

EFFECT OF GOVERNMENT POLICY ON PRICE STABILITY (1990-2015)

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ABSTRACT: *The study determines the effect of government policies in both monetary and fiscal policies on price stability in Nigeria. Secondary data were sourced from CBN statistical bulletin for GR, GE, CRR, MPR & CPI. The study using OLS technique discovered that the combination of both monetary and fiscal instruments impacted on consumer price index in Nigeria within the period of review and concludes that regardless of the mixed individual impacts of the variables; government policies were able to manage consumer price index to a considerable extent. Thus, recommends enhanced fiscal procedures and monetary policies to facilitate desired price stability.*

KEYWORD: Fiscal Policy, Monetary Policy, Price Stability

JEL Classification: O16, G280

INTRODUCTION

The Nigerian economy is a highly dynamic and hyper reactive economy. The prices of items easily react to policy implementations of government. Their reactions are easily felt with ordinary rumour even before implementations. The price fluctuations of items are often predetermined from policy anticipation. Price stability is a major concern for firms as it determine and affect their expenses and income streams. The maintenance of price stability is key macroeconomic challenges facing the Nigerian government in its economic endeavours (Bayo, 2006). According to CBN (2012), economic agents such as firms, households and government are often worried about the impact of increasing prices because of its costs on their incomes and the general welfare of the people. This however, confirms the assertion of Mishkin (2007), who states that domestic price rise and fall undermines the function of money as a store of value and frustrates investments and development in an economy.

The Nigerian economic system is characterized with high and great developmental opportunities which have been subjected to retrogressive slope (Ubi, Effion & Eyo, 2012). The retrogression has been due to mostly lack of efficient government policies that can transform the economic development of the nation. The Nigerian economic system faces challenges integrating poor macroeconomic plans, poor coordination of fiscal and monetary policies by the government and its agency and corruption. The problem of misappropriations of scarce fiscal resources, high domestic and external debt profiles, corruption in high places, lack of accountability and transparency also affect price stability in Nigeria. These inadequacies have actually resulted to low level of price stability. The political instability also contributed negatively to price instability thereby slowing the developmental agenda of Nigerian economy.

Government exerts a persistent influence on the macroeconomic variables of an economy (Hodrick, 1980). Government policy plays a significant role in the attainment of price stability.

This policy can either be monetary policy or fiscal policy or both. The monetary policy is controlled by government through its agent in the Central Bank; according to CBN (2006) the contribution that monetary policy makers make to sustainable growth is the maintenance of price stability, while the fiscal policy is direct implementations of government via expenditure controls and taxations. Poor monetary and fiscal policy formulation and execution has made Nigeria to experience a long record of appalling administration, poor institutional and infrastructural support, which hindered its capacity to perform adequately and achieve price stability. However, the major policies in both monetary and fiscal policies have over time faced high level of contradicting impact with regards to economic and price stability over time. For example, the objectives of price stability often conflicts with the objectives of interest rate stability. The effectiveness of monetary policy in Nigeria has been previously undermined by fiscal supremacy as well as persistent liquidity extension (Adeeko, 1998). Given the nature of the Nigerian economy, very little has been established on the impact of government policies on price stability. Thus, the implementation function adopted in this study, therefore combines the monetarist instrument and fiscal instrument approaches. Hence, this study intends to determine how government policies (both fiscal and monetary policies) will influence price stability (macro-economic stabilization) in a developing economy.

Theoretical Framework

There are different theories as to financing and economic direction in the theory, but the study however narrowed its theory to Keynesian theory (school of thought) by John Maynard Keynes (1883–1946). *The central tenet of this school of thought is that government intervention can stabilize the economy* (Sarwat, Mahmud and Papageorgiou, 2014). The Keynesian school of thought postulates a positive relationship between deficit financing and investment (Omitogun and Ayinla, 2007). This school of thought sees fiscal policy as a tool of overcoming fluctuations in the economy. According to Tchokote (2001), this school regards deficit financing as an important tool to achieve a level of aggregate demand consistent with full employment. When debt is used to finance government expenditures, consumers will increase, given that resources are not fully utilized, crowding-out of private investments by high interest rates would not occur. The positive Keynesian schools of thought on the possible effect of fiscal deficits on economic activity have been challenged by the Neo-classical school of thought on the premise that the former school ignores the significance of how fiscal deficits are financed. On the effect of these policy variables, the classical school postulates that the manner in which deficits are financed is capable of influencing the level of consumption and investment and by extension affect price stability.

According to Adefeso and Mobolaji (2011), monetarist believes that monetary policy exact greater impact on economic activity as sharp change in the stock of money affects output and growth i.e., the stock of money must increase swiftly for central bank to promote economic growth. They are also of the opinion that increase government spending would crowd out private sector and outweigh any short-term benefits of an expansionary fiscal policy.

The study employ the theory used by Okwu, Obiakor, Falaiye, and Owolabi, (2011) states that: exogenous changes in the money stock lead to equivalent percentage changes in the overall price level under conditions of stable money demand; and that if cash (money supply) forms one-half of all transactions in the economy then a doubling of the amount of cash in the economy must result eventually, *ceteris paribus*, in the prices of all goods traded within the economy increasing twofold. These responses of prices to money changes (availability of funds

in the economy) then suggest a testable hypothesis about monetary and fiscal policies on price stability.

Empirical Review

The essence of controlling money supply is because its increase may raise the level of inflation, and its reduction can bring down the level of inflation in the economy. Inflation is considered an enemy to some economic agents because of some obvious reasons; first, high inflation undermines the capacity of the economy to generate gains in output, incomes and employment. Secondly, for those with fixed income, it wears away the value of their investments income and social well-being. Thirdly, it encourages high speculative deeds in the financial markets relative to the investments that boost production activities, and enables firms to compete both domestically and internationally (Hodrick, 1980). Uncontrolled price increases make it difficult for economic agents to effectively plan and efficiently deploy their resources to achieve immediate and future economic goals and projection (CBN, 2012).

Thus, monetary and price stability is the central objective of the Central Bank of Nigeria. This function is executed through monetary policy (CBN, 2012). The fiscal engagements of government enhance and stabilize the position of price stability.

Contrasting opinion exist on which of the two policies exerts greater influence on economic growth activity (Ajisafe & Folorunsho, 2002). Fiscal policy is thought to stifle economic growth by distorting the effect of tax and inefficient government spending, while monetary policy seek to maintain desired price stability through achieving required inflation rate, interest rate and cost of money supply. However, Balogun (2007) using simultaneous equation models to test the hypothesis of monetary policy ineffectiveness in Nigeria discovered that, rather than promote growth; while domestic monetary policy was the source of stagnation and persistent inflation. According to Ajisafe and Folorunso (2002) in their study of effectiveness of monetary and fiscal policy on economic activity in Nigeria using co-integration and error correction modelling techniques and annual series for the period 1970 to 1998 shows that monetary rather than fiscal policy exerts a greater impact on economic activity in Nigeria and concluded that emphasis on fiscal action by the government has led to greater distortion in the Nigerian economy.

In the study of Okwo, Eze and Nwoha (2012), on the effect of monetary policy outcomes on macroeconomic stability in Nigeria from 1985 to 2010; their findings suggest that monetary policy as a policy option may have been inactive in influencing price stability.

Amassoma, Nwosa and Olaiya (2011) examined the effect of monetary policy on macroeconomic variables in Nigeria for the period 1986 to 2009. Adopting a simplified Ordinary Least Squared technique, they found out that monetary policy had a significant effect on exchange rate and money supply. In addition, they observed that monetary policy have an insignificant influence on price instability. Onyeiwu (2012) examines the impact of monetary policy on the Nigerian economy using the Ordinary Least Squares Method to analyse data covering 1981 and 2008. The result of the analysis shows that monetary policy presented by money supply exerts a positive impact on Gross Domestic Product growth and Balance of Payment but negative impact on rate of inflation.

In the study of the relationship between government expenditure and Nigerian economic growth; Abduliah (2000) discovered that the size of government expenditure is very paramount

in determining the performance of the economy. He recommends that government should increase budgetary provision for infrastructure, social and economic activities to accelerate economic growth. In line with Abduliah (2000); Dar-Atui and Amirkhalkhali (2002) in their study of endogenous growth model of fiscal policy and economic growth conclude that government expenditure and income is very crucial in predicting future economic growth. The study of Khosravi and Karimi (2010) conclusively maintains that appropriate fiscal measures in particular circumstances can be used to stimulate economic development and growth.

Looking at the impact of Monetary and Fiscal policies on economic activities in Bangladesh, Chowdhury (1986) was of the opinion that fiscal rather than monetary action had greater influence on economic activities. Other arguments in favour of Fiscal policies over monetary policies include Ebimobowei (2010), Oyinlola (1993) and Mansuori (2008). While the argument of greater influence of monetary policies over the fiscal policies were made by Ajayi (1974),

In promoting overall citizens' welfare, monetary and fiscal policies are paramount tools used by government and its agencies; according to Familoni (1989), before monetary policy can produce desired result as maintained by the classical economist, highly integrated and monetized economy and regular information network system must be available. However, the Nigerian economy lacks these fundamentals, flexibilities (in respect to interest rate, treasury certificates, etc.) which could have aided a much more effective use of monetary policy. Familoni thus denounced the classical preference of monetary policy over fiscal policy on the basis of their empirical evidence and predicted that it would only work for a developed economy and suggest where necessary the mixture of both policies for better performance in a developing economy like Nigeria. Ubi, Lionel and Eyo (2012) concluded by stating that appropriate fine tuning of fiscal and monetary policies are capable of achieving industrial growth. This is line with the separate study of Odozi (1992) and Andabai (2008) who contended that the impact of monetary policy may be assessed in terms of the behaviors of the intermediate targets in terms of output growth and price stability. Accordingly, the effectiveness of monetary policy on regulating the money supply depends to a large extent on government fiscal deficit. They further asserted that whenever fiscal policy was moderately expansionary, money supply growth usually falls in line with the goal of monetary policy. Thus, the achievement of financial sector stability is fundamental to the maintenance of macro-economic stability

METHODOLOGY

Based on the empirical review made Price stability is specified as proxy for economic price level and can be explained by the government expenditure in recurrent, capital, monetary policy rate and cash reserve ratio. The model thus, is specified in its functional form as follows:

$$\text{CPI} = f(\log(\text{FGNRE}), \log(\text{FGNCE}), \log(\text{MPR}), \log(\text{CRR})) \dots\dots\dots (1)$$

The variables are defined as follows: CPI – Consumer Price Index, GRE – Government Recurrent Expenditure, GCE – Government Capital Expenditure, MPR – Monetary Policy Rate, CRR – Cash Reserve Ratio and Log – Logging of variable.

The model can be restated as:

$$CPI = a_0 + b_1 \log(GRE) + b_2 \log(GCE) + b_3 \log(MPR) + b_4 \log(CRR) + \mu \dots\dots\dots (2)$$

Parameters for Estimation/A *Priori* Expectation

The following linear equation is obtained from the specified model

$$CPI_t = b_0 + b_1 GRE_t + b_2 GCE_t + b_3 MPR_t + b_4 CRR_t + U_{it} \dots\dots\dots (3)$$

b_0, b_1, b_2, b_3 and b_4 are parameters to be estimated while U_1 is the error term. It was expected that increased/higher $b_1 GRE, b_2 GCE, b_3 MPR$ and $b_4 CRR$ result in price stability management within the period under review.

Thus, the a priori expectation becomes;

$$b_1 < 0 \quad b_2 < 0 \quad b_3 > 0 \quad b_4 > 0$$

Based on a *priori expectation*, the signs of b_1, b_2 are expected to be negative while the sign of b_3 and b_4 are expected to be positive. This is so because, Price Instabilities is expected to increase as fiscal expenditures (deficits) increases, while monetary policy (MPR) and Cash Reserve ratio (CRR) reduces. The normal distribution of the error term is the key assumption of the model.

Presentations and Analysis of Result

Table i: OLS regression result: Dependent variable is CPI

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|--------------------|-------------|----------|
| LOG(CRR) | -16.36488 | 6.026297 | -2.715578 | 0.0130 |
| LOG(MPR) | -38.52248 | 33.04491 | -1.165761 | 0.2568 |
| LOG(GCE) | 7.500229 | 11.03394 | 0.679741 | 0.5041 |
| LOG(GRE) | 30.46696 | 7.897780 | 3.857662 | 0.0009 |
| C | -4.408586 | 109.1118 | -0.040404 | 0.9682 |
| R-squared | 0.891966 | F-statistic | | 43.34588 |
| Adjusted R-squared | 0.871388 | Durbin-Watson stat | | 1.357544 |

Source: Researchers' computation using E-views 6.0

Estimation Equation:

$$CPI = -16.3648824661 * LOG(CRR) - 38.5224801649 * LOG(MPR) + 7.50022882126 * LOG(GCE) + 30.4669642654 * LOG(GRE) - 4.40858637906$$

The OLS regression result above shows the effect of CRR, MPR, GCE and GRE on CPI. The result reveal that the coefficient of determination (R^2) = 0.8919 is high and suggests strongly that the variation in CPI was accounted for up to 89.19% by the explanatory variables of CRR, MPR, GCE and GRE. The F-ratio of 43.346 indicates that the overall model is statistically significant even at the 1% level. The DW statistic is 1.358, which is less than 2 which indicates that there is presence of serial correlation in the model. This will facilitated further test using Breusch-Godfrey serial correlation test. The result of the study also showed that if CRR increase by 1% the dependent variable Y will reduce by -16.365%, while a 1% increase in MPR will cause Y to reduce by -38.523%; a 1% increase in GCE and GRE will cause Y to

increase by 7.500 and 30.467 respectively. The output and signs are in line with the a-priori expectation for the study. The probability output for both MPR and GCE are not statistically significant; however, the probability output for both CRR and GRE in 0.0130 and 0.0009 are statistically significant with high and well signed t-values in -2.715578 and 3.857662 respectively and confirm with the reliability of the beta coefficient of the model for predictive purposes.

Serial Autocorrelation

Table ii: Result of the test for Serial Correlation

| Breusch-Godfrey Serial Correlation LM Test: | | | |
|---|----------|---------------------|--------|
| F-statistic | 1.369833 | Prob. F(2,19) | 0.2781 |
| Obs*R-squared | 3.276559 | Prob. Chi-Square(2) | 0.1943 |

Source: Researchers' computation using E-views 6.0

The result of the serial correlation shows that the probability value is 0.2781 which is greater than 0.05 implying that we accept H_0 and reject H_1 . We then conclude that there is no serial autocorrelation in the model and that the model is appropriate.

DISCUSSION OF FINDINGS

From the discoveries in the research work, the input of the fiscal recurrent expenditure on the price stability was significant as a high t-test result shows that recurrent capital expenditure was able to help facilitate price stability. However, the capital expenditure of government was unable to facilitate price stability within the period under review in Nigeria. The inability of the capital expenditure of government to impact was as a result of inflating the price of projects, capital flight, corruption e.t.c. which resulted in low prices in the economy and watered down the impact of budgeted funds on economic growth and price stability. The MPR however complied with the a-priori expectation but was unable to impact price stability significantly; while the CRR showed both anticipated sign and significantly impacted price stability. The overall study proves that government policies combined in both monetary tools and government fiscal tools are able to facilitate desired price stability in Nigeria.

CONCLUSION AND RECOMMENDATION

The study thus, concludes that government policy instruments harmonized together influenced price stability significantly within the period under study. This finding is supported by the findings of Bose, Haque and Osborn (2003), who found that government capital expenditures is positively and significantly correlated with economic growth; the findings of Argbeyen's (2007) also supported the outcome of the study by stating that Government Capital and public investment expenditures were significantly and positively associated with economic growth. The findings of the study Adefeso and Mobolaji (2010) were consistent with earlier empirical findings which revealed that productive government expenditure has positive effect on price stability. This result is also consistent with the Keynesian interest rate view in Friedman (1956)

and Friedman and Schwartz (1963) which argue that the price level reflects money market conditions and this is supported by Saale (2013) by stating that monetary policy has a significant impact on consumer prices in Nigeria.

Hence, the Nigerian government should increase further capital expenditure so as to improve economically viable investment to create and develop individual income through multiplier effect of employment and self-employment created via efficient government capital investments (expenditures) output. Fiscal policies should emphasize re-direction of Government Recurrent, Capital and Budgetary Expenditure to productive channels in industrial and agricultural industries in the economy so as to increase output and facilitate desired price stability. Monetary policy alone is incompetent of controlling inflation. Thus, fiscal procedures should be enhanced further in a mix with monetary policies to facilitate desired price stability.

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