For the New EU Member States from Central and Eastern Europe, they found a larger impact for liability insurance. Furthermore their findings emphasized the impact of the real interest rate and the level of economic development on the insurance-growth nexus. They argued that the insurance sector needs to be paid more attention in financial sector analysis and macroeconomic policy (Haiss & Siimegi (2008)).

RESEARCH METHODOLOGY
Research methodology is the plan, strategy and structure of investigation, concerned with how to obtain answers to question in consolidation of the nature and the purpose which it intended to achieve as well as the anticipated result, Kerlinger in Victor (2013). This research is a quantitative study aimed at investigating the impact of investment portfolios of insurance companies and commercial banks on economic growth in Nigeria. The study is purely quantitative and relies on secondary data. The choice of the data depends largely on the suitability and reliability in the course of this research work. Research design is a framework for controlling the collection of data. It ensures that the required data are accurately collected. This study is fundamentally designed to find out if investment portfolios of insurance companies and commercial banks’ impacts on the growth of the Nigerian economy. The structural framework of this study is based on ex-post facto research design. According to Kerlinger (1973) in Ndiyo (2005), an ex post facto research is a systematic empirical inquiry in which the scientist has no direct control of the independent variables, inferences about relations among variables are therefore made without a current interaction between the independent and dependent variables hence the cause or the independent variable involved is not manipulated.

Generally, secondary data were used in this work. These data were time series and cross section. The data covered the period from 1996 to 2011. The time series is a set of observations taken at specific time, usually at equal intervals. According to Udofia (2005), time series is the arrangement of statistical data collected with respect to the time of occurrence. The data collated for this study will be presented in tables of time series. Simple percentages and graphs are used in analyzing the data. In testing the research hypotheses, the multiple linear regression method will be used. The multiple regression analysis method is an analysis of association that simultaneously investigates the effects of two or more independent variables on a single interval scaled or ration-scaled dependent variable. These tools made it possible to carry out empirical
analysis describing the trend movements of variables and their implications on economic growth in Nigeria.

We adopt the multiple linear regression technique to specify the relationship between the variables in the hypotheses of the study. The multiple linear regression models are specified below:

\[ Y = a_0 + a_1X_1 + a_2X_2 + \ldots + a_nX_n + U_t \]

In the model, \( a_1, a_2, \ldots, a_n \) are the parameters or the independent variables’ coefficients and the \( u_t \) is the stochastic error term or random variable. The model above indicates that ‘\( y \)’ is a linear function of \( X_1, X_2, \ldots, X_n \). Hence, \( a_0 \) is regression constant or intercept, while \( X_1, X_2, \ldots, X_n \) are independent variables.

The functional equation for testing of hypothesis one is stated below:

\[ GDP = f(GSEC, STBO, REMO, POLS, CHDS, BSEX). \]

The equation is linearized in the hypothesis as:

\[ GDP = a_0 + a_1GSEC + a_2STBO + a_3REMO + a_4POLS + a_5CHDS + a_6BSEX + U_1 \]

Where;

- GDP = Gross Domestic Product.
- GSEC = Government Securities
- STBO = Stocks and Bonds
- REMO = Real Estate and Mortgage
- POLS = Policy and Other Loans
- CHDS = Cash at Hand and Deposits
- BSEX = Bills of Exchange

\( U_1 \) is the stochastic error term.

The functional equation for testing of hypothesis two is stated below:

\[ GDP = f(ORSH, PRSH, DEBS, SUBS, OIVS). \]

The equation is linearized in the hypothesis as:

\[ GDP = \beta_0 + \beta_1ORSH + \beta_2PRSH + \beta_3DEBS + \beta_4SUBS + \beta_5OIVS + U_1 \]

Where;

- GDP = Gross Domestic Product.
- ORSH = Ordinary Shares
- PRSH = Preference Shares
- DEBS = Debentures
- SUBS = Subsidiaries
- OIVS = Other Investments

\( U_1 \) is the stochastic error term.

\( a_0 \) and \( \beta_0 \) are regression constants.

Appriori, the following are expected:

- \( a_1 \leq 0; a_2 < 0, a_3 < 0; a_4 < 0; a_5 < 0; a_6 < 0; a_7 < 0 \) in the hypothesis one.
- \( \beta_1 \leq 0; \beta_2 < 0; \beta_3 < 0; \beta_4 < 0; \beta_5 < 0; \beta_6 < 0 \) in the hypothesis two.

Considering estimation techniques, we examine the relationship between investment portfolios of insurance companies’ contribution to GDP growth as well as the relationship between investment portfolios of commercial banks’ contribution to GDP growth using multiple linear regression technique. To test the significance of the individual explanatory variables and
coefficients to determine whether there is a linear relationship between the independent and dependent variables, we use the t-test to perform the test. If the calculated t-value ($t_c$) is greater than the critical value of t-alpha ($t_\alpha$) at a scaled 5 percent level of significance, the independent variable is considered to have a linear and positive relationship with the dependent variable, and hence the null hypothesis is rejected.

The adjusted R-squared ($R^2$), known as the coefficient of determination adjusted for the degrees of freedom, $n-k-1$, is used to ascertain the proportion of variations in economic and growth that are explained by the regression model. Testing for the overall utility of the model, we apply the F-statistic shown in the ANOVA table reported by the Statistical Package for Social Science (SPSS). This involves the comparison of the calculated F-statistic ($F_c$) with the $F_\alpha$ at the $n-k-1$. If the reported F-statistic is greater than $F_\alpha$, $n-k-1$, it is therefore confirmed that the model has explanatory power, and that the overall model is significant. That is if $F_c>F_\alpha$, $n-k-1$. It is assumed that the model is significant. We will also use the Durbin-Watson statistic to test the presence or absence of auto–correlation. If the statistic has within the inclusion region, it is assumed that the model is free from both positive and negative serial correlation.

DATA PRESENTATION, ANALYSIS, EMPIRICAL RESULTS AND DISCUSSIONS

(a) Data Presentation

The secondary data collated for this study is presented below;

Table 1: Investment Portfolio of Insurance Companies in Nigeria, 1996-2011 (₦ Million) comprising of Government Securities (GSEC), Stocks and Bonds (STBO), Real Estate and Mortgage (REMO), Policy and Other Loans (POLS), Cash at Hand and Deposits (CHDS), Bills of Exchange (BSEX), Total investment of the insurance companies (TOIN) and Gross Domestic Product (GDP) at current basic prices

<table>
<thead>
<tr>
<th>Year</th>
<th>GSEC</th>
<th>STBO</th>
<th>REMO</th>
<th>POLS</th>
<th>CHDS</th>
<th>BSEX</th>
<th>TOIN</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>1,546.2</td>
<td>4,047.8</td>
<td>2,523.2</td>
<td>795.9</td>
<td>3,347.1</td>
<td>119.3</td>
<td>12,379.5</td>
<td>4,032.30</td>
</tr>
<tr>
<td>1997</td>
<td>2,012.0</td>
<td>4,095.4</td>
<td>2,683.5</td>
<td>842.1</td>
<td>3,815.9</td>
<td>164.2</td>
<td>13,613.1</td>
<td>4,189.25</td>
</tr>
<tr>
<td>1998</td>
<td>4,145.9</td>
<td>3,633.2</td>
<td>212.0</td>
<td>2,301.2</td>
<td>3,371.5</td>
<td>1993.2</td>
<td>15,656.9</td>
<td>3,989.45</td>
</tr>
<tr>
<td>1999</td>
<td>2,987.2</td>
<td>4,174.0</td>
<td>332.7</td>
<td>4,124.5</td>
<td>5,780.9</td>
<td>21,583.5</td>
<td>4,679.21</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>3,559.0</td>
<td>4,992.9</td>
<td>282.3</td>
<td>5,212.1</td>
<td>7,302.0</td>
<td>25,192.6</td>
<td>6,713.57</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>3,842.7</td>
<td>6,786.3</td>
<td>359.3</td>
<td>6,706.4</td>
<td>10,178.0</td>
<td>32,157.3</td>
<td>6,895.20</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>3,752.1</td>
<td>8,350.9</td>
<td>960.3</td>
<td>7,901.0</td>
<td>4,095.4</td>
<td>36,940.9</td>
<td>7,795.76</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>4,489.2</td>
<td>11,490.3</td>
<td>14,272.8</td>
<td>3,767.0</td>
<td>13,901.2</td>
<td>54,642.8</td>
<td>9,913.52</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>4,169.1</td>
<td>20,071.9</td>
<td>21,832.2</td>
<td>6,769.1</td>
<td>16,287.1</td>
<td>74,590.8</td>
<td>11,411.07</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>4,178.1</td>
<td>61,800.8</td>
<td>33,788.2</td>
<td>5,590.7</td>
<td>10,185.4</td>
<td>121,844.2</td>
<td>14,610.88</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>4,858.1</td>
<td>121,813.1</td>
<td>45,186.8</td>
<td>7,884.7</td>
<td>30,314.2</td>
<td>216,359.9</td>
<td>18,564.59</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>20,914.8</td>
<td>222,278.9</td>
<td>45,331.9</td>
<td>12,945.8</td>
<td>22,508.7</td>
<td>329,247.9</td>
<td>20,657.32</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>21,374.9</td>
<td>227,166.1</td>
<td>46,329.2</td>
<td>13,230.6</td>
<td>13,901.2</td>
<td>336,491.4</td>
<td>24,296.33</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>21,845.2</td>
<td>232,166.8</td>
<td>47,348.5</td>
<td>13,819.2</td>
<td>14,123.2</td>
<td>343,894.2</td>
<td>24,974.24</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>22,325.8</td>
<td>237,274.4</td>
<td>48,390.1</td>
<td>14,319.2</td>
<td>14,027.2</td>
<td>351,459.9</td>
<td>54,612.26</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>22,816.9</td>
<td>242,494.5</td>
<td>49,454.7</td>
<td>14,123.2</td>
<td>14,555.8</td>
<td>359,192.0</td>
<td>62,980.40</td>
<td></td>
</tr>
</tbody>
</table>

Sources: CBN Statistical Bulletin, 2014
Table 2: Investment Portfolio of Commercial Banks in Nigeria, 1996-2011 (₦’ Billion) comprising of Ordinary Shares (ORSH), Preference Shares (PRSH), Debentures (DEBS), Subsidiaries (SUBS), Other Investments (OIVS), Total Investments of commercial banks in Nigeria (TOIN) and Gross Domestic Product (GDP) at current basic prices

<table>
<thead>
<tr>
<th>Year</th>
<th>ORSH</th>
<th>PRSH</th>
<th>DEBS</th>
<th>SUBS</th>
<th>OIVS</th>
<th>TOIN</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>0.4</td>
<td>0.1</td>
<td>0.2</td>
<td>0.4</td>
<td>1.3</td>
<td>2.5</td>
<td>4,032.30</td>
</tr>
<tr>
<td>1997</td>
<td>0.5</td>
<td>0.1</td>
<td>0.9</td>
<td>0.4</td>
<td>1.5</td>
<td>3.5</td>
<td>4,189.25</td>
</tr>
<tr>
<td>1998</td>
<td>1.0</td>
<td>0.1</td>
<td>0.9</td>
<td>1.7</td>
<td>0.6</td>
<td>4.2</td>
<td>3,989.45</td>
</tr>
<tr>
<td>1999</td>
<td>0.8</td>
<td>2.0</td>
<td>0.1</td>
<td>1.4</td>
<td>1.0</td>
<td>5.2</td>
<td>4,679.21</td>
</tr>
<tr>
<td>2000</td>
<td>2.7</td>
<td>0.0</td>
<td>1.1</td>
<td>1.6</td>
<td>2.5</td>
<td>7.9</td>
<td>6,713.57</td>
</tr>
<tr>
<td>2001</td>
<td>6.5</td>
<td>0.1</td>
<td>1.5</td>
<td>2.2</td>
<td>5.7</td>
<td>15.5</td>
<td>6,895.20</td>
</tr>
<tr>
<td>2002</td>
<td>10.9</td>
<td>0.0</td>
<td>5.8</td>
<td>3.8</td>
<td>14.9</td>
<td>35.4</td>
<td>7,795.76</td>
</tr>
<tr>
<td>2003</td>
<td>24.6</td>
<td>0.5</td>
<td>15.1</td>
<td>8.8</td>
<td>14.0</td>
<td>62.9</td>
<td>9,913.52</td>
</tr>
<tr>
<td>2004</td>
<td>32.0</td>
<td>2.3</td>
<td>13.2</td>
<td>9.6</td>
<td>15.7</td>
<td>72.8</td>
<td>11,411.07</td>
</tr>
<tr>
<td>2005</td>
<td>31.8</td>
<td>10.9</td>
<td>17.0</td>
<td>13.6</td>
<td>15.1</td>
<td>88.4</td>
<td>14,610.88</td>
</tr>
<tr>
<td>2006</td>
<td>75.8</td>
<td>0.0</td>
<td>2.7</td>
<td>19.0</td>
<td>44.1</td>
<td>141.6</td>
<td>18,564.59</td>
</tr>
<tr>
<td>2007</td>
<td>177.4</td>
<td>0.0</td>
<td>0.6</td>
<td>38.9</td>
<td>75.5</td>
<td>292.3</td>
<td>20,657.32</td>
</tr>
<tr>
<td>2008</td>
<td>317.5</td>
<td>0.0</td>
<td>1.3</td>
<td>84.5</td>
<td>77.5</td>
<td>480.7</td>
<td>24,296.33</td>
</tr>
<tr>
<td>2009</td>
<td>612.0</td>
<td>0.0</td>
<td>27.6</td>
<td>156.0</td>
<td>94.8</td>
<td>890.3</td>
<td>24,794.24</td>
</tr>
<tr>
<td>2010</td>
<td>486.0</td>
<td>0.0</td>
<td>56.6</td>
<td>156.3</td>
<td>1,170.3</td>
<td>1,869.1</td>
<td>54,612.26</td>
</tr>
<tr>
<td>2011</td>
<td>355.8</td>
<td>0.0</td>
<td>74.8</td>
<td>226.0</td>
<td>1,918.0</td>
<td>2,574.7</td>
<td>62,980.40</td>
</tr>
</tbody>
</table>


(b) Data Analysis

As observed in table 1, GSEC stood at ₦1,546.2 million in 1996 and rose to ₦22,816.9 million in 2011 representing 1,376% increase and average annual growth rate of 86% increase within the period under study. Also, STBO stood at ₦4,047.8 million in 1996 and rose to ₦242,494.5 million in 2011 representing 5,891% increase with average annual growth rate of 368% increase. Further analysis revealed that REMO rose from ₦2,523.2 million in 1996 to ₦49,454.7 million in 2011, which represents 1,860% increase with average annual growth rate of 116%. POLS stood at ₦795.9 million in 1996 and rose to ₦14,123.2 million in 2011 representing 1,674% increase with 105% average annual growth rate. CHDS stood at ₦3,347.1 million in 1996 and rose to ₦24,555.8 million in 2011 representing 634% increase with average annual growth rate of 40%. BSEX stood at ₦119.3 million in 1996 and rose to ₦5,746.9 million in 2011 which represents 4,717% increase with 295% average annual growth rate within the period under study. Total investment of insurance companies (TOIN) rose from ₦12,379.5 million in 1996 to ₦359,192.0 million in 2011 representing 2,802% increase with 175% average annual growth rate within the period under study. Finally, Gross Domestic Product (GDP) at current basic prices stood at ₦4,032.30 billion in 1996 and rose to ₦62,980.40 billion in 2011 representing 1,462% increase with average annual growth rate of 91% increase within the period under study.

Furthermore, in table 2, ORSH stood at ₦0.4 billion in 1996 and rose to ₦355.8 billion in 2011 representing 88,850% increase with average annual growth rate of 5,553%. Also, PRSH declined from ₦0.1 billion in 1996 to zero stage in 2011 as reported by CBN (2014). DEBS rose from ₦0.2 billion in 1996 to ₦74.8 billion in 2011 representing 37,300% increase. SUBS stood at ₦
0.4 billion in 1996 and rose to ₦226.0 billion in 2011 representing 56,400% increase. OIVS rose from ₦1.3 billion in 1996 to ₦1,918.0 in 2011 representing 147,438% increase. Finally, total investment of commercial banks (TOIN) stood at ₦2.5 billion in 1996 and rose to ₦2,574.7 in 2011 representing 102,888% increase. Comparatively, while there was 2,802% increase in the total investment of insurance companies, it was observed that total investment of commercial banks in Nigeria increased at 102,888%.

**Figure 1:** Researchers’ graphical representation of Investment Portfolio of Insurance Companies in Nigeria from 1996-2011 (₦ Million) comprising of Government Securities (GSEC), Stocks and Bonds (STBO), Real Estate and Mortgage (REMO), Policy and Other Loans (POLLS), Cash at Hand and Deposits (CHDS), Bills of Exchange (BSEX), Total investment of the insurance companies (TOIN) and Gross Domestic Product (GDP) at current basic prices

**Figure 2:** Researchers’ graphical representation of Investment Portfolio of Commercial Banks in Nigeria from 1996-2011 (₦ Billion) comprising of Ordinary Shares (ORSH), Preference Shares (PRSH), Debentures (DEBS), Subsidiaries (SUBS), Other Investments (OIVS), Total Investments of commercial banks in Nigeria (TOIN) and Gross Domestic Product (GDP) at current basic prices
Figure 3: Researchers’ graphical representation Investment Portfolios of insurance companies and Commercial Banks in Nigeria and Gross Domestic Product (GDP) at current basic prices from 1996-2011

(c) Empirical Results

Hypothesis one

$H_0$: There is no significant relationship between government securities, stock of bond, real estate and mortgage, policy and other loans, cash at hand and deposits, bills of exchange of insurance companies and economic growth in Nigeria.

The empirical results of hypothesis one are presented below;

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.922$^a$</td>
<td>.850</td>
<td>.750</td>
<td>8.8354811E3</td>
<td>2.091</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), BSEX, REMO, GSEC, POLS, CHDS, STBO  
b. Dependent Variable: GDP

ANOVA$^b$

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>6</td>
<td>6.642E8</td>
<td>8.508</td>
<td>.003$^a$</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>9</td>
<td>7.807E7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
<td>7.026E8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), BSEX, REMO, GSEC, POLS, CHDS, STBO  
b. Dependent Variable: GDP
Arabian Journal of Business and Management Review (Nigerian Chapter)
Vol. 4, No. 2, 2017

Coefficientsa

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>8251.470</td>
<td>6547.540</td>
<td>1.260</td>
</tr>
<tr>
<td></td>
<td>GSEC</td>
<td>-1.502</td>
<td>.503</td>
<td>- .691</td>
</tr>
<tr>
<td></td>
<td>STBO</td>
<td>.356</td>
<td>.186</td>
<td>2.109</td>
</tr>
<tr>
<td></td>
<td>REMO</td>
<td>- .173</td>
<td>.504</td>
<td>- .212</td>
</tr>
<tr>
<td></td>
<td>POLS</td>
<td>- .691</td>
<td>2.601</td>
<td>- .185</td>
</tr>
<tr>
<td></td>
<td>CHDS</td>
<td>- .590</td>
<td>.753</td>
<td>- .341</td>
</tr>
<tr>
<td></td>
<td>BSEX</td>
<td>.908</td>
<td>1.221</td>
<td>.225</td>
</tr>
</tbody>
</table>

a. Dependent Variable: GDP

Sources: Researchers’ computation

The result is summarized as below:

GDP = 8251.47 -1.502GSEC +0.356STBO - 0.173REMO – 0.691POLS – 0.590CHDS + 0.908BSEX

$t$-statistic = {1.260} {-2.986} {1.910} {-0.342} {-0.266} {0.783}

{0.744}

Std. Error = {6547.54} {0.503} {0.186} {0.504} {2.601} {0.753}

{1.221}

$R^2$ = 0.850 Adjusted R-squared = 0.750

F-statistic = 8.508 Std. Error of the Estimate = 8.8354811E3 Durbin-Watson = 2.091

Hypothesis Two

$H_0$: There is no significant relationship between ordinary shares, preference shares, debentures, subsidiaries, other investments of commercial banks and economic growth in Nigeria.

The empirical results of hypothesis two are presented below;

Model Summaryb

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.983a</td>
<td>.966</td>
<td>.950</td>
<td>3.9685234E3</td>
<td>.896</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), OIVS, PRSH, ORSH, DEBS, SUBS

b. Dependent Variable: GDP
ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>4.530E9</td>
<td>5</td>
<td>9.060E8</td>
<td>57.530</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1.575E8</td>
<td>10</td>
<td>1.575E7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.688E9</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), OIVS, PRSH, ORSH, DEBS, SUBS
b. Dependent Variable: GDP

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>7618.724</td>
<td>1344.987</td>
<td>5.665</td>
</tr>
<tr>
<td>ORSH</td>
<td>70.891</td>
<td>24.224</td>
<td>.797</td>
<td>2.927</td>
</tr>
<tr>
<td>PRSH</td>
<td>844.917</td>
<td>466.514</td>
<td>.131</td>
<td>1.811</td>
</tr>
<tr>
<td>DEBS</td>
<td>-196.580</td>
<td>182.225</td>
<td>-2.45</td>
<td>-1.079</td>
</tr>
<tr>
<td>SUBS</td>
<td>-138.079</td>
<td>101.201</td>
<td>-5.58</td>
<td>-1.364</td>
</tr>
<tr>
<td>OIVS</td>
<td>39.495</td>
<td>9.572</td>
<td>1.200</td>
<td>4.126</td>
</tr>
</tbody>
</table>

a. Dependent Variable: GDP

Sources: Researchers’ computation

The result is summarized as below:

\[ \text{GDP} = 7618.724 + 70.891 \text{ORSH} + 844.917 \text{PRSH} - 196.58 \text{DEBS} - 138.079 \text{SUBS} + 39.495 \text{OIVS} \]

\[ t\text{-statistic} = \{5.665\} \{2.927\} \{1.811\} \{-1.079\} \{-1.364\} \{4.126\} \]
\[ \text{Std. Error} = \{1344.987\} \{24.224\} \{466.514\} \{182.225\} \{101.201\} \{9.572\} \]
\[ R^2 = 0.966 \]
\[ \text{Adjusted R-squared} = 0.950 \]
\[ F\text{-statistic} = 57.529 \]
\[ \text{Std. Error of the Estimate} = 3.9685234E3 \]
\[ \text{Durbin-Watson} = 0.896 \]

(d) Discussion of findings

The test of the null hypothesis against the alternate hypothesis is to reject \( H_0 \) if \( t_c > t_{\alpha/2}, n-k-1 \) where \( t_{\alpha/2}, n-k-1 \) is obtained from the t-distribution table. In the first hypothesis, therefore, at a selected 0.05 percent level of significance with \( n=16, k = 6, \) such that \( t 0.05/2, 16-1-6 = t 0.025, 9, \) we have critical value of 2.26 and a t-statistic \( (t_c) \) of 1.260 and \( t_{\alpha/2}, 9 = 2.26, \) it therefore means that \( t_c = 1.260 < t_{\alpha} = 2.26. \) Therefore the null hypothesis is accepted that there is no significant but a positive relationship between government securities, stocks and bonds, real estate and mortgage, policy and other loans, cash at hand and deposits, bills of exchange of insurance companies and economic growth in Nigeria from 1996 to 2011. A regression coefficient of 8251.47 implies that there is a positive relationship between government securities, stock of bond, real estate and mortgage, policy and other loans, cash deposits, bills of exchange...
of insurance companies and economic growth in Nigeria from 1996 to 2011. The coefficient of determination ($R^2$) was 0.850 which implies that about 85% variations in GDP were caused by GSEC, STBO, REMO, POLS, CHDS, and BSEX while the remaining 15% were due to other variables outside the regression model which also affects GDP growth rate in Nigeria.

To determine the significance of the independent variables, we conduct a t-test for the parameter. The test of the null hypothesis against the alternate hypothesis is to reject $H_0$ if $t_c > t_{α/2, n-k-1}$ where $t_{α/2, n-k-1}$ is obtained from the t-distribution table. Therefore, at a selected 0.05 percent level of significance with $n=16$, $k = 6$, such that $t 0.05/2, 16-1-6 = t 0.025, 9$, we have critical value of 2.26. Thus, since GSEC has a t-statistic ($t_c$) of -2.99 and $t_{α/2, 9} = 2.26$, it therefore means that $t_c = -2.99 < t_c = 2.26$, which means that government securities (GSEC) has a negative influence on GDP growth and behaves insignificantly in explaining the changes in the contribution of insurance companies investment portfolios to the economic growth in Nigeria within the period under study. Stocks and Bonds (STBO) has a t-statistic ($t_c$) of 1.91 and $t_{α/2, 9} = 2.26$, it therefore means that $t_c = 1.91 < t_c = 2.26$, which means that STBO has a positive influence on GDP but behaves insignificantly in explaining the changes in the economic growth in Nigeria. Also, real estate and mortgage (REMO) has a t-statistic ($t_c$) of -0.342 and $t_{α/2, 9} = 2.26$, it therefore means that $t_c = -0.342 < t_c = 2.26$, which means that REMO has a negative influence on GDP and behaves insignificantly in explaining the changes in the economic growth in Nigeria. Policy and Other Loans (POLS) has a t-statistic ($t_c$) of -0.266 and $t_{α/2, 9} = 2.26$, it therefore means that $t_c = -0.266 < t_c = 2.26$, which means that POLS has a negative influence on GDP and behaves insignificantly in explaining the changes in the economic growth in Nigeria. Furthermore, Cash at Hand and Deposits (CHDS) has a t-statistic ($t_c$) of 0.783 and $t_{α/2, 9} = 2.26$, it therefore means that $t_c = 0.783 < t_c = 2.26$, which means that CHDS has a positive influence on GDP but behaves insignificantly in explaining the changes in the economic growth in Nigeria. Also, bills of exchange of insurance companies (BSEX) has a t-statistic ($t_c$) of 0.744 and $t_{α/2, 9} = 2.26$, it therefore means that $t_c = 0.744 < t_c = 2.26$, which means that BSEX has a positive influence on GDP but behaves insignificantly in explaining the changes in the economic growth in Nigeria.

Considering the F-statistic of 8.508 and relating this to $F_{α, n-k-1}$ at 0.05, level of significance from the F-distribution, we have $F_{0.05, 9} = 2.26$. Thus, since $F_c = 8.508 > F_{0.05, 9} = 2.26$, it infers that the model behaves significantly in explaining changes in the contributions of investment portfolios of insurance companies to economic growth in Nigeria. The F-statistic of 8.508 also confirms that there is a linear relationship between GDP and at least one of the independent variables. The Durbin-Watson statistic of 2.091 also shows that the model does not suffer from auto-correlation error.

In the second hypothesis, therefore, at a selected 0.05 percent level of significance with $n=16$, $k = 5$, such that $t 0.05/2, 16-1-5 = t 0.025, 10$, we have critical value of 2.23 and a t-statistic ($t_c$) of 5.666 and $t_{α/2, 10} = 2.23$, it therefore means that $t_c = 5.666 > t_c = 2.23$. Therefore the null hypothesis is rejected and the alternative hypothesis accepted which states that there is a significant relationship between ordinary shares, preference shares, debentures, subsidiaries, other investments, total investments of commercial banks and economic growth in Nigeria from 1996 to 2011. A regression coefficient of 7618.724 implies that there is a positive relationship
between ordinary shares, preference shares, debentures, subsidiaries, other investments of commercial banks and economic growth in Nigeria from 1996 to 2011. The coefficient of determination (R$^2$) was 0.966 which implies that about 96.6% variations in GDP were caused by ORSH, PRSH, DEBS, SUBS, and OIVS while the remaining 3.4% were due to other variables outside the regression model which also affects GDP growth rate in Nigeria.

To determine the significance of the independent variables, we conduct a t-test for the parameter. The test of the null hypothesis against the alternate hypothesis is to reject $H_0$ if $(t_c) > t_{\alpha/2}$, n-k-1 where $t_{\alpha/2}$, n-k-1 is obtained from the t-distribution table. Therefore, at a selected 0.05 percent level of significance with n=16, k = 5, such that $t_{0.05/2, 16-1-5} = 0.025$, 10, we have critical value of 2.23. Thus, since ordinary shares (ORSH) has a t-statistic $(t_c)$ of 2.927 and $t_{\alpha/2, 10} = 2.23$, it therefore means that $t_c = 2.927 > t_i = 2.23$, which means that ordinary shares (ORSH) has a positive influence on GDP growth and behaves significantly in explaining the changes in the contribution of commercial banks’ investment portfolios to the economic growth in Nigeria within the period under study. preference shares (PRSH) has a t-statistic $(t_c)$ of 1.811 and $t_{\alpha/2, 10} = 2.23$, it therefore means that $t_c = 1.811 < t_i = 2.23$, which means that PRSH has a positive influence on GDP but behaves insignificantly in explaining the changes in the economic growth in Nigeria. Also, debentures (DEBS) has a t-statistic $(t_c)$ of -1.079 and $t_{\alpha/2, 10} = 2.23$, it therefore means that $t_c = -1.079 < t_i = 2.23$, which means that DEBS has a negative influence on GDP and behaves insignificantly in explaining the changes in the economic growth in Nigeria. Subsidiaries (SUBS) has a t-statistic $(t_c)$ of -1.364 and $t_{\alpha/2, 10} = 2.23$, it therefore means that $t_c = -1.364 < t_i = 2.23$, which means that SUBS has a negative influence on GDP and behaves insignificantly in explaining the changes in the economic growth in Nigeria. Furthermore, other investments of commercial banks (OIVS) has a t-statistic $(t_c)$ of 4.13 and $t_{\alpha/2, 10} = 2.23$, it therefore means that $t_c = 4.13 > t_i = 2.23$, which means that OIVS has a positive influence on GDP and behaves significantly in explaining the changes in the economic growth in Nigeria.

Considering the F-statistic of 57.529 and relating this to $F_{\alpha, n-k-1}$ at 0.05, level of significance from the F-distribution, we have $F_{0.05, 10} = 2.23$. Thus, since $F_c = 57.529 > F_{0.05, 10} = 2.23$, it infers that the model behaves significantly in explaining changes in the contributions of investment portfolios of commercial banks to the economic growth in Nigeria. The F-statistic of 57.529 also confirms that there is a linear relationship between GDP and at least one of the independent variables. The Durbin-Watson statistic of 0.896 also shows that the model does not suffer from auto-correlation error.

**CONCLUSION AND RECOMMENDATION**

Considering the findings of this study, it was concluded that there is no significant relationship between government securities, stock of bond, real estate and mortgage, policy and other loans, cash deposits, bills of exchange of insurance companies and economic growth in Nigeria from 1996 to 2011. This implies that investment portfolios of insurance companies do not contribute significantly to economic growth in Nigeria within the period under study. Also, there is a significant relationship between ordinary shares, preference shares, debentures, subsidiaries, other investments, total investments of commercial banks and economic growth in Nigeria from 1996 to 2011. This implies that investment portfolios of commercial banks do contribute significantly to economic growth in Nigeria within the period under study. It was further
observed that the total investment growth rate of commercial banks was moving faster than the growth rate of insurance companies’ investments in Nigeria. Based on these, the following recommendations are made;
[1] Insurance companies in Nigeria should increase their investments on government securities, real estate and mortgage, policy and other loans, as well as cash at hand and deposits for more feasible contribution to the economic growth in Nigeria.
[2] Commercial banks in Nigeria should also channel their investment efforts on other subsidiaries and debentures for more realistic contribution to the economic growth in Nigeria.
[3] Investment environment Nigeria makes it difficult for insurers in all sectors (life, non-life, and composite) as well as commercial banks to generate returns on their generally large holdings of securities. This should induce them to increase their risk-taking by engaging in asset allocation or other types of strategies that increase risks for the portfolio.
[4] Increasingly competitive conditions appear to be driving some insurers and commercial banks to rely on investment returns to maintain profitability. There is therefore a need for a close monitoring of investments portfolio as well as the adoption of good portfolio management strategies.
[5] Since the total investment growth rate of insurance companies are not growing at a faster rate compared commercial banks’ investment, there is need to identify profitable investment opportunities by the insurance companies with proper project or investment appraisal techniques in order to diversify their investment portfolios.

REFERENCES

