

INDUSTRIALIZATION AND ECONOMIC GROWTH IN NIGERIA (1984-2013)

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Abstract

There are empirical evidences to show that relationship exists between the level of industrialization (manufacturing) and economic growth in Nigeria. Studies have identified a significant relationship between industrial sector output and per-capita incomes. Therefore, this study tries to investigate the correlation between industrialization and economic growth in Nigeria. The study made use of time series data 1984-2013, obtained from various CBN statistical bulletins. An OLS equation was used to estimate results gotten from E-view (version 4) econometric software. We found out that there is a strong but negative and insignificant relationship between industrialization and economic growth in Nigeria for the period under study. Nigeria's industrial sector has not contributed significantly to economic growth in the last thirty years. Results from our regression show that government expenditure (GEXP), interest rate (INTR) and inflation rate (INFR) carries a negative value, implying that in the last three decades, these variables has not provided the necessary stimuli for economic growth in Nigeria. The study therefore suggests that, for industrialization to contribute significantly to economic growth, government should enhance its fiscal and monetary policy instruments, to favor industrialization. Also, emphasis should be placed on deregulation at the sub-sector level, to form a strong bloc, so that efficient and effective linkages between industrial sector and economic growth in Nigeria can be established. The privatization of the energy sector is paramount for the reduction of production cost, and an efficient transport infrastructure should be put in place. Also, local sourcing of raw materials should be encouraged

Key Words: Industrialization, Government Expenditure, Manufacturing Output, Economic Growth.

INTRODUCTION

Industrialization plays a significant role in economic growth. Industrialization acts as a drive that hastens the pace of structural transformation and diversification of economy, helps a country to fully utilize its factor endowment and to depend less on foreign supply of finished goods or raw materials for its economic growth, development and sustainability (Obasan and Adediran, 2010).

Industrialization which is a deliberate and sustained application and combination of an appropriate technology, infrastructure managerial expertise and other important resources has attracted considerable interest in development economies in recent times.(Okafor, 2005). Exchange rate in Nigeria witnessed a radical change from the long operated fixed system between the 1960s and the first half of the 1980s. It shifted dramatically from the second half of 1986 to a flexible regime when the structural adjustment programmes (SAP) began. Since the move to liberalized system, the economy witnessed series of changes that have substantially affected the trend and stability of the rate. In other words, in Nigeria, it has always been realized that economic development requires growth with structural change. In considering the Nigerian economic growth, that has been adversely affected by the prolonged economic recession occasioned by the collapse of the world oil market from the early 1980 and the attendant sharp fall in foreign exchange earnings. The economy's problems may also include dysfunctional social and economic infrastructure, excessive dependence on imports for consumption and capital goods, poor institutional framework and management strategies, unprecedented fall in capacity utilization rate in industry and neglect of the agricultural sector, among others (Adesina, 1992). These have led to the problem of economic diversification to other sector of the economy and also resulted in fallen incomes and devalued standards of living amongst Nigerians.

However, in considering the Nigerian economic development, it is instrumental to examine the growth and structural change in certain major aspects of the economy (Ajakaiye, 1999).

The recovery of the economy and its growth will require urgently rebuilding deteriorated infrastructure and making more goods and services available to the citizenry at affordable prices. The path to economic recovery and growth may require increasing production inputs – land,

labour, capital and technology – and or increasing their productivity (Kayode and Teriba, 1977). Increasing productivity should be the focus because many other countries that have found themselves in the same predicaments have resolved them through productivity enhancement schemes. For instance, Japan from the end of the World War II and the United States of America from the 1970s have made high productivity the center point of the economic planning and the results have been resounding. Also, middle income countries like China, South Korea, Singapore and India have embraced boosting productivity schemes as an integral part of their national planning and today they have made significant in-roads in the world industrial markets. In 2010, China ranked as No 1 in the world in terms of the manufacturing volumes of a variety of products. Productivity is higher in the manufacturing sector than in the agricultural sector. The transfer of resources from agriculture to manufacturing provides a structural change bonus (Obasan and Adediran, 2010).

The history of Nigeria industrialization was a classic illustration of how a nation could neglect a vital sector through policy inconsistencies and the concentration and distractions attributable to the discovery of oil. Governments after governments have failed to pursue policies that could create a vibrant real sector with the result that the impact of the manufacturing sector has steadily declined over the years and its contribution to national growth and development has been disappointingly low also, the technological base is weak primarily due to lack of investment in research and development and innovation. Industrialists depend largely on foreign machinery, equipment and spare parts, which are not sustainable due to foreign exchange problems; this deterioration in the sector is evident from its contribution to the gross domestic product, which has averaged 4 percent in the last five years, 2004-2009. The absence of locally sourced inputs has resulted in low industrialization. This explains that the nation has neglected agriculture

which has denied many manufacturers and industries their primary source of raw materials. However, in contrast to the situation in industrialized and some developing economies, the contribution of the industrial sector to the Nigeria economy, in terms of output, exports and employment, is relatively low. Thus, in spite of the various effort and incentives of government to improve industrial output and productivity, the performances of the sector do not meet the expectation of policy-makers, industrialists and analysts. For example, National Association of Small Scale Industrialists (NASSI) is of the view that the contributions of the industrial sector to the GDP has declined from 9.9% in 1981 to about 5.7% in 2003, while capacity utilization averaged between 30-35% annually during the years 2005-2007(Obasan and Adediran, 2010).

In the light of the above, this study seeks to determine the relationship that exists between industrialization and Nigeria's economic growth, to examine the contribution of the industrial sector to gross domestic product (GDP), to examine the performance of the industrial sector and then, make appropriate recommendations that can help improve industrialization in Nigeria.

LITTERATURE REVIEW

There have been a number of researches on industrialization and how it relates to economic growth and development. In Nigeria various researchers have taken time to examine the contribution of the industrial sector to the growth of the economy.

Obasan and Adediran(2010),says that between 1950 and 1973, productivity growth in manufacturing was indeed much higher than in agriculture. But after 1973, this was reversed. As in the advanced economies, productivity growth in agriculture in developing countries tends to be higher than in manufacturing. In terms of output growth, manufacturing continues to outperform agriculture in both advanced and developing economies, because the share of manufacturing in the total economy is shrinking everywhere. The macro and micro studies on

manufacturing enterprises were carried out to establish the consequences of trade liberalization for the industrial sector in African countries. Contemporary economies are largely characterized by inter-border trade. This is made possible by differences in the factor endowment of each economy as postulated by the popular theories of comparative analysis and absolute advantages. Szirmai Adam (2008) argued that electricity supply drives industrialization process. He submitted that one important indicator whether a country is industrialized or not is the megawatt of electricity consumed. He further argued that a country's electricity consumption per-capita in kilowatt hours (KWH) is proportional to the state of industrialization of that country.

Okafor (2005) used descriptive analysis to corroborate the views of these authors by arguing that poor and inefficient electricity supply has adverse implication for industrial development in Nigeria.

Adenikinju (2005) provided a strong argument to support the importance of energy supply. The poor nature of electricity supply in Nigeria, he argued, has imposed significant cost on the industrial sector of the economy. This result corroborates the survey of the Manufacturers Association of Nigeria (MAN) 2005. In that survey MAN indicated that the costs of generating power constitute about 36 percent of production.

Adegbite (2004) elaborated on the folly of running a generator economy and its adverse effects on investment. He strongly argued that for Nigeria to jump start and accelerate the pace of economic growth and development, the country should fix power supply problem.

Mazumdar and Mazaheri (2003), says that despite the uncertainty in the business environment some Nigeria companies are successfully operating in the country and getting high returns on their investments through superior competitive performance. The researchers analyzed the strategies and management planning of two Nigerian firms that have achieved a high level of

performance in the business sector. They then highlighted the main factors that contributed towards the success of these organizations. Some of these factors were the introduction of transparent management policies, pro-activeness in competitive strategies, amongst others.

Dipak and Ata (2003), argue that the main problems facing the Nigerian manufacturing sector are the ongoing advancements in technology, as these are taking the international manufacturing market towards higher levels of consumption. When there is less protection for companies, these unprotected companies have to focus more and more towards the quality of their products and do so by increasing their expenditure on research and development. In Nigeria however, the research and development work is not being done at a good level required for the constituents to even see a steady growth in the performance of manufacturing organizations. It becomes necessary then, for the Nigerian government and the private partners to intervene so that the situation can improve.

Enebong (2003) predicts that the level of the Nigerian manufacturing organizations' performance will continue to see a decline because as it is now, the manufacturers will have even more problems in accessing raw materials due to stiff competition from foreign firms. He theorizes that many of the policies implemented by the government in the late 1990s are still acting as barriers to manufacturing sector growth. Some of these policies include backward integration and the inward orientation strategies towards import substitution. The private sector also failed to play a significant role in the manufacturing industry; and there are certain reasons behind this such as import barriers, tariffs, licenses and other policies that resulted in raw materials unavailability.

Adenikinju (2002) blamed the government for the current inefficient performance of the Nigerian manufacturing sector. The researcher claimed that the increased interference of the

government in different issues related to the manufacturing industry minimized the role of the private sector and as such, the contribution of the private manufacturers seems to be very low in terms of manufacturing sector.

Adenikinju and Alaba (2000) conducted an empirical study which evaluated the Nigerian manufacturing sector's performance with regards to the relationship between productivity, performance and energy consumption with the manufacturing organizations. Utilizing an aggregate model, the researchers measured the changes in the total factor productivity of the sector relative to the change in energy consumption. The research concluded that efficiency and productivity of the Nigerian manufacturing organizations are indeed related to the energy supply and energy price. While the energy resources were found to play a critical role in the manufacturing sector though, it was also discovered that energy alone cannot effectively improve the performance of the manufacturing sector in Nigeria. An important point identified in the research was that the manufacturing sector is strongly attached to using old technology and as such, there is a good need for the adoption of more advanced energy-efficient technological devices and techniques. For this reason, reforms covering the prices of energy options alone do not significantly affect the performance of the sector because it is hindered by the need for improved technology and energy supplies. Thus, the reforms in the energy sector need to happen alongside technological reforms, otherwise the manufacturing organizations cannot entirely enjoy the advantages of the energy resources.

Anyanwu (2000) argued in his paper that fixing the energy sector is tantamount to shifting the production possibility curve of the country's economy.

Ukpong (1976) established the existence of a positive relationship between electricity consumption and economic development. In addition, he submitted that the expansion of energy sector on the demand side is important factor in accelerating the growth of the industrial sector.

The Nigerian bureau of public enterprises itself identified some of these main barriers that affected and continue to affect, the growth and development of the Nigerian industrial sector.

Their reasons include high interest rate, unpredictable government policies, non-implementation of existing policies, ineffective regulatory agencies, and infrastructural inadequacies, dumping of cheap products, unfair tariff regime and low patronage.

THEORETICAL FRAMEWORK

There are a range of competing theories to the study of economic development. Each approach has its strength and weaknesses with different ideological, theoretical and empirical conclusions. The theories include the classic theories of economic development and the endogenous growth model.

But for the purpose of this paper, we will base our study on the Endogenous growth model. The motivation for the endogenous growth model stems from the failure of the neoclassical theories to explain the sources of long-run economic growth. The neoclassical theory does not explain the intrinsic characteristic of economies that causes them to grow over extended period of time. The neoclassical theory focuses on the dynamic process through which capital-labour ratios approach long-run equilibrium. In the absence of external technological change, which is not clearly explained in the neoclassical model, all economies will converge to zero growth.

The neoclassical theory see rising GDP as a temporary phenomenon resulting from technological change or a short-term equilibrating process in which an economy approaches its long run equilibrium. The neoclassical theory credits the bulk of economic growth to a

completely independent process of technological progress. In contrast to traditional neoclassical theory, the endogenous growth models hold GNP growth to be a natural consequence of long-run equilibrium. The principal motivations of the new growth theory are to explain both growth rate differentials across countries and a greater proportion of the growth observed. In particular, endogenous growth theorists seek to explain the factors that determine the rate of growth of GDP that is left unexplained and exogenously determined in the Solow neoclassical growth equation (that is, the Solow residual). Models of endogenous growth bear some structural resemblance to their neoclassical counterparts, but they differ considerably in their underlying assumptions and the conclusions drawn. The most significant theoretical differences stem from discarding the neoclassical assumption of diminishing marginal returns to capital investments, permitting increasing returns to scale in aggregate production, and frequently focusing on the role of externalities in determining the rate of return on capital investments.

By assuming that public and private investments in human capital generate external economies and productivity improvements that offset the natural tendency for diminishing returns, endogenous growth theory seeks to explain the existence of increasing returns to scale and the divergent long-term growth patterns among countries. And whereas technology still plays an important role in these models, it is no longer necessary to explain long-term growth. A useful way to contrast the new (endogenous) growth with traditional neoclassical theory is to recognize that many endogenous growth theories can be expressed by the simple equation $Y = AK$, as in the Harrod-Domar model. In this formulation, A is intended to represent any factor that affects technology, and K again includes both physical and human capital. And there are no diminishing returns to capital in this formula, so the possibility exists that investments in physical and human capital can generate external economies and productivity improvements that exceed private gains

by an amount sufficient to offset diminishing returns. The net result is sustained long-term growth – an outcome prohibited by traditional neoclassical growth theory. Thus even though the new growth theory reemphasizes the importance of savings and human capital investments for achieving rapid growth, it also leads to several implications for growth that are in direct conflict with traditional theory. First, there is no force leading to the equilibration of growth rates across closed economies; national growth rates remain constant and differ across countries depending on national savings rates and technology levels. Furthermore, there is no tendency for per capita income levels in capital-poor countries to catch up with those in rich countries with similar savings and population growth rates. A serious consequence of these facts is that a temporary or prolonged recession in one country can lead to a permanent increase in the income gap between itself and wealthier countries. Perhaps the most interesting aspect of endogenous growth models is that they help explain anomalous international flows of capital that exacerbate wealth disparities between developed and developing countries. The potentially high rates of return on investment offered by developing economies with low capital-labor ratios are greatly eroded by lower levels of complementary investments in human capital (education), infrastructure, research and development (R&D). In turn, poor countries benefit less from the broader social gains associated with each of these alternative forms of capital expenditure. Because individuals receive no personal gain from the positive externalities created by their own investments, the free market leads to the accumulation of less than the optimal level of complementary capital.

Where complementary investments produce social as well as private benefits, governments may improve the efficiency of resource allocation. They can do this by providing public goods (infrastructure) or encouraging private investment in knowledge-intensive industries where human capital can be accumulated and subsequent increasing returns to scale generated. Unlike

the Solow model, new growth theory models explain technological change as an endogenous outcome of public and private investments in human capital and knowledge-intensive industries. Thus in contrast to the neoclassical counterrevolution theories, models of endogenous growth suggest an active role for public policy in promoting economic growth and development through direct and indirect investments in human capital formation and the encouragement of foreign private investment in knowledge-intensive industries such as computer software and telecommunications.(Obasan and Adediran, 2010).

Policies and Incentives for Nigeria's Industrial Growth

The Industrial Policy in Nigeria was first launched in 1988, to give increased attention to the development of SMIs. The document states that government will accord high priority to SMI projects, whose main objectives are to develop a broader base of entrepreneurial culture, a core of trained human power and an effective institutional structure capable of giving technical services and credit facilities to SMIs in Nigeria.

The adoption of structural adjustment programme (SAP) in 1986 led to the review of the Industrial policy of Nigeria in 1989 with emphasis on private sector led economy and the gradual disengagement of Government from all the investments that could be undertaken by private investors. The elements of this policy objective are aimed at employment generation, increased export of manufactured goods, and dispersal of industries, improving technological skills, increased local content, attracting foreign investment, and increased private sector participation.

Thus, the strategies adopted to further implement the policy were intended to:

- i. encourage increased private sector participation in the industrial sector through the divestiture of Government holdings in certain existing industrial enterprises
- ii. play a catalytic role in establishing new core industries;
- iii. provide and improve the investment climate for the country;
- iv. establish a clear set of industrial priorities,

v. And to harmonize industrial policies at all levels of Government.

The implementation of the 1989 Industrial Policy translated into the partial privatization of certain commercial banks; cement manufacturing firms, like Ashaka cement Company, west African Portland Cement Company (WAPCO) and Benue Cement Company; the National Electric power Authority (NEPA), and Nigerian Telecommunications Ltd. among others..

In 1992, the Government through the assistance of the United Nations Development Programme (UNDP) and the United Nations Industrial Development Organization (UNIDO) through the 'Strategic Management of Industrial Development (SMID), otherwise known as Industrial Master Plan, prioritized the manufacturing sector into four industrial areas namely, Engineering, Chemical/Petrochemical; Agro Allied; and Construction. Government also repealed the Nigerian Enterprises Promotion Decree of 1972 to allow 100% foreign investments in all sectors of the economy except arms and ammunitions.

The Industrial Policy of Nigeria was further revised and the current edition was published in March, 2003. Its main thrust is to accelerate the pace of Industrial development by radically increasing value-added at every stage of manufacturing with emphasis on knowledge and skill development for best practices. The policy objective is to promote the small and medium industries, increase the domestic output for both domestic and export markets, increase domestic resources utilization, increase capacity building for entrepreneurship and technical skills, increase the competitiveness of made-in-Nigeria products.

It will also facilitate the inflow of capital and technologies encourage geographical dispersal of industries, create an internal mechanism for job creation and employment opportunities and to strengthen local industries through appropriate fiscal measures. Within the framework of this policy, the industrial Master Plan has been expanded to six priority areas, which cover the

industrial systems that are fundamental to technological and industrial development of Nigeria. These subsectors are: Engineering; biotechnology; Information and Communication Technology; construction and Building materials; Chemical/Petroleum; and Agro-Allied.

The role of Manufacturing Sector in Nigeria's Industrialization and Economic Growth

You cannot talk of industrialization without examining the manufacturing sector. This is because the manufacturing sector constitutes a large chunk of industries in Nigeria. About 75 percent of all the companies and industries in Nigeria are manufacturing based, therefore the contribution of the manufacturing industry in the economy cannot be over emphasized when considering its employment potentials and financial impacts on the economy. Apart from its role of building grounds for development by laying solid foundation for the economy it also serve as import substituting industry and provide ready market for intermediate goods (Obasan and Adediran, 2010). According to Aderibigbe (2004) manufacturing industry contributes significantly to the nation's economic development in the following ways; 'increase in government revenue through tax; boost manufacturing no doubt will leads to industrialization. The bigger the number of manufacturing industries the better industrialized such society is said to be; Improve standard of living with manufacturing potentials, more of the people will be gainfully employed in various manufacturing activities, per capital income may increase and the general standard of living improved; Infrastructural growth- construction of good roads to areas where raw materials are exploited and siting of manufacturing industries to these sources of raw materials may help improve the growth of basic infrastructural requirements; Contribution to Gross National Product (GNP)- the manufacturing sector in Nigeria being next to oil has through their operations contributed to the gross national product of the country through earning from exportation of manufactured goods; Employment generation- manufacturing industry being one of the largest in

the economy performs the major role of employment generation at all levels i.e. skilled, semi-skilled and unskilled labour and thereby fulfilling one of the nation's ultimate macroeconomic goals; Enhance manpower development- the manufacturing industries provides on the job training for some of the workers to enable them to operate some machine or perform some activities and thereby enhancing manpower development; Manufacturing can also make available many essential commodities; it lead to transfer of technology; Manufacturing may bring about an improvement in bilateral relationship especially in terms of trade with other foreign nations; Industrialization lead to foreign direct investment.

METHODOLOGY

The research design is descriptive and analytical. The study is based on the use of time series data. The data utilized consists of annual observations on growth (GDP), Manufacturing sector output (industrialization), and other important indicator like exchange rate, inflation rate, interest rate for 30years (1984- 2013). The data were obtained from various issues of CBN statistical bulletin, CBN statement of account of annual reports etc. The paper will employ the use of Ordinary Least Square (OLS) methodology to analyze and test the relationship between industrialization and economic growth in Nigeria.

MODEL SPECIFICATION

This study will make use of the Solow growth model. Although subsequently modified by Mankiw et al (1992) (which is termed "Augmented Solow growth model). Solow (1956) postulated that economic growth is as a result of the accumulation of physical capital and an expansion of the labour force in conjunction with an "exogenous" factor, technological progress, that makes physical capital and labour more productive (see, Uдах 2010) In the simplified version presented in this study, we abstract from the household sector, an important feature of the

original endogenous growth model, in order to concentrate on issues concerning industrialization. The general endogenous production function

$$RGdppc = A_k \alpha L^{1-\alpha} K^\alpha \dots\dots\dots (1)$$

We assume symmetry across industries for simplicity, so that each industry will use the same level of capital and labour. Then, we have the aggregate production function as

$$RGdppc = AK^\alpha L^\beta \dots\dots\dots (2)$$

Where:

RGdppc = real GDP per capita at time t

A =total factor productivity

K = Capital stock

L = Labour.

We include initial income to control for convergence effects and secondary school enrolment to capture human capital accumulation as Beck, Levine and Loayza (2000), puts it. Further, we include several variables, such as government expenditures as a share of GDP, the share of exports and imports in GDP, the inflation rate, the black market premium and the share of credit to the private sector by financial institutions in GDP. I proxy economic development with Gross Domestic Product (GDP); industrialization (proxy by manufacturing sector output); Exchange rate to examine the healthy competitiveness, inflation rate and interest rate to examine the effect of institutional framework and government expenditure to check government commitment on the provision of infrastructural facilities that will attract investor. With these adjustment incorporated into the model, it can therefore be specified in the form expressed below.

$$\mathbf{LogRGDP = b_0 + b_1 logMO + b_2 logEXR + b_3 logINFR + b_4 logINTR + b_5 logGEXP + U_t(3)}$$

Where:

RGDP = Real Gross Domestic Product;

MO = manufacturing sector output

EXR = Exchange Rate;

INFR = Inflation rate;

INTR = Interest rate;

GEXP = Government Expenditure;

$b_0, b_1, b_2, b_3, b_4, b_5$; = parameters

U_t = Error term

From the model above, the dependent variable is RGDP while the independent variables are the manufacturing sector output, the average manufacturing capacity utilization rate, exchange rate, interest rate, inflation rate and the government expenditure.

INTERPRETATION OF ESTIMATED RESULT

The multiple linear regression analysis was equally employed to capture the effect of some important macro-economic variables and manufacturing sector output that have been assumed to either directly or indirectly influence the Economic growth and development in Nigeria for the period 1983-2013. From the results obtained, the regression equation shows that there is a strong but negative relationship between dependent variable and independent variables except for manufacturing output (MO) and exchange rate (EXR) which have a positive relationship. The probability shows that government expenditure towards industrialization has not been adequate during the said period. Also interest rates (INTR) and inflation rates (INFR), has not been favorable.

The adjusted co-efficient of determination (R^2) shows that the equation has a good fit with 0.874 percent of the analysis. The study also shows that industrialization has enhanced economic

growth in nations where it has been given primary attention. The relevance of manufacturing sector to economic growth cannot be overemphasized, as we have seen in this study.

The F-statistics is okay, and Durbin Watson (DW) statistics of 0.39 shows that there is no autocorrelation since it is below the benchmark of 2.00, hence the linear assumption stands. The f-statistics test is statistically significant, thus shows that the manufacturing sector output (MO), is statistically significant.

Conclusion and Recommendations

An attempt has been made in this paper to establish the role of industrialization using manufacturing sector output in the economic growth of Nigeria. In doing this, the study reviewed empirical literatures and formed its model from the theoretical framework from the endogenous growth model. An econometric tool was employed for the country in spite of various government policies aimed at facilitating financial and technical support for the promotion of manufacturing sector, interest rates, inflation rate fluctuation among others. Nigeria is a country that is blessed with a lot of natural resources, agriculture, oil, gas and solid mineral have been confirmed to exist in commercial quantities. Nigeria also has enormous electric power resources, a large human population forming a very big market and substantial idle capacity in all industrial sectors (CBN 2000). The result of the empirical tests provides useful insight to policy formulation and implementation. It indicates that the contribution of the industrial sector to economic growth was below the expected threshold given the forecast of industrial policies put in place since independence. This poor estimated result could be attributed to poor infrastructure especially electricity supply. This statement agrees with submission of Ajanaku (2007), who argued that poor electricity supply and other factors have contributed to the poor performance of the country's industrialization. Therefore, it has shown that Nigerian economy has the capacity to

achieve economic development and growth through the manufacturing sector, which will assist in employment generation, encouragement of entrepreneurship, mobilizing hidden capital in the economy, provide a level class of self-employed entrepreneurs, development and utilization of local and foreign technology, stemming rural-urban migration and encouragement of equitable distribution in income and wealth.(Obasan and Adediran, 2010).

For industrialization to act as a key factor in Nigeria's economic growth, the following recommendations are made;

- (1) There is need for government to improve its fiscal and monetary policy towards the industrial sector (manufacturing). The CBN should use its constitutional power to force commercial banks to lend more funds to the industrial sector in Nigeria.
- (2) There is need for sustained collaboration between government and the private sector. Government needs to sustain the present consultations with the private sector by providing incentives and the needed enabling environment to stimulate and foster the survival and growth of manufacturing sector.
- (3) There should be promotion of finance institution to cater for the creation of manufacturing sector.
- (4) There is need for government to improve infrastructures in terms of electricity, transportation, and telecommunication. This has the potential of improving industrialization in Nigeria.
- (5) There is also need for quick deregulation of the energy sector. This can help in reducing the cost of production of manufacturing industries.

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APPENDIX I

YEAR	RGDP	MO	EXR	INTR	INFR	GEXP
1984	183563	4771.4	0.8083	13.00	40.71	4100.1
1985	201036.3	6042.3	0.9996	11.75	4.67	5464.7
1986	205971.4	6098.5	3.3166	12.00	5.39	8426.8
1987	204806.5	6997.5	4.1916	19.20	10.18	6372.5
1988	219875.6	10390.5	5.353	17.60	56.04	8340.1
1989	236729.6	11040.8	7.65	24.60	50.47	15034.1
1990	267550	13847.5	9.0001	27.7	7.5	24048.6

1991	265379.1	18298.6	9.7545	20.8	12.7	28340.9
1992	271365.5	25520.8	19.6609	31.2	44.81	39763.3
1993	274833.3	37223.6	22.6309	36.09	57.17	54501.8
1994	275450.6	60991.4	21.8861	21	57.03	70918.3
1995	281407.4	101850.3	21.8861	20.79	72.81	121138.3
1996	293745.4	128390.3	21.8861	20.86	29.29	158678.3
1997	302022.5	139580	21.8861	23.32	10.67	269651.7
1998	310890.1	137758.2	21.886	21.34	7.86	309015.6
1999	312183.5	146229.5	92.5284	27.19	6.62	498027.6
2000	329178.7	161091.6	109.55	21.55	6.94	239450.9
2001	356994.3	182049.4	112.486	21.34	18.87	438696.5
2002	433203.5	219471.1	126.4	30.19	12.89	321378.1
2003	477533	266136.3	135.407	22.88	14.06	241688.6
2004	527576	321382.4	132.67	20.82	15.01	351259.9
2005	561931.4	375167.3	130.4	19.49	17.85	519510
2006	595821.4	429274.5	128.27	18.7	8.24	552385.8
2007	634251.1	464610.4	117.968	18.24	5.38	759323
		520828.2				
2008	672202.55	7	130.75	21.18	11.6	960900
		538793.4				
2009	718977.33	1	147.6	19.71	8.49	1152796.6
		564432.9				
2010	775525.7	9	148.67	20	6	883870
	834000.83.	598330.9				
2011	0	0	153.8616	23.29	10.8	918500.0
2012	888893.00	651117.48	157.4994	24.65	12.2	874800.0
		697289.6				
20013	950114.03	8	155.6805	24.69	8.5	11084.0

Source: CBN -Statistical Bulletin, 2013.

APPENDIX II

Dependent Variable: LOG(RGDP)

Method: Least Squares

Date: 12/08/14 Time: 14:01

Sample: 1984 2013

Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.76058	0.985359	10.92047	0.0000
LOG(MO)	0.311929	0.082007	3.803689	0.0009

LOG(EXR)	0.064203	0.089346	0.718585	0.4793
LOG(INTR)	-0.114356	0.204541	-0.559087	0.5813
LOG(INFR)	-0.061944	0.050312	-1.231200	0.2302
LOG(GEXP)	-0.102869	0.041915	-2.454235	0.0218
<hr/>				
R-squared	0.874645	Mean dependent var	12.84180	
Adjusted R-squared	0.848529	S.D. dependent var	0.502277	
S.E. of regression	0.195483	Akaike info criterion	-0.249835	
Sum squared resid	0.917122	Schwarz criterion	0.030404	
Log likelihood	9.747527	F-statistic	33.49117	
Durbin-Watson stat	0.385831	Prob(F-statistic)	0.000000	

Source: E-views (version 4) econometric software.