The Global Financial Meltdown and Its Effects on Manufacturing Sector: the Nigerian Perspective

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Abstract
The world economy is facing the most severe financial crisis since the great depression of the last century. The risk of global recession has heightened significantly and volatility of commodity prices, which is the mainstay of most developing countries like Nigeria. This study examined the influence of the global financial meltdown on the Nigerian economy. It was discovered that the financial crisis will cause fall in commodity prices, decline in export, lower portfolio etc. Also, recommendation that will minimize these effects and jump start the economy was included.

Keywords: Financial crisis, Recession, Volatility and Export.

1.0 BACKGROUND OF THE STUDY
The global economic recession stares at everyone in the face, and no reasonable nation or responsible leader will run from the reality of the crisis by telling her nationals that everything is fine. Looking at Nigeria's GDP, it has shown that the share of the manufacturing sector has been relatively low. In 1970, it was about 9%, in 1980 about 10%, in 1990 about 8%, in 1998 about 6% and in 2008 about 5.9%(CBN Annual Report, 2008). Certainly, this has affected our capacity to respond effectively to our economic challenges. Though in the 90's especially 1994, the manufacturing sector's shares in the GDP was about 7%,and the GDP growth rate increased from 6.2% in 2007 to about 6.8% in 2008, despite the global crisis(with non-oil growth at 9.5% while the oil; sector has declined by 4.5%. The manufacturing sector in Nigeria is still at an infant stage, as the industrial base is small but there is still great scope for expansion. The global financial meltdown is already causing a considerable slowdown in most countries of the world. It could seem on the surface as though Nigeria is one of those countries that might be fortunate enough to avoid the global meltdown. Nigeria is not independent of the global capital systems compared with other developed nations of the world, as there is little that She exports (with the exception of oil); to really throw her into a crisis.

Nigeria is a country that is fortunately endowed with qualitative and quantitative resources though the country is still under-developed. As a result of the under-development, various plans, programs, measures, policies etc. had been set in place for development. These includes: The Structural Adjustment Program (SAP), the rolling plans, Commercialization & Privatization policy, the Import-Substitution strategy as well as the recent financial service reforms, among others.

Despite, the economic reforms that many African countries made attempts at in the last decade, there is little evidence of these having had a major impact on savings and investments (World Bank, 2004).

1.1 THE STATEMENT OF THE RESEARCH PROBLEM
From the end of 1980s till date, many problems has been found to be responsible for low growth and development in the manufacturing sector. Some of this problems are listed . Erratic power supply; virtually all the manufacturing companies in Nigeria depend on privately generated energy for productive activities. Despite the current improvement on electricity supply, a survey conducted by the Lagos Chamber of Commerce and Industry (LCCI), showed that major manufacturers were yet to switch their production lines to Power Holding Company of Nigeria's cables because of sustainability concerns, and as a result, it will automatically shoot up the cost of production and the adverse effect would be on the consumers. The manufacturing industry as a whole operates on more than 70% of energy it generates using generators and operating these generators greatly increases the cost of the goods been produced. The President of Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture (NACCIMA), Herbert Ajayi, said the current situation of the "surviving" industries poses a great threat to the survival of the manufacturing industry.

Widespread Insecurity; This has contributed to the dwindling fortunes in the manufacturing sector. According to the Lagos Chamber of Commerce and Industry (LCCI), many firms has lost up to 90percent of their sales as they could no longer access most parts of the northern market and manufacturing firms sourcing raw materials from that part of the country are now facing serious challenges due to insecurity. According to the chamber, the
security situation in the country has worsened and is still having severe adverse impact on the performance of the private sector and the economy as a whole. For example; The Niger-Delta crisis, this has worsened the situation as barrels of oil produced per day has dropped due to militant activities in kidnapping, stopping operations and damage to oil wells.

Credit Situation: This has been a major challenge in the economy, as usual, there were two dimensions to the problem; (a) access to credit and (b) the cost of fund. This has been a lamentation across sectors, but more pronounced with investors in the real sector of the economy. Banks' tolerance of the manufacturing sector has continued to decline, perhaps it is because of the perception that this sector has been very risky and many Small-Medium Scale Enterprises (SMEs) lack the capacity to package bankable credit requests as some are too small to access credit individually. These banks would rather buy treasury bills and government bonds than give loans to investors.

Unfair Competition: The real sectors are facing the serious problem of unfair competition as a result of the unbridled importation of consumer products into the country. Dangote Group and Lafarge are currently shutting down factories or running skeletal schedules because of a glut in the market which they say is caused by a displacement of their product in the market by subsidized imported cement. The situation has done considerable damage to the manufacturing sector. The areas of concern include; smuggling, faking and counterfeiting, influx of substandard products and tax evasion.

Infrastructure: The state of the roads nationwide also creates serious problems for real sector: investors as it has increased logistics costs. A typical example is the Lagos-Ibadan Expressway; with lots of potholes and traffic thus making it difficult to move raw materials from various locations to the factories, as well as the distributions of finished products across the states of the country. As well as other basic amenities that is meant to be in place but is not mainly because of the corrupt practices of leaders in the country.

Other problems includes, the shortage of skilled labour, overdependence on oil for income by the government, port congestions, lack of proper resource management and planning, etc. All the above are some of the constraints facing the manufacturing sector prior to the global financial meltdown. It is the effect of this meltdown that this research intends to examine in Nigeria.

Some experts have argued that any economic crisis of this momentum has some seeds of economic opportunities in them, as these manufacturers will have to source for their raw-materials locally. As a result of these, this research will attempt to review the global economic crisis prior to the manufacturing sector in the Nigerian economy, as the crash of the capital market has resulted into losses been made by these investors.

1.4 STATEMENT OF THE RESEARCH HYPOTHESIS:

In this part of the study, H₀ will be representing the null hypothesis (the negative statement), while

H₁ will be representing the alternative hypothesis (the positive statement). These hypothesis are as follows:

(a) H₀: That the global economic downturn has no significant effect on the performance of the manufacturing sector in the Nigerian economy.
H₁: That the global economic downturn has a significant effect on the performance of the manufacturing sector in the Nigerian economy.

(b) H₀: That inflation has no significant effect on the performance of the manufacturing sector in the Nigerian economy.
H₁: That inflation has a significant effect on the performance of the manufacturing sector in the
Nigerian economy.

(c) \( H_0: \) That widespread insecurity has no significant effect on the performance of the manufacturing sector in the Nigerian economy.
\( H_1: \) That widespread insecurity has a significant effect on the performance of the manufacturing sector in the Nigerian economy.

(d) \( H_0: \) That unemployment has no significant effect on the performance of the manufacturing sector in the Nigerian economy.
\( H_1: \) That unemployment has a significant effect on the performance of the manufacturing sector in the Nigerian economy.

1.5 STRUCTURE OF THE STUDY

This study will be made up of five sections:

The first section will include the background of the study, the statement of the research problem, the research questions, the research hypothesis, the methodology of the study, the significance of the study, the scope of the study, the limitations of the study. The second section will contain the literature review. The third section will be on the research methodology, including the various sources of data that will be used in this study. The fourth section will contain the data presentation, and the interpretation of the results. The fifth section will be dealing with the summary, conclusion and recommendation.

SECTION TWO

LITERATURE REVIEW

2.1 THE MANUFACTURING SECTOR IN NIGERIA

Since the 1970’s, Nigeria has neglected its manufacturing base, choosing instead to depend on the revenues from its oil & gas reserves to drive its economy. But Nigeria’s manufacturing industry is attracting more foreign investment than ever before, and as the government pushes to increase the sector’s share in Nigeria. Lagos and its surroundings are home to 60 percent of Nigeria’s industrial base. Other key industrial centres are Kano, Ibadan and Kaduna. Nigeria’s most important manufacturing industries include; beverages, cement, cigarettes, food processing, textiles and detergents.

Manufacturing is increasingly important to the Nigerian economy, as the government attempts to expand the non-oil sector to reduce its dependence on petroleum. The manufacturing industry in Nigeria accounted for 4.02% of GDP in 2007, up from 3.91% in 2006; it also contributed about 4.2% GDP in 2009, up from 3.6% in 2008. The sectors’ contribution to GDP has changed a little over the course of the decade. Even as industries like cement and beverages attract investments from home and abroad, other industries are closing up shops; between 2000 and 2010, more than 850 manufacturing countries have either been shut down or have temporarily halted production.

One of the main reasons for industrialization is the expansion and generation of employment. According to Oladokun et al (1979), the proportion of the labour employed in the manufacturing sector has slowed down greatly, which may be due to the under-utilization of capacity. In the manufacturing industry, the capacity utilization in 1980 was 70.1%, and by 2000, it was below 35%. Kayode (1978), made us to believe that the industrial sector and in particular, the manufacturing sub-sector is the heart of any economy. He went further to confirm that faulty or poor industrial development policies have long been recognized as major factors that adversely affect the well-being and socio-economic improvement of the people in the developing countries. He argued that such policies are the major factors contributing to low value added and low economic growth. Uzaoga (1981) also threw more light on the performance of the manufacturing sector in Nigeria. He made us to believe that Nigeria being a colony of Britain had to specialize on the production of raw materials while Britain promoted the theory based on a static theme of comparative advantage thus, diverting the Nigerian economy into activities that offered little opportunity for technical progress. The few industries established depended on foreign inputs. All these distortions according to him affected the performance of the industrial sector in terms of its contribution to the gross domestic product, employment generation capacity utilization; export and value added which are indices for measuring the performance of the manufacturing sub-sector. Investment structure in the manufacturing sector also affects the performance of the sector, looking at it from aggregate investment behaviour in the sector. Value added is a crucial indicator in measuring the significance of the manufacturing sector in the economy.

Bakitt and Bhaltacharya (1991), made us to believe that if the share of the manufacturing sector in the total GDP of an economy is low, the value added will also be very low. Low share according to them is associated with low value added. According to the paper presented in July 1983 at the national workshop on Raw Materials for Nigerian Industries, which read that: For a developing country of the size and potential of Nigeria, industrialization is essential if it is to achieve rapid economic and social development. Industrialization is also imperative, for in the world of today, every country is pursuing a policy of efficiency and effective participation.
in the global economy. Development is nothing more than ensuring that there is maximum use of the available minerals and vegetable resources for the there is maximum use of the available minerals and vegetable resources for the benefit of the citizens of the country. Manufacturing in Nigeria is still at an infant stage. It accounted for only about 6.18% of the gross domestic product in 1998; though the industrial base is small there is great scope for expansion.

The Nigerian industries are concentrated in light consumer goods. There is hardly any production of capital and intermediate goods. Another feature of the manufacturing sector is its over-dependence on imports for the supply of raw materials and spare parts, as there is no single industrial product in which the country is entirely self-sufficient. So many literatures confirmed the insignificant nature of the Nigerian manufacturing industries in terms of its contribution to economic development.

Enisan Akilo (1996) also confirmed this by stressing that the industrial sector of the Nigerian economy has been relatively insignificant right from independence in terms of its contribution to the Gross Domestic Product (GDP), as most of the earliest manufacturing industries established by the colonial trading companies and a handful of other international firms concentrated on the production of light industrial commodities such as detergents, soft drinks, leather works. Textiles and confectioneries. He went further to point out that the pre-owned post-colonial production policy occasioned distortions in the sector, which was as a result of neglecting research and an excessive reliance on foreign input. The manufacturing subsector is still characterized by distortions despite the adjustment programmes. All of these needs to be eliminated according to him, if the sector is to experience substantial growth.

2.2 THEORETICAL FRAMEWORK

Even if a country can produce everything more efficiently than another country, there is still scope for trade. A country can maximize its wealth by putting its resources into its most competitive industries, regardless of whether those countries are more competitive in those industries”. This is called the Law of competitive advantage. The idea of comparative advantage was first mentioned in Adam Smith’s Book: The Wealth of Nations; “If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it off them with some part of the produce of our own industry, employed in a way in which we have some advantage”. But the law of comparative advantages was formulated by David Ricardo who investigated in detail, advantages and alternative or relative opportunity in his 1817 book on the principles of Political Economy and Taxation. In an example involving England and Portugal. In Portugal, it is possible to produce both wine and cloth with less labor than it would take to produce the same quantities in England. However, the relative cost of producing those two goods are different in the two countries. In England, it is very hard to produce wine, and only moderately difficult to produce cloth. In Portugal, both are easy to produce. Therefore, while it is cheaper to produce cloth in Portugal than England; it is cheaper still for Portugal to produce excess wine and trade that for English cloth.

Conversely, England benefited from this trade because its cost of producing cloth has not changed but it can now get wine at a lower price, closer to the cost of cloth. The conclusion drawn is that each country can gain by specializing in the good where it has comparative advantage, and trading that good for the other.

The Ricardian model focuses on comparative advantage which arises due to differences in technology or natural resources. The Ricardian model does not directly consider factor endowments, such as the relative amounts of labour and capital within a country.

The Heckscher-Ohlin Model builds on David Ricardo’s theory of comparative advantage by predicting patterns of commerce and production based on the factor endowments of a trading region. The model essentially says that countries will export products that use their abundant and cheap factor(s) of production and import products that use the countries’ scarce factor(s). The results of the H-O model are that countries will produce and export goods that require resources (factors) which are relatively abundant and import goods that require resources which are in short supply.

Therefore, an absolute advantage is said to exist when a country can produce a commodity with less costs per unit produced than its trading partner could. By the same reasoning, it should import commodities in which it has an absolute disadvantage. While, there are possible gains from trade with absolute advantage, comparative advantage extends the range of possible mutually beneficial exchanges; thus a country does not need to have an absolute advantage in the production of any commodity for international trade between that country and another country to be mutually beneficial. In other words, most manufacturing sectors do not actually export all they produce, or import all that they do not produce but they all benefit from that mutual exchange, of exporting that which is cheaper to produce for that which they can not easily produce.

The Austrian school is a school of economic thought which bases its analysis on the purposeful actions of individuals. Among the theoretical contributions of the early years of the Austrian school are the subjective theory of value, marginalism in price theory, and the formulation of the economic calculation, which became accepted parts of mainstream economics.

The Austrian school believes that the subjective choices of individuals under all economic phenomena. Austrians
seek to understand the observed economy by examining the social ramifications of such individual’s choice. This approach, termed methodological individualism, differs significantly from many other schools of economic thought, which may have placed less importance on individual knowledge, time, expectation and other subjective factors and focused instead on aggregate variables, equilibrium analysis and the consideration of societal groups rather than individuals.

Most researches regarding the theory finds, that it is inconsistent with empirical evidence. Economists, such as Gordon Tullock, Milton Friedman, and Paul Krugman have said that they regard the theory as incorrect. Also, some economists argued that Austrians are often averse to the use of mathematics and statistics in economics.

Chicago school of economics;

The Chicago school of economics is a neoclassical school of economic thought with a strong focus around the faculty of the University of Chicago, some of whom have constructed and popularized principles.

2.3 THE IMPACT OF THE GLOBAL FINANCIAL MELTDOWN ON THE MANUFACTURING SECTOR OF THE NIGERIAN ECONOMY.

Economic recession basically leads to the decline of the manufacturing sector, unemployment, reduced earnings, investments and savings which is the post of the theory of economic shocks. When there is a shock, it is more or less a change in the economic performance, which might be temporary. However, the business cycle theories stressed that if there is insufficient consumption and unstable investment, it can bring about fluctuations in output and unemployment.

(Keynes 1993) stressed that in a depressed economy where savings and investment are determined by other factors other than the interest rates, a way-out is to stimulate demand as this could be achieved through government intervention. The instantaneous caustic effect of the economic meltdown on several organizational systems worldwide is the inability to maintain the current productive capacity owing to inadequate finance. The global economic crisis is expected to lead to a dramatic increase in the number of people joining the ranks of the unemployed, the working poor and those in vulnerable unemployment.

Based on new developments in the labour market and depending on the timelessness and effectiveness of recovery efforts, the global unemployment in 2009 increased over that of 2007’s by a range of 18 million to 30million workers, and this situation will continue to deteriorate (ILO 2009).

The public services system could also wind up if it gets to the extreme leading to mass retrenchment of public servants and the consequent graduation of large number of the population to a state of poverty. For example, it was recorded that the global economic meltdown pushed 90million more people into extreme poverty thus prompting the 2009 L’Aquila G8 summit to hail the Food Security Initiative as a major commitment to root out hunger and poverty (Nwanze 2009).

The reverberating effects of the meltdown have been felt in the banking industry, the capital market and other vital sectors as exemplified by the collapse in investment while rescue packages are been drawn up and interest rates cuts across the world. As the stimulus programmes are increasing public sector debt, more countries are now turning to public private partnership (PPP) to harness private sector debt and use the private sector to carry out services previously run by the public sector. Economists have projected that as the world moves out recession, we will see a further expansion of public private partnership (PPP) across the world. But some of the noted impacts of the crisis include; lower economic growth, translating into a higher poverty index, increased crime rate, weaker health systems, poor education systems and difficulties in meeting the targets of the Millennium Development Goals (MDG’s) (Fabunmi and Aiteonokhuoya 2009).

Several opinions were made in relation to the possible effect that the global financial meltdown could have on the Nigerian economy, however, few of these studies explore the impact of the crisis on the real sector of the economy. This is because the financial meltdown affects countries differently and the views of the individuals appraising the meltdown will be through different approaches too.

2.4 THE UNTOLD HARDSHIP OF NIGERIA’S MANUFACTURING SECTOR (As at 2012)

The Lagos Chamber of Commerce and Industry (LCCI), in its Business Environment Report 2012 disagreed with the Federal Government’s claims of significant economic growth on the nation’s economy, while the Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture (NACCIMA) recently said no fewer than 800 companies in Nigeria closed shop between 2009 and 2011 mainly due to harsh operating business environment.

NACCIMA president, Dr. Herbert Ajayi said, “More than half of the surviving firms had been classified as ailing, which poses a serious threat to the survival of the manufacturing industry in the country”. Capacity utilization in industries hovered around 30 percent and 45 percent on the average, with 100 percent overhead costs.

“Political and economic factors contribute greatly to the decline in the manufacturing sectors. For instance, poor infrastructure and epileptic power supply are also key impediments to the industry. The industry as a whole
operates on more than 70 percent of energy it generates, using generators and operating these generators greatly increases the cost of manufacturing goods in Nigeria”, he stated.

“Other factors include; increase in the prices of petroleum products used by industries, multiple taxation, unabated smuggling, and inadequate access to finance, both local and abroad”, he added.

Corroborating Ajayi’s views, National President, Nigerian Association of Small Scale Industrialists (NASSI), Mr. Chuku Wachuku told Peoples Daily that many companies operated below capacity in 2012 because of unstable power supply, inadequate funds and high labour costs.

This, he said has increased businesses’ expenses, reduced productivity and hampered economic growth making many firms to shut down or relocate to neighbouring countries. He said the manufacturing sector is facing challenges in the face of the economic crisis that has accentuated the loss of competitiveness against manufactured products from China. The blackouts are negatively impacting the economy, which is grappling with a combination of slow growth, a weak currency, high rate of inflation.

According to data obtained from the office of the Director-General, West African Institute of Financial and Economic Management, “In developing countries where the real sectors are thriving, the manufacturing sector contributes as much as 35 and 40 percent to the GDP. For instance, in Malaysia, the manufacturing sector contributes about 45 percent to the GDP.

According to the data, “at present, about 30 million youths are employed in Nigeria. The economy is growing at almost 8percent, but we still have rising level of poverty of about 70 percent. The rate of unemployment stands at about 24percent, which is about 35percent among the youth. Though increasing unemployment rate is a global phenomenon, we must tackle it in Nigeria”.

Small and Medium Scale Enterprises (SMEs), according to export, contribute nearly half of the nation’s GDP and accounts for over 25percent of employment in the country.

Also, the recent release from the Enterprise Baseline Survey 2012 stated that there are 17million SMEs in Nigeria, employing 32.41million persons and making a contribution of about 46.54percent to the GDP.

Also, the CBN has been in the forefront of building a synergy between the financial and real sector of the economy, in order to enhance accessibility to capital for operators of SMEs in the country. The initiative is to ensure that the operators of SMEs have access to low cost funds to boost their operations and for start-ups to enhance expansion of smaller units of businesses across the country. This will bring about long-term benefit of boosting domestic production capacity for local manufacturers, such that they are able to carry out operations with reduced cost.

According to the LCCI report, major challenges faced by the manufacturing sector are rising cost of production due to high cost of capital and alternative source of power as well as increasing cost of labour due to scarcity of required skills and new minimum wage legislation expansion, leading to importation of technical skills required by the industries.

2.5 NIGERIA: MANUFACTURING SECTOR IN 2013-JOB CREATION, POWER, AND SECURITY

The national president of the Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture (NACCIMA), Dr. Herbert Ademola Ajayi, in a chat with LEADERSHIP said that the 2012 performance did not translate to any significant positive impact on the real sector of the economy and the citizenry.

He said for the business community, the challenges arising from an unfriendly operating environment and infrastructural constraints, particularly in the areas of power and energy, and of course, security which when summed up and added to other challenges, economic and social ailments, would easily wipe out any gains or progress recorded in the manufacturing sector in 2012.

He noted that available statistics on macro-economic indicators showed some development in 2012, including an exchange rate, which stabilized within a band of typically characterized by upsides and downsides, but the latter seemed to outweigh the former.

The economy, he said, offered tremendous opportunities during the year, but the capacity of investors to harness the opportunities were constrained by the prevailing challenges of the operating environment, adding that the limitations were even more profound for indigenous entrepreneurs.

“The country is reputed for its robust natural endowments, youthful demography, large coastlines, largest population in the continent, seventh largest oil-exporting country in the world, a large enterprising population, an innovative banking sector, a GDP growth of 6.6percent, which is one of the best globally; rising foreign reserves which was $44.5billion as at November 2012, excess crude account of $9.6billion and a stable polity, bolstered by increased credibility of the electoral process.

All these formed the major components of the upside in the economy in 2012”, the chamber said, but lamented that for most investors, the downside was more overwhelming, as the operating environment was generally adjudged to be unsatisfactory by many investors, which had profound impact on returns on investment (RoI) and profit margins.
SECTION THREE
RESEARCH METHODOLOGY

3.1 INTRODUCTION
This section primarily focused on how the research will be conducted; it equally describes the specification of the model and description analysis, evaluation criteria, estimation technique, nature and source of data. The relevant data will be gathered through the secondary sources. It shall utilize both the statistical analysis and descriptive analysis. While the statistical analysis allows for a quantitative description and explanation of data collected, the descriptive analysis involve theoretical description of available data. The statistical tool that shall be used in this research is the multiple regression analysis.

3.2 NATURE AND SOURCE OF DATA
The data used were gathered from secondary sources. The major sources of data collected in this study are documented materials sourced from journals and reports of the government or her agencies. Therefore, the basic sources of data for this study are CBN statistical Bulletin 2010, Nigerian Bureau of Statistic and Annual Budgets form the Nigeria Budget Office form 1983-2012.

3.3 SAMPLE SIZE
The data used is a time series range of Thirty (30) Years. This represents the various values of variables being considered during the stated period of time.

3.4 RESTATEMENT OF HYPOTHESIS
Hypothesis 1
\[ H_0: \text{Government spending has negative relationship with economic development.} \]
\[ H_1: \text{Government spending has positive relationship with economic development.} \]

Hypothesis 2
\[ H_0: \text{Government spending on Recurrent and Capital Expenditure has no significant relationship with economic development in Nigeria.} \]
\[ H_1: \text{Government spending on Recurrent and Capital Expenditure has significant relationship with economic development in Nigeria.} \]

3.4.1 HYPOTHESIS TESTING
The T-test method technique of hypothesis testing will be used to test the hypotheses making use of 5% level of significance to determine the reliability of the parameter at (N-1) degree of freedom. Before we accept or reject any of the hypothesis stated based on the result of analyzed data, certain criteria have to be put into consideration. These criteria would help us determine whether the values of the parameter obtained are theoretically meaning and statistically satisfactory

3.4.2 ECONOMIC A PRIORI CRITERIA
ECONOMIC TEST (A Priori Expectation)
Tests shall be conducted to ascertain the a priori expectations which examine magnitude and signs of the parameter estimates. This evaluation is guided by economic theory. The aim of this test is to conform whether the parameter estimates conform to a priori expectation. The variables used in the model and their a priori expectations are analyzed below in table (2).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Expected sign</th>
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<tbody>
<tr>
<td>RGDP,</td>
<td>This is Real Gross Domestic product which represent the real output represent the real output of the economy. Its natural logarithm is taken</td>
<td>It is the dependent variable and considered to be stochastic.</td>
</tr>
<tr>
<td>REXR,</td>
<td>This is the real exchange rate. It is the rate at which the domestic currency is being exchanged for the foreign currency with adjustment for relative price index; it is an external shock to the economy.</td>
<td>It is expected to be negative.</td>
</tr>
<tr>
<td>RIN,</td>
<td>This is the real interest rate. It is the real cost of borrowing fund in the financial market. It is an internal shock.</td>
<td>It is expected be negative</td>
</tr>
<tr>
<td>EXP</td>
<td>This is the value of all visible and invisible export of the country.</td>
<td>It is expected to be positive.</td>
</tr>
<tr>
<td>ECM,-1</td>
<td>This is the error correction mechanism.</td>
<td>It is expected to be negative.</td>
</tr>
</tbody>
</table>

Table 2: a priori expectations

3.5 DATA ANALYSIS
3.5.1 MODEL SPECIFICATION
In order to investigate the relationship between variables, the functional model is explicitly formulated to form the basis of the quantitative economic analysis. It is given as;
MODEL
\[ \text{GDP} = F(\text{Recurrent Expenditure (REC), Capital Expenditure (CAP)}) \]
RGDPt: $\alpha_0 + \alpha_1 IN_t + \alpha_2 EXR_t + \alpha_3 EXP_t + U$

A priori, $\beta_0, \beta_1$ and $\beta_2 > 0$

RGDP = Real Gross Domestic Products
IN = Interest Rate
EXR = Exchange Rate
EXP = Export
U = error term

3.5.2 MODEL ANALYSIS

To attain the objective of this study, the approach that will be taken will be historical descriptive and analytical using qualitative techniques of analysis. Also, the study will adopt the Ordinary Least Square (OLS) method of Multiple Regressions. The regression model will be employed in order to effectively analyze the trend of fiscal policy as regards the effect of government expenditure on economic development in Nigeria.

3.5.3 STATISTICAL TOOLS OF DATA ANALYSIS

This research study will make use of the Statistical Package EViews 7.

SECTION FOUR

ANALYSIS AND INTERPRETATION OF DATA

4.0 INTRODUCTION

This chapter contains the statistical analysis of the data used in the study. The analysis of the data will be done using both statistical and econometric criteria available. Thus, the findings of the study will be done using data relating to Nigerian economy. To carry out this empirical estimate, conventional examination of time series data, i.e the test for stationary and co-integration, will be done to confirm if macroeconomic variables chosen for this study are non-stationary and co-integrated.

4.1 DATA AND ECONOMIC INDICATORS

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<th>INT</th>
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<tr>
<td>1994</td>
<td>899863.2</td>
<td>206059.2</td>
<td>21.89</td>
<td>13.5</td>
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<tr>
<td>1995</td>
<td>1933211.6</td>
<td>950661.4</td>
<td>21.89</td>
<td>13.5</td>
</tr>
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<td>1996</td>
<td>2702719.1</td>
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<td>21.89</td>
<td>13.5</td>
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<td>1997</td>
<td>2801972.6</td>
<td>1241663</td>
<td>21.89</td>
<td>13.5</td>
</tr>
<tr>
<td>1998</td>
<td>2708430.9</td>
<td>751856.7</td>
<td>21.89</td>
<td>14.31</td>
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<tr>
<td>1999</td>
<td>3194015</td>
<td>1188970</td>
<td>92.69</td>
<td>18</td>
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<tr>
<td>2000</td>
<td>4582127.3</td>
<td>1945723</td>
<td>102.11</td>
<td>13.5</td>
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<tr>
<td>2001</td>
<td>475586</td>
<td>1857954</td>
<td>111.94</td>
<td>14.31</td>
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<tr>
<td>2002</td>
<td>6912381.3</td>
<td>1744178</td>
<td>120.97</td>
<td>19</td>
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<tr>
<td>2003</td>
<td>8487031.6</td>
<td>3087886</td>
<td>129.36</td>
<td>15.75</td>
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<tr>
<td>2004</td>
<td>11411067</td>
<td>4602782</td>
<td>133.5</td>
<td>15</td>
</tr>
<tr>
<td>2005</td>
<td>14572239</td>
<td>7246535</td>
<td>132.15</td>
<td>13</td>
</tr>
<tr>
<td>2006</td>
<td>18564595</td>
<td>7324681</td>
<td>128.56</td>
<td>12.25</td>
</tr>
<tr>
<td>2007</td>
<td>20657318</td>
<td>8309758</td>
<td>125.83</td>
<td>11</td>
</tr>
<tr>
<td>2008</td>
<td>24296329</td>
<td>1014738</td>
<td>118.57</td>
<td>12</td>
</tr>
<tr>
<td>2009</td>
<td>24794239</td>
<td>8402151</td>
<td>148.9</td>
<td>12</td>
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<tr>
<td>2010</td>
<td>29205783</td>
<td>11542024</td>
<td>150.3</td>
<td>12</td>
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<tr>
<td>2011</td>
<td>37409861</td>
<td>14240232</td>
<td>153.86</td>
<td>12</td>
</tr>
<tr>
<td>2012</td>
<td>40544100</td>
<td>15002868</td>
<td>157.5</td>
<td>12</td>
</tr>
</tbody>
</table>

Sources: CBN statistical Bulletins 2012

RGDP = Real Gross Domestic Products, EXR = Exchange Rate, EXP = Export and IN = Interest Rate.
4.1 UNIT ROOT TEST

As mentioned above, the first point of our analysis is to conduct the unit root test of stationarity using the Augmented Dickey-Fuller (ADF) test. The result is presented in table 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF</th>
<th>Critical Values</th>
<th>Order of Integration</th>
<th>PP</th>
<th>Critical Values</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>LogGDP**</td>
<td>-5.8735</td>
<td>-3.71146</td>
<td>-2.98103</td>
<td>I(1)</td>
<td>-4.3978</td>
<td>-3.6892</td>
</tr>
<tr>
<td>LogINT**</td>
<td>-5.6300</td>
<td>-3.6999</td>
<td>-2.9763</td>
<td>I(1)</td>
<td>-6.8594</td>
<td>-3.6892</td>
</tr>
</tbody>
</table>

** indicates significance at 5% and 1% levels and indicates the order of integration.

Source: Researchers's Computation from Eviews 7

Decision Rule: Reject the null hypothesis if the t – adf calculated is > the value of the two critical values; that is at 1% and 5%. As shown in Table 4.1, the variables have the same order of stationarity; all the variables are stationary at first difference. That is, saying they are all integrated of order I (1).

4.2 CO-INTEGRATION TEST

Given the unit root properties of the variables, we proceeded to implementing the Johansen co-integration procedure. Since the dependent variable has the same order of integration with some explanatory variables, we estimate their linear combination at level form without the intercept and obtain their residual, which is then subjected to co-integration test as shown below:

**TABLE 3: JOHANSEN CO-INTEGRATION TESTS**

Date: 10/01/13  Time: 20:29
Sample (adjusted): 1985 2012
Included observations: 28 after adjustments
Trend assumption: Linear deterministic trend
Series: LOG(EXP01) LOG(EXR) LOG(GDP) LOG(INT)
Lags interval (in first differences): 1 to 1

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace Statistic</th>
<th>5 Percent Critical Value</th>
<th>1 Percent Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>None **</td>
<td>0.685834</td>
<td>64.28824</td>
<td>47.21</td>
<td>54.46</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.382375</td>
<td>31.86886</td>
<td>29.68</td>
<td>35.65</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.325870</td>
<td>18.37642</td>
<td>15.41</td>
<td>20.04</td>
</tr>
<tr>
<td>At most 3 **</td>
<td>0.230464</td>
<td>7.335105</td>
<td>3.76</td>
<td>6.65</td>
</tr>
</tbody>
</table>

Trace test indicates 4 cointegrating equation(s) at the 5% level
Trace test indicates 1 cointegrating equation(s) at the 1% level
** denotes rejection of the hypothesis at the 5%(1%) level

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Max-Eigen Statistic</th>
<th>5 Percent Critical Value</th>
<th>1 Percent Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>None **</td>
<td>0.685834</td>
<td>32.41938</td>
<td>27.07</td>
<td>32.24</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.382375</td>
<td>13.49245</td>
<td>20.97</td>
<td>25.52</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.325870</td>
<td>11.04131</td>
<td>14.07</td>
<td>18.63</td>
</tr>
<tr>
<td>At most 3 **</td>
<td>0.230464</td>
<td>7.335105</td>
<td>3.76</td>
<td>6.65</td>
</tr>
</tbody>
</table>

Max-eigenvalue test indicates 1 cointegrating equation(s) at both 5% and 1% levels
** denotes rejection of the hypothesis at the 5%(1%) level

Source: Researchers's Computation from Eviews 7

The result presented in table 4.2 shows that there is presence of co-integrating relationship among the variables (LOG(EXP), LOG(EXR), LOG(GDP), LOG(INT)) at 5% and 1% levels of significance. Therefore, we proceed with our initial model specified in chapter three.
4.3 RESULTS FROM MODELING LOG OF GDP BY OLS

The result of our OLS models is presented in Table 3

Table 4: Result Summary of model

<table>
<thead>
<tr>
<th>Dependent Variable: LOG(GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: Least Squares</td>
</tr>
<tr>
<td>Date: 10/01/13   Time: 20:32</td>
</tr>
<tr>
<td>Sample: 1983 2012</td>
</tr>
<tr>
<td>Included observations: 30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>5.687237</td>
<td>1.025093</td>
<td>5.548022</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOG(EXP01)</td>
<td>0.751750</td>
<td>0.070367</td>
<td>10.68321</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOG(EXR)</td>
<td>0.208820</td>
<td>0.103192</td>
<td>2.023602</td>
<td>0.0534</td>
</tr>
<tr>
<td>LOG(INT)</td>
<td>-0.737936</td>
<td>0.212097</td>
<td>-3.479246</td>
<td>0.0018</td>
</tr>
</tbody>
</table>

R-squared 0.992033, Mean dependent var 14.47162
Adjusted R-squared 0.991114, S.D. dependent var 2.199851
S.E. of regression 0.207373, Akaike info criterion -0.185032
Sum squared resid 1.118090, Schwarz criterion 0.001794
Log likelihood 6.775480, Hannan-Quinn criter. -0.125265
F-statistic 1079.160, Durbin-Watson stat 1.638216
Prob(F-statistic) 0.000000

Source: Researchers's Computation from Eviews 7

\[ R^2 = 0.992, \quad F(3,30) = 1079.160, \quad DW = 1.638216 \]
\[ \text{GDP} = 5.687 + 0.752\text{EXP} + 0.209\text{EXR} - 0.738\text{INT} \]
\[ \text{IN} = \text{Interest Rate} \]
\[ \text{EXR} = \text{Exchange Rate} \]
\[ \text{EXP} = \text{Export} \]

1.3.2 ECONOMIC INTERPRETATION

4.3.2.1 Export (EXP)

From the findings above, index of Export (EXP) has a coefficient of 0.752. This positive sign shows that improved growth in Export (EXP) is an incentive for rapid economic growth; this is because income/ money from export serves as injections into economy can as well encourages increase in domestic production of goods and services and thus enhance productivity in that economy and as well leads to growth in the industrial sector, because they are market for the goods and services produced, both internal and external. Holding all other variables constant, a unit percent increase in index of Export (EXP) will increase domestic economic growth by 75.2 percents.

2 Exchange Rate (EXR)

The coefficient of Exchange Rate (Exr) is 0.209; implying that a unit percent increase value of Naira will increase gross domestic product by 20.9 percents. This positive sign suggests that capital expenditure in Nigeria has proven to have a positive impact in gross domestic product; as the aggregate performance of the economy today did depend on Crude Oil export which the earnings are determine by the value of exchange rate in dollars.

3 Interest Rate (INT)

The coefficient of Interest Rate (Int) is -0.738; implying that a unit percent increase in Interest Rate (Int) will decrease gross domestic product by 73.8 percents. This negative sign of the coefficient is in line with the loanable funds theory of keynes which state an inverse relationship between interest rate and demand for funds and as well reduce investment by extend reduce economic growth.

4.3.3 STATISTICAL CRITERIA OF THE RESULT

4.3.3.1 COEFFICIENT OF DETERMINATION R²

From the result, the coefficient of determination, the Adjusted R² which is 0.991(99.1%). It shows that
approximately 99.11% of the variation in the dependent variable was explained by the independent variables. The high value of the adjusted-$R^2$ in this model doesn’t mean that there is serial correlation among the variables, as all the independent variables are statistical significant at 5% level of significance.

**T-VALUE**

Following a 2-t Rule of Thumb, a variable is statistically significant if its $t$-value is greater than 2 in absolute value at any % level of significance. On the other hand, it is statistically insignificant if its $t$-value is less than 2 in absolute value at any % level of significance (Gujaratii, 2004). Consequently, from the $t$-values generated from the regression as shown in Table 4.3, all the variables were statistically significant since at 5% level of significance except Exchange Rate (EXR) but all significant at 10%.

**TEST FOR ADEQUACY OF THE MODEL**

This test was conducted to test whether the model was well specified. Following Gujarati (2004), to find out whether the model is adequate and well specified, we use the F-test such that if F-statistics is less than 0.05 at 5% level of significance, the model is considered to be good and adequate for forecasting and policy analysis. From the result, Prob. (F-statistic) is 0.0000 at 5% level of significance implying that the model is well specified and adequate for forecasting and policy analysis.

**Statement of Hypothesis**

$H_0$: Normal specification of the model

$H_1$: Wrong specification of the model

**Decision rule**: Reject $H_0$ if $F^*$ > 0.05, and accept if otherwise.

**Conclusion**: Since $F^*$ = 0.000 < 0.05 we accept the null hypothesis and conclude that the model used is well specified.

**4.6 EVALUATION OF THE HYPOTHESIS**

The hypotheses have earlier been stated as; $H_0$ = Null hypothesis and $H_1$ = Alternative Hypothesis

**Hypothesis 1:**

$H_0$: That the global economic downturn has no significant effect on the performance of the manufacturing sector in the Nigerian economy.

$H_1$: That the global economic downturn has a significant effect on the performance of the manufacturing sector in the Nigerian economy.

**Hypothesis 2:**

$H_0$: That inflation has no significant effect on the performance of the manufacturing sector in the Nigerian economy.

$H_1$: That inflation has a significant effect on the performance of the manufacturing sector in the Nigerian economy.

**Hypothesis 3:**

$H_0$: That widespread insecurity has no significant effect on the performance of the manufacturing sector in the Nigerian economy.

$H_1$: That widespread insecurity has a significant effect on the performance of the manufacturing sector in the Nigerian economy.

**Hypothesis 4:**

$H_0$: That unemployment has no significant effect on the performance of the manufacturing sector in the Nigerian economy.

$H_1$: That unemployment has a significant effect on the performance of the manufacturing sector in the Nigerian economy.

Going strictly by the result of the table 4, all the variables conform to the “a priori” expectation, and all the variables has positive coefficients and also, there the prob. of the $T$-value are less than 0.05. It therefore, means that we reject the all null hypotheses as the variables are significant at both 5% and 10% levels of significance, but only Exchange rate is significant at 10% only.

**REFERENCE**


CBN Statistical Bulletin 2012
SECTION FIVE
SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 SUMMARY
The estimation results reveal that the explanatory variables jointly account for approximately 99.2 percentage changes in economic growth. The Durbin Watson statistic (1.638216) illustrates the absence of POSITIVE SERIAL auto correlation. The estimation results show that the variables- EXPORTS, EXCHANGE RATE AND INTEREST RATE are statistically significant in explaining changes in economic growth.
From the regression results, it is observed that exports growth will enhance economic growth and also a relatively favourable exchange rate of naira to dollars are important macroeconomic factors to be considered while planning. It must also be stated that interest rate as a factor for disinvestment (i.e discourage interest) as such efforts should be geared towards making it low as much as possible.

5.2 RECOMMENDATIONS
The recommendations presented in this section are aimed at creating instruments at two levels i.e. Nigeria and the global community, which are taken in turn. Recommendations to policymakers in Nigeria are as follows:
To deepen Financial Sector Reform: Although financial sector reforms have emerged in Nigeria since the mid-1980s, when policy makers decided to deregulate the sector, the industry continues to be plagued by incessant instability and the threat of systemic collapse. Institutional failure has been blamed for this development. Consequently, policy makers need to deepen institutional mechanisms aimed at providing an enabling environment for the money and capital markets.
Sustaining Economic Reforms: Despite successive economic reform initiatives undertaken by different Nigerian administrations since the 1980s, the economy is yet to be transformed. It is sustained by crude oil exports, which marginalizes the real sector. Consequently, policy makers should embark upon concerted policy measures aimed at diversifying the economy away from reliance on the petroleum sector, which has marginalized the real sectors. Rehabilitating Social and Physical Infrastructure: The state of infrastructure in Nigeria leaves much to the desired. Most infrastructures, including roads, electricity, water supply, etc are in moribund state and need to be rehabilitated. Therefore, there is urgent need to rehabilitate the power infrastructure aimed at up scaling capacity for electricity generation, transmission and distribution across the nation.
Embracing Poverty Reduction Strategies: In view of the poverty profile of Nigeria, which has assumed an endemic dimension in the past couple of decades, there is urgent need to deepen the nation's anti-poverty agenda. Therefore, government's anti-poverty initiatives should be more focused, targeting specific categories of the population that are vulnerable: unemployed, aged, women, handicapped and infirmed.
Competition: This also has to be considered in any economy. In the sense that, it is part of any producer in any economy would undergo. For example; In Nigeria, Electricity is one of the major problems any producer will face. Thus, a producer operating with a fixed power supply will end up reducing his cost of production unlike any other producer operating with an alternative power supply (Generator).

5.3 CONCLUSION
The global economic crisis has shaken economic activities in both industrialized and developing economies, in a development that is acknowledged as the severest since the Great Depression. The emergent crisis has undermined economic growth, trade, investment and credit, creating a deep concern in the global community. While indications now point to recovery of some industrial economies, most developing economies continue to suffer social and economic consequences of the global turmoil. Low income countries, which rely on primary commodities as the major source of government revenue, are at the core of the global economic crisis.
In the case of Nigeria, dwindling oil prices has undermined government's fiscal capacity to deliver critical social services, with serious consequences for the nation's development agenda.

REFERENCES