

Full Length Research Paper

Analysis of monetary policy on commercial banks in Nigeria

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This study investigates analysis of monetary policy on commercial banks in Nigeria. The study employed three commercial banks in the Nigeria financial system, that is, the first generation banks. The employed data run through 1992 to 1999 and this was collected through various issues of central bank of Nigeria statistical bulletin and analysed with the use of regression model. The results showed net profit, liquidity ratio, cash ratio and interest rate on savings which confirms to the prior expectation. This could be further explained with the regression estimate whereby an increase in interest rate will leads to a decrease in the lending rate while liquidity ratio and cash ratio were statistically significant to the profit of the selected banks.

Key words: Monetary policy, commercial bank, Central Bank of Nigeria (CBN), Nigeria.

INTRODUCTION

Monetary Policy is an instrument given to the Central Bank of Nigeria (CBN) by the federal government that is, it is a function which is a documentary policy to control the aggregate demanded in the circulation or cost. The policy is to see to the stability in wages and prices of goods and services. It is also necessary to control the volume of money in circulation and to give the domestic money a value via other controls. In the monetary policy, there are many tools used in the Central Bank of Nigeria (CBN) to achieve the over all objective. Fiscal policy is used in order to compliment the effect of monetary policy of the Central Bank of Nigeria (CBN). If the monetary policy have been effectively used, there will be low inflationary trend in the economy, there by increasing or enhance the purchasing power of the citizens. In order to effectively used the Money Policy, the government or the Central Bank of Nigeria (CBN) must be pro-active in respect of the financial sector and its important or

relevance as the pivotal to the economic development. However, the monetary policy in Nigeria have been always ineffective due to some factors such as, irregularity over loan, oligopolistic structures of the banks, dual markets, poverty and low valuation of financial assets in the market.

Monetary policy aims at controlling the activities of banks and other financial sectors in the economy, but in spite of the key position this control occupies in the economy, care had not been taken to really exploit the trend of events in the economy so as to come up with the appropriate regulation and deregulation policy. If this is done, positive indicators will begin to appear in the economy. For now, there is instability in the economy and the inflationary rate is very high. Economists have been interested in the effect of fiscal and monetary policies in the economy. Recent studies have analysed the impact of market structure on profitability in the banking industry. In general, some of these studies have concluded that market structure does not significantly influence profitability. In contrast, most studies of pricing policy have found that 'the prices of bank services increase with the

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degree of monopoly in the banking sector. In view of this, it is therefore pertinent to evaluate the impact of monetary policy on commercial banks.

Ajayi (1978) emphasized that the instrument of monetary policy will vary depending on the economy in question. The criteria for choosing any instrument cannot be stated in any ambiguous terms. Schwartz (1969) said that the three criteria often used in judging the short term target of any monetary instrument are whether it is measurable and can be controlled by the Central Bank and whether the instrument can be used as an indicator of monetary conditions. Crockett (1973) highlights the main technique by which the Central Bank may achieve monetary policy objectives into market intervention and portfolio constraints. He stressed that market intervention relies on the power of Central Bank as a dealer in the financial markets to influence the availability and rates of returns on assets while portfolio constraints places restrictions on a particular group of institution (banks) to limiting their freedom to acquire assets and liabilities. Classifying monetary instruments into quantitative and qualitative tools, Ramlett (1969) remarked that though quantitative tools operate customarily by influencing the cost, volume and availability of bank reserves and thereby affecting the supply of credits, the effect is generally impaired and impersonal. Qualitative tools however, typically seek to regulate the demand for credit of specific users and are therefore selective.

Monetary policy instruments are classified into the distinct groups namely; traditional, direct control and qualitative methods. Ndiomu (1993) is of the opinion that, the traditional instruments requires the existence of a developed and a properly functioning money market and these are confined to the short-term. The market direct control instrument are non-market weapons used in developing countries to strike at the liquidity of commercial banks while qualitative instruments are aimed at influencing the direction of bank advances and the amount that go into any particular sector of the economy. CBN (1993) has it that the economic environment that guided monetary policy before 1986 characterized by the growing importance of the oil sector, the ending role of the public sector in the economy and over-dependence on the external sector.

The economic environment, which guided monetary policy in the SAP era, could be termed the period of boom and burst. In order to maintain price stability and a healthy balance of payment position, monetary management depended on the use of direct monetary instrument such as credit ceilings, selective interest controls, administered interest exchange rates as well as the prescription of reserve requirement and special deposit. The use of market-based instruments was not feasible at that point because of the underdeveloped nature of financial markets and the deliberate restraint on interest rates.

From the mid-1970, it became increasingly difficult to achieve the aims of monetary policy. Generally, monetary

aggregates, government fiscal deficits, GDP growth with rate, inflation rate and the balance of payments position moved in undesirable positions/directions. As Ajayi and Ojo (1979) observed, a review of major developments in the Nigerian economy showed that the inflationary trend in country started its upward turn at the end of the civil war in 1970. Contributory factors responsible for the inflationary trend include disruptions of production by civil war and the unrealistic wage increases awarded by the Adebo and Udoji.

Throughout the early 1980's, the Nigerian economy continued to experience the problem of low domestic output, high rate of inflation, unemployment, huge public debt and balance of payment disequilibrium. In 1984, domestic output dropped by 5.5%. The problem of inflation still persisted. The rate of inflation was 9.9% in 1980. But by 1984, it had jumped to 39.6%. There was also the problem of inadequate foreign exchange earnings. It was thus visible that institutional economic reforms must take place in order to correct the imbalances e.g. several austerity measures was adopted by Shagari Administration during the period 1980 to 1993. As noted by Ojo (1993) such measure was the Economic Stabilization act, which was passed in 1982.

The act stipulates that a package of fiscal, exchange control and monetary measures was adopted with the aim of conserving the country's foreign exchange, and measures were also aimed at stimulating local manufacturing in order to restrict imports and smuggling. Commercial and Merchant banks were also directed to grant more loans and advances to the preferred sectors of the economy.

The wide spread belief that commercial banks "borrow short" and "lend big" implies that sharp market interest rate increase may induce a significance number of bank failure. In investigating this view, Flannery (1989) develops a method of estimating average asset money and liability maturities for a sample of large money, banks in the United States. Regression models were tested to determine if rate fluctuation have a significant impact on banks profitability. The result of the study was negative, That is, those large banks have effectively edge themselves against market rate risk by assembling asset liabilities portfolios with similar average maturities. He however, observed that since October 1999, historically large short-term rate fluctuations have been accepted by policy makers in their efforts to control the monetary aggregates. The banking system's ability to these conditions have come as a surprise to many, but seems to indicate have effectively balanced their asset and liability to edge against interest rate charges.

Fareley and Simpson (1979) observed that prior to 1972, in the United States, requirement changed in respect to shifts in the location of demand deposits on banks located in the cities and countries. Then in November 1972, the 1 Reserve Board fundamentally altered the reserve requirement for all members

Table 1. Selected financial ratio of commercial banks (percent).

Year	Liquidity (%)	Cash reserve (%)	Loan-to-deposit (%)
	Ratio 1	Ratio 2	Ratio 3
1988	45.0	2.1	66.9
1989	40.3	2.9	80.4
1990	44.3	2.9	66.5
1991	38.6	2.9	59.8
1992	29.1	4.4	55.2
1993	42.2	6.0	42.9
1994	48.2	5.7	60.9
1995	33.1	5.8	73.3
1996	43.1	7.5	72.9
1997			
1st Quarter	42.2	6.4	65.5
2 TM Quarter	37.4	6.3	72.7
3rd Quarter	34.5	6.4	73.7
4th Quarter	40.2	7.8	76.6
1998			
1st Quarter	42.3	6.9	67.5
2nd Quarter	42.1	7.4	71.0
3rd Quarter	42.8	7.1	63.3
4th Quarter	46.8	8.3	74.4

Liquidity ratio is the ratio of total specified liquid assets to current liabilities. Cash reserve ratio is the ratio of cash reserve requirement to total current liabilities. Loan-to-deposit ratio is the ratio of total loans and advances to total current liabilities.

irrespective of location, and along with this new structure, required ratio amongst member Banks assumed greater variability. By comparing movements in the reserve ratios with the effective dates of the requirement changes, Farley and Simpson (1979) observed that large discrete changes in the reserve ratio resulted from board action affecting the level and structure of reserve requirements. In particular, the introduction of graduated requirement in 1972 resulted in substantial reduction in the average required reserve ratio on demand deposit. They noted that the required ratio has more variable following this action by the board.

Past studies on the structure of the market and bank performance have generally followed the industrial organization parade of relating export firm performance to us measures of market concentration. Graddy and Kyle (1979) are critical of this approach to the study of the interdependence among the bank performance measure. They are of the view that each variable must be considered as part of an II decision framework and not as a separate, isolated performance factor. By treating the banking firm as a multi-product, multi-factor, profit maximizing enterprise, they were also able to describe the simultaneous nature of

bank decision making process and to isolate the functions where market might influence bank's decision parameters. Their regression result offer 'tied support for the contentions that bank input and output decisions are independent. Furthermore, Anthony and Shen-Yuan (1991) in their study in Taiwan gave details of bank performance (SCP) hypothesis and efficiency hypothesis. The former elaborates how high concentration lowers the cost of collusion and earns monopoly rents while the latter emphasize on the operating efficiency of banks. These two theses were used to test the market structure and performance of industries before and after 1991 revision to the banking Act. Their findings were that prior to revision, it show that either SCP or efficiency hypothesis for exhibited quiet in Taiwan's banking industry, while after the act, there was efficiency in the Taiwan banking industry.

MATERIALS AND METHODS

This study employed three commercial banks in the Nigeria financial system. They include the established before 1980 that is, the first generation banks. This is because the new generation banks have not fully experienced the impact of government policies

Table 2. Net profit, lending rate, liquidity ratio, cash ratio and interest on savings computation from 1992-1999.

Year	Net profit (y)	Lending rate (X ₁)	Liquidity ratio (X ₂)	Cash reserve ratio (X ₃)	Interest on (X ₄)
1992	19,196	10.5	36.4	1.7	Savings
1993	22,101	17.5	46.5	1.4	9.5
1994	28,541	16.5	45.0	2.1	14.0
1995	33,854	26.8	40.3	2.9	14.4 -
19%	35,588	25.5	44.3	2.9	16.4
1997	42,924	20.01	38.6	2.9	18.8
1998	43,665	29.8	29.1	4.4	14.29
1999	67,864	36.09	42.2	6.0	16.1

Central Bank of Nigeria Statistical Bulletin.

Table 3. ANOVA^b.

Model	Sum of squares	Df	Mean squares	F	Sig
1 Regression	1.3E+11	4	3.3E +10	1.336	0.329 ^a
Residual	2.2E + 11	9	2.4E + 10		
Total	3.5E + 11	13			

Predictors: (Constant) interest rate, liquidity ratio, lending rate and cash ratio (%). Dependent variable: net profit.

Table 4. Coefficients of variables.

Model	Unstandardized coefficients		Standardized coefficients	T	Sig
	B	Std. error			
1 (Constant)	32263.7	428731.5		0.752	0.471
Lending Rate	-17112.2	14274.98	-0.644	-1.199	0.261
Liquidity Ratio	63119.71	39737.79	0.890	1.588	0.147
Cash ratio (%)	17733.18	266,76.11	0.411	0.665	0.523

Table 5. Model summary.

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	0.610 ^a	0.373	0.094	156151.0

and as at 1991, the registered commercial banks stood at 40 (CBN, 1992). The employed data run through 1992 to 1999 and this was collected through various issues of Central Bank of Nigeria statistical Bulletin and analysed with the use of regression model.

The regression model in explicit form is shown as follows:

$$Y = f(X_1, X_2, X_3, X_4)$$

Where Y = Net profit, X₁ = Lending rate, X₂ = Liquidity ratio, X₃ = Cash reserve ratio and X₄ = Interest rate (Figure 1 and 2).

RESULTS AND DISCUSSION

This model shows net profit (Y) as a function of the

lending rate (X₁), the liquidity ratio (X₂), cash reserve ratio (X₃) and interest rate on savings (X₄) which confirms to the a priori expectation. However, the value of R² which explain the percent of variation of the dependant variable (Y) that can be explained by the independent variation X₁, X₂, X₃, X₄ has a value of 0.373 which is 37.3%, it is a low percentage and this can be attributed to some missing variables in the model (Figure 4 and 5). This could be further explained with the regression (Figure 3) estimate where by an increase in interest rate will lead to a decrease in the lending rate while liquidity ratio and cash ratio were statistically significant to the profit of the selected banks.

Conclusion

In summary, the study showed that (i) the Nigerian monetary policy instruments conformed to the theoretical expectation, (ii) the rediscount rate charged by the Central Bank is too low, and even when high do not seriously deter commercial banks from lending, (iii) the impact of non-bank financial institution on the economy is such that they should be brought under the realm of monetary control, and (iv) interest rate apart from being rigidly fixed by the Central Bank also affect its effectiveness. Against this background, the following recommendations are suggested:

1. From the analysis carried out, it was discovered that the Nigerian monetary policy instruments conformed to the theoretical expectations.
2. Individual banks management should forward to CBN the annual plan of the bank estimated capacity to raise a volume of funds sufficient to meet anticipated needs.
3. The reduction of lending rates should be insisted to prevent the banks from folding up. The reversion to the modern technique of controlling liquidity in the economy should be encouraged and this should be strictly adhering to ensure economic stability.

If all these are effectively implemented, it will assist to reduce inflation, unemployment, and increase the GDP of the Nigerian economy.

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