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Impact of Monetary Policy on Industrial Growth in Nigeria

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Abstract

The study empirically examines the impact of monetary policy on industrial growth in Nigerian economy, in line with the objectives of this study, secondary data were obtained from central bank of Nigeria statistical bulletin covering the period of 1970 to 2010.

In concluding the analysis, multiple regressions were employed to analyze data on such variables, manufacturing output, Treasury Bills, Deposit & leading and Rediscount Rate for Nigeria over the period 1970 to 2010 were all found have significant effects on the industrial Growth with the Adjusted R^2 of 0.8156 (81.56%)

Following the outcome of this study, it is therefore concluded that Rediscount Rate, and Deposit have significant positive effect on industrial output but Treasury Bills has the negative impact on industrial output. All the variables are statistically significant.

It is order to improve economic growth; it is recommended that government should develop the industrial sectors of the economy through its capital expenditure. With this, capital expenditure on produtives activities and social overheads capital will contribute positively to industrial growth which will invariably enhance economic growth.

Keywords*; monetary policy; Deposits; Inflation; Industrial output; Rediscount rate; Nigerian Economy*

Introduction

Background of the study

The Central Bank of Nigeria (CBN) since its establishment in 1959 has been playing a traditional role expected of a central bank, which is the regulation of money in a way to regulate the social and industrial welfare of the country. The achievement of full-employment equilibrium, rapid industrial growth, price stability and external balance is anchored on the use of monetary policy. The major objectives which have dominated CBN's monetary policy focus is based on assumption that, essential tools of achieving industrial stability and the goals are been anchored on two major objectives. Thus, inflation targeting and exchange rate policy.

Monetary policy has always been seen as a fundamental instrument over the years for the attainment of macroeconomic stability, often viewed as prerequisite to achieving sustainable output growth. Thus, in the pursuit of macroeconomic stability, the managers of monetary policy have often set targets on intermediate variables which include the short term interest rate, growth of money supply and exchange rate. Among these intermediate variables of monetary, the exchange rate is argued to have a greater influence on the economy through its effect on the value of domestic currency, domestic inflation, the external sector, macroeconomic credibility, capital flows and financial stability. Increased exchange rate directly affects the prices of imported commodities and an increase in the price of imported goods and services contributes directly to increase in inflation (CBN, 2008). the central bank is the authority with the mandate of manipulating monetary policy; through monetary policy tools, to achieving desired macroeconomic objectives which includes; the achievement of price stability with respect to both domestic and external prices. In the same vein uses inflation rate to track movement in the domestic price while exchange rate policy are used as tool in contribute towards stabilizing the macroeconomic environment of the country.

Central bank as the lender of last sort was understood during 1870 – 1920 period when the industrialized nations set up Central Banking System with one of the last being as the Federal Reserve in 1913. The interest rates also had an effect on the industries in no small part because of the marginal revolution in economic which shows how members of the public would change a decision based on a change in the industrial trade-offs.

In order to simulate the productive sectors and thereby stem inflationary pressures, the Central Bank of Nigeria allocate bank credit, fixing of interest rates at relatively low levels in order to promote investment and growth in the industrial sectors, the popular instrument of monetary policy was the insurance of credit which set the rates of change in the component and aggregate commercial banks loans and advances to the private sector. Occasionally, special deposit was imposed to reduce the amount of free reserves and credit creating capacity of the bank. The industrial sector in Nigeria is regarded as the engine of economic growth and the financial sector is widely acknowledged as the lubricant of that engine. There cannot but be a synergetic relationship between these two sectors. For this synergy to take place, a sound monetary policy is a pre-requisite (Udeala, 2002).

These indicators include proxies for the size of the firms in the industry and the financial structure of the industry such as financial leverage, the maturity structure of debt, the financing need for working capital and the ratio of cash-flow over interest rate payments. In contrast to the traditional interest rate channel, financial theories typically predict that monetary policy will have larger output effects in a recession than during a boom. The reason is that the external finance premium which depends on the net worth of the borrower will be

more sensitive to monetary policy actions during a recession when cash flows are low, firms are more dependent on external finance and collateral values are depressed. The traditional interest rate channel has a significant influence on the overall impact of policy, but not on the differential effect across booms and recessions.

Monetary policy has emerged as one of the most critical government responsibilities; monetary policy is seen as providing a flexible and powerful instrument for achieving medium-term stabilisation objectives, in that it can be adjusted quickly in response to macroeconomic developments (Philip 2010).

Monetary Policy is associated with interest rate and availabilities of credit, the instruments used include short-term interest rates and bank reserves through the monetary base. There are two forms of monetary policy; Decision about coinage and Decision to print papers money in order to create credit. The interest rate as part of the monetary authority was not generally coordinated with the other forms of monetary policy. It was seen as an executive decision and was generally in the hands of the authority with power to coin. The ability to set the price could be enforced by law even if it's different from the market price. The importance of price stability derives from the harmful effects of price volatility, which undermines the ability of policy makers to achieve other laudable macroeconomic objectives.

With the achievement of price stability, the conditions in the financial market and institutions would create a high degree of confidence, such that the financial infrastructure of the industry is able to meet the requirements of market participants. Indeed, an unstable or crisis-ridden financial sector will render the transmission mechanism of monetary policy less effective, making the achievement and maintenance of strong macroeconomic fundamentals difficult. This is because it is only in a period of price stability that investors and consumers can interpret market signals correctly. Typically, in periods of high inflation, the horizon of the investor is very short, and resources are diverted from long-term investments to those with immediate returns and inflation hedges, including real estate and currency speculation. It is on this background that this study would investigate the effectiveness of the monetary policy in Nigeria with special focus on major growth components.

Statement of the problem

One of the major objectives of monetary policy in Nigeria is price stability. But despite the various monetary regimes that have been adopted by the Central Bank of Nigeria over the years, inflation still remains a major threat to Nigeria's industrial growth. Nigeria has experienced high volatility in inflation rates. Since the early 1970's, there have been four major episodes of high inflation, in excess of 30 percent. The growth of money supply is correlated with the high inflation episodes because money growth was often in excess of real industrial growth. However, preceding the growth in money supply, some factors reflecting the structural characteristics of the economy are observable. Some of these are supply shocks, arising from factors such as famine, currency devaluation and changes in terms of trade.

Objectives of the study

The main objective of this study is to assess the effectiveness of the monetary policies in Nigeria. However, the following specific objectives are:

i To investigate the impact of the monetary policy on industrial growth

ii To evaluate the effect of money supply on manufacturing output, inflation rate, exchange rate, interest rate and economic growth in Nigeria

MONETARY POLICY IN NIGERIA

Monetary policy refers to the combination of measures designed to regulate the value, supply and cost of money in an economy, to match with the level of economic activities. It can also be described as the act of controlling the direction and movement of monetary policy and credit facilities in pursuance of stable price and economic growth in an economy; CBN (1992). According to Monetary Theory, Monetary Policy manipulates the money supply and rate of, interest in such a way to achieve the goals of the manifestation of the ruling party (Shoaib k, 2010). Monetary Policy provides a logical relationship between its variables stipulated to affects the outcomes regarding the Central Bank applies these tools to regulate the money creation, targeting the rate of interest to manage the pace of monetary circulation. The objective is to stabilize internal and external value of the currency (Wikipedia, Monetary policy January, 2011).

The primary goal of monetary policy to him is to ensure that money supply is at a level that is consistent with the growth rate will be ensured. Without mincing words, the literatures stipulate that the pursuant of price stability therefore encompasses all main areas in which the central bank can contribute towards stabilizing the macroeconomic environment of the country. Another impulsive evidence is the one from the financial press in Nigeria as reported by Christopher et al,(2006)that investors generally believe that monetary policy and macroeconomic events have a large influence on the unpredictability of the stock price, which further implies that macroeconomic variables could exert shocks on share returns and thereafter influence inventors ' investment decision.CBN (1992).

Chuku (2009) examined the effect of monetary policy innovations in Nigeria. The study used a structural vector auto-regression (SVAR) approach to trace the effects of monetary policy shocks on output and prices in Nigeria with a sample data spanning from 1986 to 2008. The study conducted the experiment using three alternative policy instruments i.e. broad money (M2), Minimum Rediscount Rate (MRR) and the real effective exchange rate (REER). The study made the assumption that the Central Bank cannot observe unexpected changes in output and prices within the same period. This places a recursive restriction on the disturbances of the SVAR and helped to generate impulse response functions that tracked the effects of monetary policy innovations on output and prices. The study found evidence that monetary policy innovations have both real and nominal effects on economic parameter depending on the policy variable selected.

Kuttner (2001) examines the impact of monetary policy actions on the bill, note, and bond yields, using U.S. Fed funds futures rates as a measure of expected component of policy changes to separate expected and unexpected components changes in the target funds. Kuttner finds that interest rate market's response to the anticipated part of monetary policy changes is small while its reaction to the unanticipated surprises is large and highly significant. He contends that the failure of previous studies in documenting the close link between monetary policy actions and market reactions is due to the inability to disentangle the anticipated component of the policy change from the unanticipated component. The impact of exchange rate regimes and exchange rate movements on inflation and growth has also been discussed in many empirical studies of developing countries. But the findings of these studies differ and cannot be generalized. As to inflation, there is a broad consensus about the role of monetary growth either as a main driving force behind inflation or, otherwise, as a necessary element in accommodating inflation triggered by other factors. However, the

impact of nominal exchange rate flexibility on inflation is more ambiguous. All empirical researches confirm that depreciations of nominal exchange rate are correlated with temporary increases in consumer prices (Akinbobola 2012).

In Nigeria as in other developing countries, the objectives of monetary policy include full employment, domestic price stability, adequate economic growth and external sector stability. Over the years, Nigeria monetary policy has undergone profound changes. It has gone from an era of direct to indirect instrument of monetary management. Before the Structural Adjustment Programme (SAP), which started in 1986, monetary management depended mainly on the direct monetary instruments such as credit ceilings, selective credit, exchange rates, interest rates; cash reserve requirements and special deposit. It is observed that the market based-instrument was not widely used during this period. Structural Adjustment Programme (SAP) was adopted in June, 1986 and it received the blessings of Breton Wood institutions. SAP was considered as the recipe that would bring the desired transformation of the economy from agrarian to industrial. Specifically, this policy came into being in order to right the wrongs of earlier policies. It aims and objectives include promoting investment, stimulating non-oil exports and providing a base for private sector led development through privatization and commercialization of public investments (Ubi, Lionel and Eyo 2012). The SAP induced industrial policies include interest rate deregulation, debt conversion (equity) swap, privatization and commercialization and new export policy incentive. The reasons for this were due to the narrowness and underdeveloped nature of the Nigerian financial markets, and the inadequate supply of the relevant debt instruments and the deliberate restraint on interest rates. During the period, the defense of the balance of payment (BOP) was the focus of monetary policy (Gbosi, 1998). The major objectives of monetary policy under SAP were the stimulation of output and employment and the promotion of domestic and external stability (CBN, 1993, 2009). In the 1990s, there existed excess liquidity in the economy. In order to reduce this excess liquidity, the monetary authorities adopted several monetary policy measures. These measures include the reduction in credit growth by banks, special deposit requirements against outstanding external payments arrears, abolition of foreign exchange guarantees/currency deposit as collateral for naira loans and the withdrawal of public sector deposits from the banks (CBN, 1988).

Busari et-al (2002) state that monetary policy stabilizes the economy better under a flexible exchange rate system than a fixed exchange rate system and it stimulates growth better under a flexible rate regime but is accompanied by severe depreciation, which could destabilize the economy meaning that monetary policy would better stabilize the economy if it is used to target inflation directly than be used to directly stimulate growth. They advised that other policy measures and instruments are needed to complement monetary policy in macroeconomic stabilization. In addition Batini (2004) stresses that in the 1980s and 1990s monetary policy was often constrained by fiscal indiscipline. Monetary policies financed large fiscal deficit which averaged 5.6 percent of annual GDP and though the situation moderated in the later part of the 1990s it was short lived as Batini, described the monetary policy subsequently as too loose which resulted to poor inflation and exchange rates record.

Goals of Monetary Policy

According to Federal Reserve Act, it is specifies that the Board of Governors and the Federal Open Market Committee should seek “to promote effectively the goals of maximum

employment, stable prices, and moderate long-term interest rates." Stable prices in the long run are a precondition for maximum sustainable output growth and employment as well as moderate long-term interest rates. When prices are stable and believed likely to remain so, the prices of goods, services, materials, and labor are undistorted by inflation and serve as clearer signals and guides to the efficient allocation of resources and thus contribute to higher standards of living. Moreover, stable prices foster saving and capital formation, because when the risk of erosion of asset values resulting from inflation are minimized, households are encouraged to save more and businesses are encouraged to invest more.

Although price stability can help achieve maximum sustainable output growth and employment over the longer run, in the short run some tension can exist between the two goals. Often, a slowing of employment is accompanied by lessened pressures on prices, and moving to counter the weakening of the labor market by easing policy does not have adverse inflationary effects. Sometimes, however, upward pressures on prices are developing as output and employment are softening, especially when an adverse supply shock, such as a spike in energy prices, has occurred. Then, an attempt to restrain inflation pressures would compound the weakness in the economy, or an attempt to reverse employment losses would aggravate inflation. In such circumstances, those responsible for monetary policy face a dilemma and must decide whether to focus on defusing price pressures or on cushioning the loss of employment and output.

Adding to the difficulty is the possibility that an expectation of increasing inflation might get built into decisions about prices and wages, thereby adding to inflation inertia and making it more difficult to achieve price stability. Beyond influencing the level of prices and the level of output in the near term, the Federal Reserve can contribute to financial stability and better economic performance by acting to contain financial disruptions and preventing their spread outside the financial sector. Modern financial systems are highly complex and interdependent and may be vulnerable to wide-scale systemic disruptions, such as those that can occur during a plunge in stock prices. The Federal Reserve can enhance the financial system's resilience to such shocks through its regulatory policies toward banking institutions and payment systems. If a threatening disturbance develops, the Federal Reserve can also cushion the impact on financial markets and the economy by aggressively and visibly providing liquidity through open market operations or discount window lending.

Effects of Monetary policy, Inflation on Industrial output in Nigeria

The industrial sector in Nigeria is regarded as the engine of economic growth and the financial sector is widely acknowledged as the lubricant of that engine. There cannot but be a synergetic relationship between these two sectors. For this synergy to take place, a sound monetary policy is a pre-requisite (Udeala, 2002).

Nigeria to begin a genuine march to industrialization, as experiences of industrializing countries have shown, a well articulated and implemented macroeconomic policy framework needs to be put in place to actualize the benefit of capital in the industrialization process (Busari 2004). He further stated that the mobilization and utilization of savings requires a sound macroeconomic policy. The policy among other things should include prudent fiscal and monetary policies. A sound monetary policy is a pre-requisite for industrial development. The monetary authority (CBN) should direct their policies towards making financial resources available to private sector organizations (Agba2004).The banks should be encouraged to provide incentives that will attract greater savings. This, combined with positive real interest rate will enable the banking sector to mobilize savings that can be channeled to the industrial sector.

Ganley and Salmon (1997) and Hayo and Uhlenbrock (2000) examine the industry effect and discovered that the cross-industry distribution of policy effects is similar across countries and that these patterns are systematically related to industry output durability and investment intensity, and to measures of firms' borrowing capacity, size and interest payment burden. In the latter model, as the economy expands, more firms find it difficult to increase their capacity to produce in the short run. As a result inflation becomes more sensitive to shifts in aggregate demand at higher rates of capacity utilization. Gertler and Gilchrist (1994), who examined movements in sales, inventories, and short-term debt for small and large manufacturing firms, confirm that the effects of monetary policy changes on small-firm variables are greater when the sector as a whole is growing more slowly. Non-linearity is also detected by Oliner and Rudebusch (1996), who find that cash flow effects on investment are stronger after periods of tight money.

Dedola and Lippi (2000), the cross-industry heterogeneity on the basis of individual, it is useful to distinguish between two broad channels: the interest rate channel and the broad credit channel. As method for the determinants of the interest rate channel, an industry dummy will be used for the durability of the goods produced by the sector, industry measures of investment intensity and the degree of openness to capture exchange rate sensitivity. As the traditional interest rate channel is expected to be operative, it should not expect significantly different explanatory power of these industry characteristics in different stages of the business cycle.

Olorunfemi and Dotun (2008) examined the impact of monetary policy on the economic performance in Nigeria using simple regression. The study found out that there was a negative relationship between interest rate and GDP on the one hand and inflation and GDP on the other. The study did not disaggregate the impact of monetary policy on the various sectors of the economy like the industrial sector. Abeng (2006) explained that monetary policy is valid only for a highly monetized economy. Thus, if the economy is not highly monetized, the efficacy of monetary policy is restricted, for instance, in an undeveloped economy where a large proportion of output is produced in a subsistence sector would be independent of the supply of money. Monetary policy therefore, would not be a better tool to manage the economy.

Tse and Ganesan (1997) suggest that the demand for private construction work is not autonomous: rather it is determined by the level of national output. If national output rises, so will the level of construction activity needed to meet the expanded production capacity. Thus, it is expected that at higher levels of national output an economy can absorb a higher level of construction activity. However, lower national income growth means that the expected profitability of firms will be lower; making it more likely those lenders will not be paid back. The rate of change of money supply tends to accelerate when the anticipated rate of growth of the national income is higher than the actual rate of growth (Friedman 1978). During a property price recession, the value of land and property as collateral for loans decreases, and consequently a developer's ability to raise further loans is reduced. The supply of credit to the industrial sector is determined by the risk–return relationship of the industrial project. According to Mishkin (1995), the bank lending channel is based on the view that banks play a special role in the financial system because they are especially well suited to deal with certain types of borrowers, especially small firms where the problems of asymmetric information can be especially pronounced. After all, large firms can directly access the credit markets through stock and bond markets without going through banks'. Thus, the credit channel focuses more specifically on the possible effect of the supply of loans by banks on

construction activity, whereas the cash flow affects work by assessing in relation to an investor's desire to spend rather than a lender's desire to lend.

Monetary policy sometimes seems to have large output effects but at other times seems to have small or no effects. While it has been argued that changes in money supply cause fluctuations in the general price level and via that way in nominal output but not in real output in the long run (Lucas 1972). By raising the cost of capital, this is likely to manifest itself in lower investment and consequently, lower output. If, in addition, the industry is highly unionized, the effect could be compounded, so much so that, the magnitude of the effect is larger as compared to a situation where the degree of unionization were low. Judged from this standpoint, it can be argued that the regulatory framework governing industrial disputes could be an important ingredient influencing industrial output (Saibal 2009).

According to Umeora (2010), there are various earnings of inflation today but there is a consensus among economists that inflation is a continuous rise in prices or what is called general price level. Simply put, inflation depicts an economic situation where there is a general and persistent rise in prices of goods and services. It could be said to be a continuous rise in prices as measured by the Consumer Price Index (CPI). People describe inflation as a situation where too much money is chasing too few goods. During inflation in an economy, the currency loses purchasing power. When referring to inflation, it is understood as overall increases in prices of all goods and services as distinct from isolated increase in one or a few goods. The prices increases must also be continuous not a once-for-all increase. Inflation is usually estimated by calculating the inflation rate of a price Index usually Consumers Price Index (CPI), which measures price changes of a selection of goods and services purchased by a typical consumer. Inflation is the percentage rate of change of price Index over time.

High inflation is associated with output sacrifice when the high inflation begins, not when it ends. Swanson (1998), using monthly data, found that money supply is important for predicting real national income (Bruno and Easterly 1998). However, Fischer (1993) suggests that inflation reduces investment and productivity growth. In this case, if money supply and inflation are positively related, then money supply and construction work must be negatively related.

According to Umeora (2010), the following are other ways of estimating inflation rate

- Cost-of-living index (COLI) which is similar to CPI.
- Producer price index (PPI) which measures average changes in prices received by domestic producers for their output. PPI differs from CPI in that price subsidization, profits and taxes may cause the amount received by the producer to differ from what the consumer paid. PPI measures the pressure being put on producers by cost of raw materials. Depending on demand elasticity for the goods, these costs could be passed on the consumers or absorbed by profits.
- Core Price Indices which try to remove volatile components such as food and oil from computation of inflation rate. By trying to remove the volatile goods and services, the Core inflation rate calculated is less affected by short run supply and de and conditions in specific markets.

RESEARCH METHODOLOGY

The model will make use of industrial index (proxied by manufacturing outputs) as the explained variable, the explanatory variables are; Treasury Bills, Deposit & leading and Rediscount Rate.

Method of data collection

The source of data for this study was from Central Bank of Nigeria (CBN) Statistical Bulletin. They are time-series secondary data assembled from CBN and that ranges from 1980 to 2011, covering a total number of 32 years.

Sample size

The duration of my research was basically from 1980-2011 which is in the range of 32yrs. This duration was used because it is detailed enough to give a good result and analysis. This study employs annual data on the rate manufacturing output, Treasury Bills, Deposit & leading and Rediscount Rate for Nigeria over the period 1970 to 2010. Data were obtained from the CBN Statistical Bulletin.

DATA ANALYSIS TECHNIQUES

Regression analysis technique was used to measure the relationship between a dependent variable and independent variables. Regression models in the following variables:
$Y = f\ (X1,\ \ X2,\ \ X3, \ldots Xn\ \ \boldsymbol{\mu})$
The independent variable $X1 - X5$
The dependent variable Y
A regression model relates Y to a function of X and $\boldsymbol{\mu}$
Error term is denoted as$\boldsymbol{\mu}$.

MODEL SPECIFICATION

$$\boldsymbol{maf = a_0 + a_1 trbl + a_2\, redis + a_3 depst + \mu} \qquad 1$$

$$\boldsymbol{mspl = a_0 + a_1 maf + a_2\, exch + a_3 intr + a_4 GDP + a_5 inft} \qquad 2$$

$$\boldsymbol{where}$$

$$\boldsymbol{maf - manufacturing,\quad trbl - treasury\ Bill,}$$
$$\boldsymbol{redis - rediscount\ rate,\quad depst - deposit\ leading}$$
$$\boldsymbol{inft - inflation\ rate,\quad mspl - money\ supply}$$
$$\boldsymbol{exch - exchange\ rate\quad GDP - Gross\ domestic\ products}$$

PRESENTATION AND ANALYSIS OF DATA

This chapter will be used in analyzing and presentation of data collected from different reliable source like CBN Statistics Bulletin 2010. This was done so as to determine the effect of monetary policy on industrial growth from the period of 1980 to 2011.

The following tables below are actually gotten from different sources but they are answers to these research questions.

Table 1- The impact of the monetary policy on industrial growth

maf	Co-eff	Std. Err.	T	P>[t]	95% Conf. Inter.	F(3,26) = 38.32
$trbl$	-.3258226	.2997748	-1.09	0.287	-.9420186 .2903734	Prob> = 0.0000
$depst$	342.1104	2519.926	0.14	0.893	-4837.671 5521.892	R^2 = 0.8156
$redis$	22.20374	2.681385	8.28	0.000	16.69208 27.71541	Adj R^2 = 0.7943

constant	**-3963.252**	**24061.39**	**-0.16**	**0.870**	**-53422.14 45495.63**	**Root MSE = 36815**

The table above show the effect of manufacturing on Treasury Bills, Deposit and leading, Rediscount Rate on Industrial growth in Nigeria, 1% increase in manufacturing output reduces Treasury Bills by 32%, this suggest that an inverse relationship between manufacturing and Treasury Bills.

On the other hand, 1% increases in manufacturing increase deposit by 34% and rediscount rate by 22%. These suggest that, there is a positive relationship between Manufacturing, Deposit and leading and Rediscount Rate.

Given the adjusted R^2 as 81%, it indicates that the independent variables incorporated into this model have been able to determine the variation of manufacturing output to 81%. The F Probability statistic also confirms the significant of this model. Likewise adjusted R^2 of 79% also confirmed the significance of the relationship between manufacturing and other independent variables.

Table 2- The effect of money supply on manufacturing, inflation rate, exchange rate, interest rate and economic growth in Nigeria.

mspl	**Coefficient**	**Std. Err.**	**t**	**P>[t]**	**95% Conf. Inter.**	**F(3,26) = 38.32**
manuf	**9.66e+09**	**1.15e+10**	**0.84**	**0.408**	**-1.38e+10 3.31e+10**	
inft	**1.80e+10**	**2.02e+10**	**0.89**	**0.380**	**-2.31e+10 5.91e+10**	**Prob> = 0.0000**
exchg	**4.84e+10**	**1.09e+10**	**4.45**	**0.000**	**2.63e+10 7.05e+10**	**R^2 = 0.8156**
intr	**-1.51e+11**	**8.54e+10**	**-1.77**	**0.085**	**-3.25e+11 2.20e+10**	**Adj R^2 = 0.7943**
gdp	**-87770.39**	**92727.16**	**-0.95**	**0.350**	**-276016.5 100475.8**	
constant	**3.38e+11**	**7.59e+11**	**0.44**	**0.659**	**-1.20e+12 1.88e+12**	**Root MSE = 36815**

The table 2 above shows the effect of money supply on manufacturing, inflation rate, exchange rate, interest rate and economic growth in Nigeria. 1% increases in money supply (MSPL) increases manufacturing output (MANUF) by 9.6%. This shows the positive relationship between money supply in Nigeria. Also 1% increases in MSPL increases inflation rate (INFT) by 1.8%, this also suggests that a positive relationship between MSPL and INFT. More so, there is a positive relationship between MSPL and exchange rate (EXCHG) because 1% increases in MSPL increases exchange rate (EXCHG) by 4.8%. The result is significant.

Contrarily, 1% increases in MSPL reduces interest rate (INTR) by 1.5%. This indicates that there is inverse relationship between MSPL and INTR. In addition, 1% increases in MSPL reduces economic growth (GDP) by 8.7%. This also suggests the inverse relationship between MSPL and GDP.

Given the coefficient of determination as 0.8156 which is 81.5% supported by high value of adjusted R^2 as 79%, it presumes that the independent variables incorporated into this model have been able to determine the variation of money supply to 79%. That is there is a significant relationship between dependent variable (money supply) and the independent variables (manufacturing, inflation rate, exchange rate, interest rate and economic growth). The F Probability statistic also confirms the significant of this model.

SUMMARY AND CONCLUSIONS

This study examined the Impact of Monetary Policy on Industry Growth in Nigeria, with particular reference to Central Bank of Nigeria (CBN), the study has been able to look into the operation of the monetary policy with various instrument like Rediscount Rate, Deposit, Treasury Bills and Manufacturing. It was found that Rediscount Rate, and Deposit have significant positive effect on industrial output but Treasury Bills has the negative impact on industrial output. All the variables are statistically significant. Also, changes in monetary policy affect the exchange value of the dollar on currency markets. The findings revealed that the relationship between money supply, inflation, exchange rate, interest rate, economic growth and industrial productivity is significant at the level of 5%. Monetary policy and inflation are closely related, such that monetary policy is viewed as the only policy available for the control of inflation, and that in the long run the inflation rate is the only macroeconomic variable that monetary policy can affect

This presumed that money supply impacts strongly upon inflation, exchange rate, interest rate, manufacturing output and gross domestic product. Inflation rates between 10 and 20 percent are bad for economic growth and reducing inflation below that level will not reduce economic growth, but the reduction in inflation is believed to be on account of improvements in the conduct of monetary policy. Differences in asymmetries in impact of monetary policy across industries can then be related to industry-specific factors such as financial and economic structure, which give important insights in which factors drive those irregularities. Monetary policy contributes to sustainable growth by maintaining price stability. In conclusion, Monetary policy has emerged as one of the most critical government responsibilities; monetary policy is seen as providing a flexible and powerful instrument for achieving medium-term stabilization objectives, in that it can be adjusted quickly in response to macroeconomic developments

Policy recommendations

Based on the findings made in the course of this study, the following recommendations are hereby suggested below:

i Government should examine its monetary policy to make them more relevant to economic development. If they are not effective, new policies which will be more relevant for economic growth and development should be established.

ii To promote growth, government should develop the industrial sectors of the economy through its capital expenditure. With this, capital expenditure on produtives activities and social overheads capital will contribute positively to industrial growth which will invariably enhance economic growth.

iii In order to keep inflation as well as inflation expectations low and stable, government should put more efforts to improve monetary-fiscal coordination through emphasis on fiscal rules.

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