

## Policy Coordination and Outcomes: Theoretical Perspectives and Empirical Evidence in Nigeria

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**Abstract:** The paper discusses the fiscal-monetary coordination and the resultant outcomes in macroeconomic aggregates from theoretical and empirical perspectives. The game-theoretic technique was also used to analyse the policy mix conundrum vis-a-vis the fiscal-monetary policies interaction and how that translates into optimal outcomes in an economy. However, the situation of making or forcing monetary policy to be subordinate to fiscal policy may still not generate socially optimal results. This is not far-fetched as the payoffs in the game-theoretic model suggest the presence of minimal coordination problem but high policy conflict even if both authorities are disciplined. Coordination problem and goal conflict seem to be non-existent - when both fiscal and monetary policy blocks are committed and responsible in their choices. Further analyses indicate that the policy mix of both fiscal and monetary authorities for inflation seemed complementary. Inflation responded negatively to the shock of debt in the short run. However, in the medium term, the shock becomes positive and later returns to the initial state. The study suggests that policy designs in Nigeria must harmonise both stabilisation and growth objectives to have optimal outcomes.

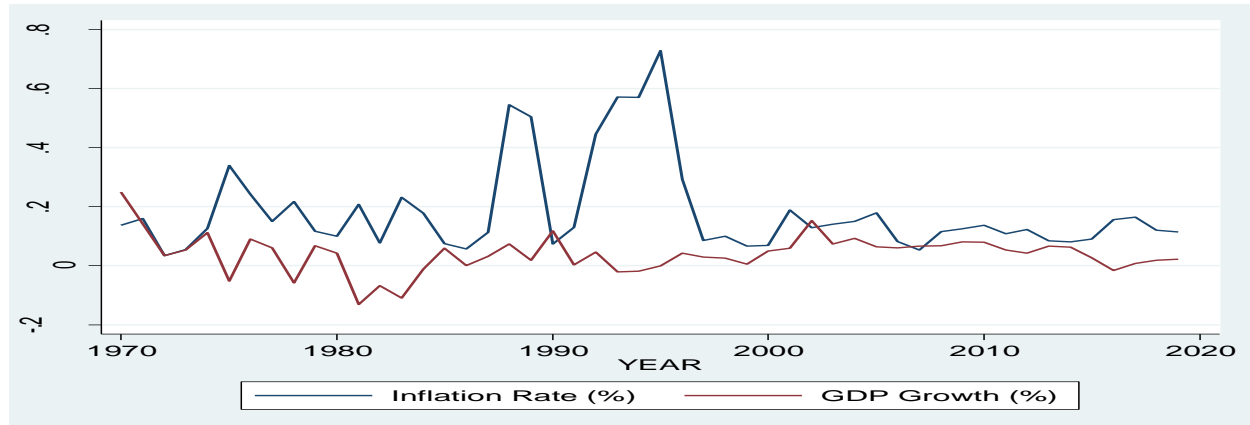
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### 1. Introduction

Achieving optimal outcomes in economic management is linked to the relationship between fiscal and monetary policy, among other things. The issue of appropriate designs of fiscal and monetary policy is an old debate that is still very relevant today as it was when it began. The 2008-2009 global financial crises and the attendant economic recessions have further reinforced unprecedented expectations on economic policy designs, and more importantly the fiscal-monetary interactions. Both the central banks and fiscal authorities, have the preoccupation to appropriately design suitable policies in a way to secure high, sustained and inclusive economic growth, and a low, stable inflation and other objectives. In economic literature, the overall consequences of instability include high and volatile price level, high unemployment, low output and productivity, compounding public debt, huge budget deficit a growing ratio of public debt to gross domestic product and a host of others. These effects, without doubt, imply loss of welfare and therefore necessitate efforts geared at smoothening the cycles. From advanced to emerging economies as well as the developing ones, stabilisation efforts have broadly involved the joint formulation of fiscal and monetary policy at least, and their mix has always been at varying degrees. Undoubtedly, low inflation and price stability would encourage foreign capital inflow, production cost reduction, minimise uncertainties and so on. The monetary authority in Nigeria has been pre-occupied with the pursuit of low inflation since the mid-1970s.

When a double-digit inflation rate was first observed the economic distress of the late 1970s and early 1980s, due to oil glut, however, did not help the matter. Rather, in addition to other factors, the inflation rate went to up as high as 75 per cent in 1995 as shown in Figure 1, despite the introduction of Structural Adjustment Programmes (SAP) in July 1986. Ever since, achieving low (and stable) inflation rate has become the main goal of the Central Bank of Nigeria (Central Bank of Nigeria, 2012 and 2018). Since 2002, the Central Bank of Nigeria (CBN) has adopted a medium-term monetary policy strategy to stabilise prices, yet the rate of inflation is still considered as relatively high, standing at over 10 per cent (see CBN's Statistical Bulletin, 2018). The seminal work of Sargent and Wallace (1981) and subsequent studies including Dixit and Lambertini (2001) on policy effectiveness argue in support of the appropriate fiscal policy to complement monetary policy to have optimal outcomes in an economy. Understanding the interactions among policy blocks, therefore, is not only essential to mitigate fluctuations that do or may arise from shocks but also to position the economy for future stabilisation challenges. In Nigeria, empirical evidence reveals that fiscal dominance and public sector 'indiscipline' contribute to sub-optimal macroeconomic outcomes. Hence, an examination of the nature of policy interactions becomes pertinent, for a several reasons.

Figure 1: Nigeria's Inflation and Output Performance



First, the Nigerian economy has large public sector size which impacts on the market regularly. Optimal performance of the government sector may enhance the overall efficiency of the economy. Second, an activist public sector is required for accelerated growth and development in Nigeria. Third and last, Nigeria is a small open economy which requires robust domestic macroeconomic policy to mitigate the effects of internal and external shocks. The rest of the paper is organized as follows: following this exordium is Section 2 which considers the research issue while Section 3 explores economic institutions and policy coordination. Section 4 focuses on economic institutions and policymaking in Nigeria, Section 5 provides the econometric summary on fiscal and monetary policy interaction while Section 6 concludes the study.

### The Issue

In the last five decades, the questions of whether government budget (deficits) are inflationary and/or why central bank authorities worry about government budgets have been arguably found to depend on how the monetary and fiscal policies interact. Hence, having stable, low inflation requires proper coordination of fiscal cum monetary policies in every economic management endeavour. In lending empirical support to this matter, Muscatelli et al. (2003), conjectured that fiscal policy, in particular, can be welfare-reducing, if both fiscal and monetary policy rules are in inertia and not coordinated. In other words, government effort at improving welfare could be counter-productive when fiscal and monetary policies are not coordinated. Achieving single-digit inflation with high, sustained growth is one cardinal objective of central banks. Notwithstanding, the degree of central bank's independence in performing its functions, there is a high level of interdependence between the monetary authorities and fiscal actions. Concerning effectiveness, optimality and robustness of the monetary policy vis-a-vis its statutory goals, there exists a large quantum of theoretical and empirical studies (for example Taylor, 1999; Sims, 1994, 2007; Gali and Gertler, 1999; Gali et al., 2007). Despite the volume of literature which shows the positive relationship between central bank independence and the effectiveness of the monetary policy.

It should, however, be noted that monetary policy is not and can never be isolated from other economic policies (including fiscal policy) in stabilising and improving the economy. Conventional practice reveals that both fiscal and monetary policies are mostly in the control of two different authorities, yet the two policies are interdependent when employed to achieve national economic goals. Therefore, any shock from either policy would necessarily influence another. As a result of this, there is the possibility of tension between what each player would do in smoothening, for instance, the business cycles. This thus establishes the fact that it is imperative to pursue consistent monetary-fiscal policy mix, and coordinate these policies to avoid (or minimise) tensions. Several theoretical issues have attributed the different pace of economic development to the quality of existing institutions in different economies. In Nigeria, like many developing economies, poor (or lack of) coordination, as well as inconsistent policies have been identified to be key factors stunting the pace of economic growth and development. The objective of the study is two-fold. First is the examination of the interdependence between fiscal and monetary policies. Second and last, the roles of the CBN, Federal Ministry of Finance and National Planning Commission in macroeconomic policymaking are discussed.

## 2. Institutions and Policy Coordination

Both fiscal and monetary policies are designed and implemented through various organs of government. These organs are regarded as economic institutions and an appraisal of their roles is imperative. Also, because policy coordination is the only tool for maximising policy objectives, this section provides a discussion on related concepts and other issues on the role of institutions in policy coordination using the Nigerian economic environment. Discourse on the relationship between institutions and economic development in various countries has gained increased attention, notwithstanding its omission in the modern neoclassical economics. As the refinement of theories of institutions continues, so also is the definition of an institution as a term.

**Economic Institutions and its implications for Development:** There have been contentions as to the appropriate definition of the term 'Institution'. The reasons for the debate are not far-fetched. Institution as a concept is applicable in all human engagements and fields of endeavours. Thus, various definitions or descriptions of institution tend to reflect its usage in different contexts. North (1989) defines institutions as rules, enforcement, characteristics of rules and norms of behaviour that structure repeated human interaction. It, therefore, suggests that an institution could be formal (such as rule or organisation) and informal (for example, norm). Specifically, an economic institution could be defined as an organisation that provides a service or product that is deemed central to a nation's economy. Economic institutions determine how an economy is allowed to develop and function to achieve stability and growth. Its main functions include determination and protection of rights, enabling and facilitation of transactions as well as giving allowance to economic actors to organise and cooperate. The formal economic institutions are, thus, the ones which help in guiding economic decisions and policies that are established by the national government. From the foregoing, institutions are regarded simply both as rules and organisations. As a rule, it helps to stabilise expectations and to condition and modify the behaviour of individuals and groups to enhance the predictability of their actions.

As an organisation, it facilitates and makes decisions to achieve national objectives. Put succinctly, concerning policymaking, an economic institution refers to any player in an economy who serves to aid the efficiency of the market system. In this article, core macroeconomic policy institutions in Nigeria include the Central Bank of Nigeria, National Planning Commission, and the Federal Ministry of Finance. The definition of economic institutions, in this study, sees it as rules and organisations that are established to influence actions and reactions of economic agents and are set aside to execute specific tasks to effect desired changes in the economy. Extant studies (for example North, 1989; Acemoglu, Johnson and Robinson, 2005; and Chang, 2006) reported that institutions play significant roles in shaping the growth and development of nations. The key areas where institutions influence development processes include changes in transaction costs; property right and the returns to investment; the power of expropriation; as well as fostering cooperation and social capital. La Porta, Lopez-de-Salinas and Schleifer (2008) also argued that economic, cultural and political considerations are among the bases for the whole essence of the existence of institutions in a society. They postulated a political theory of policy analysis that relates institutions and development, and implicitly explains inefficient policy outcomes to political leanings and patronages. This seems to be the case in many multi-ethnic, multi-religious and multi-tribal societies such as Nigeria.

**Policy Coordination: Definition and Nigeria's Example:** Policy coordination can be described as a set of arrangements and activities aimed at the identification of a unified framework for fiscal and monetary policies, and the introduction of commitments on policy decisions at national or super-national level (Pisani-Ferry, 2002). Another form of definition, credited to Fatas and Mihov (2003), is that coordination must be understood as an agreement to enforce fiscal discipline among the fiscal authorities to avoid any spill over caused by irresponsible policies. These definitions underscore the importance of agreement between various policy authorities. Furthermore, policies are coordinated when all organs responsible for policy decisions in an economy have an avenue through which the policymaking process is centralised. Coordination of policy does not necessarily require that monetary authority, for instance, would have to wait for the fiscal block before he prepares his goals, targets and instruments. Rather, policy coordination entails having a common aim, of minimising to the barest minimum, the trade-offs involved in policy implementation. Two crucial motivations for coordination in policy decisions include fiscal dominance as well as monetary dominance.

Fiscal dominance occurs when current and future values of government budget variables are set independently by the fiscal authority, stating the share of the revenue from bond and seignior age expected to be facilitated by the monetary authority. The various implications presented by either fiscal or monetary dominance necessitate policy coordination, and according to Sargent and Wallace (1981) as well as Arestis (2012), policy outcomes would be inefficient without coordination. To achieve efficient macroeconomic objectives, policymakers must coordinate their activities (Sargent and Wallace, 1981). Therefore, a particular policy authority would achieve its objective(s) given its constraints if there is proper coordination between all the authorities involved in policymaking. Specifically, for instance, prolong and unchecked fiscal profligacy would put pressure on price stability function of the central bank, notwithstanding the kind of monetary framework it may adopt. In a similar vein, a tight and non-accommodating monetary regime, expressed in form of high-interest rate, may speed up the fiscal authority in achieving its highlighted motives for expansionary spending, at the least. Thus, the extent to which either policymaker will go at achieving its goal depends on how both fiscal and monetary policies are conducted. Generally, government policies such as privatisation and trade liberalisation are designed to allow for private economic agents to operate.

But lack of coordination has been identified as one principal cause of inefficiencies that characterised the Nigerian economy. This is because the procedures involved in policy decisions require contributions from various stakeholders in and within an economy. Most of the contributions into policy formulation are transmitted through relevant government institutions that are saddled with the responsibility of putting together sets of measures for efficient management of the economy. The mandates of Nigeria's economic bodies include facilitation and coordination of policy interventions in one form or another. Several inefficient macroeconomic outcomes such as wide exchange rate fluctuations, high unemployment level, unstable price levels and a host of others have been found to have positive correlations with poor or improper (or lack of) coordination in Nigeria (Panico and Suarez, 2008; Iyeli and Azubuike, 2012). The main task of economic management is jointly undertaken, at least, by both the fiscal and monetary authorities in most cases. In Nigeria, macroeconomic policymaking involves, among others, the Federal Ministry of Finance; Central Bank of Nigeria; National Planning Commission; Debt Management Office; and Budget Office of the Federation with each attending to specific aspects of policy decisions, as contained in the various Acts that established them. To this end, this essay also examines the roles of various institutions in Nigeria's policy design and assesses the macroeconomic performance of the economy concerning the policy choices.

**Rationale for Fiscal-Monetary Policy Coordination:** The overall goal of economic policy is to enhance the living standard of citizens through the pursuance of low inflation and sustained growth, using mainly the instrumentality of fiscal and monetary policy. The implication is that the use of fiscal and monetary policy instruments often creates conflicts, more importantly when the two instruments share no identical objectives. Therefore, a need for a sufficient coordination mechanism between these authorities has emerged as a necessity to achieve the desired goals of economic policy. Interdependence between fiscal and monetary policy and its effects on the economy as a whole gives rise to the reason why the two policies need to be coordinated. The need for fiscal and monetary policy coordination has been recognised as far as the golden era of the Keynesian theories. Paul Samuelson underscores this fact by stating: There is no legitimate clash between Treasury and Central Bank policy: they must be unified or co-ordinated based on the over-all stabilisation needs of the economy. It is unthinkable that these two great agencies could ever be divorced in functions or permitted to work at cross purposes.

In particular, it is nonsense to believe, as many proponents of monetary policy used to argue, that fiscal policy has for its goal stabilisation of employment and reduction of unemployment, while monetary policy has for its goal the stabilisation of prices. In comparison with fiscal policy, monetary policy has no differential effect on prices rather than on output. I have already asserted that the Treasury and Central Bank have to be co-ordinated in the interests of national stability, so I am little interested in the division of labour between them (Samuelson, 1956, pp 14-15 cited in Panico and Suarez, 2008). Various theoretical models that attempt to identify factors that call for fiscal and monetary policy coordination suggest five key areas that have given rise to the coordination of fiscal and monetary policy. These include; the prevalence of fiscal indiscipline, the perverse effects of inflation conservatism of the monetary authorities on the fiscal objectives and absence of commitment to fiscal discretion and the monetary rule. Others are the existence of decentralised fiscal authorities and the aggregate demand inflation effects of policy interactions.

Taking into account the importance of these factors, economic policymaking would only be meaningful when proper coordination is fashioned out. A schematic representation of possible scenarios in fiscal-monetary interaction in a game-theoretic approach is shown in Figure 2. The description of the policy authorities are as follows: the fiscal policymaker can either be Responsible or Irresponsible whereas the monetary authorities can either be committed or Non-Committed. Whenever a fiscal authority chooses to be responsible and monetary authority gets committed, they are regarded as being disciplined {D}. An irresponsible choice by the fiscal policymakers and a non-commitment choice by the central bank connotes Indiscipline {I}. A disciplined monetary authority seeks to have low inflation, but it becomes indiscipline when he overshoots the inflation target, whereas the Government, representing the fiscal authorities, is said to be disciplined when he runs a balanced budget while a fiscal deficit decision qualifies him to be regarded as indiscipline. The 'D' option is socially optimal and desirable but the 'I' is socially inferior and not desirable. The panel indicates that an act of discipline by a committed central bank and a responsible government has rewards in terms of zero coordination problem and assurance of socially optimal outcomes. In sum, in terms of efficient policy outcomes, it pays best for both authorities to be disciplined, that is, to target low inflation within a balanced budget framework, since there is no coordination problem associated with it (Franta et al., 2011).

**Figure 2: Games Pay-Offs**

GOVERNMENT	Responsible	Ambitious
<b>Responsible</b>	Symbiosis	Tug-of-war Battle of the sexes Neglect
<b>Ambitious</b>	Indeterminate	Games of chicken Prisoners dilemma Battle of the sexes Neglect

**Source:** Franta et al. (2011).

In Figure 2, Pure Nash lists all possible equilibriums if each policy decision-maker chooses either discipline or indiscipline option that he considers efficient for him. The mixed Nash indicates efficient outcome but more than one possible option in each scenario. Moreover, the columns 4, 5 and 6 indicate the implications of each scenario for policymaking, representing the presence of a problem in coordination, conflict in policy goals and the possibility of attaining efficient or socially optimal outcomes within an economy respectively. A game-theoretic description of the interactions between the central bank and the government is presented in Figures 1 and 2. However unlike in the Franta et al. (2011), the pay-offs are expressed in terms of the policy objectives and are redefined for each authority. The Central Bank of Nigeria is disciplined if it commits to its stated single-digit inflation target and naira exchange rate stability, but becomes indiscipline if it does not.

The government, on the other hand, is disciplined if it is fiscally responsible for attaining budget deficit of less than four per cent of the gross domestic product and high growth rate (see Figure 3). In the framework, a subservient monetary policy is found (as in Panel 1 of Figure 3). The scheme reflects a situation where the government (such as under the military administration) subjects monetary decisions to the preference of the Head of State or his appointed Minister of Finance. The second (Panel 2 of Figure 3) reflects the case where the Central Bank of Nigeria enjoys autonomy and is allowed to influence monetary decisions by rule. The payoffs of choices either to be committed or not on the part of the monetary authorities and be responsible or irresponsible by the fiscal policymakers are indicated by the macroeconomic outcomes in each quadrant of Figure 3. Both authorities should choose to be disciplined since the most efficient economic outcomes are guaranteed.

**Figure 3: Possible Outcomes of Policy Games**

Scenario	Pure Nash	Mixed Nash	Coordination Problem	Policy Conflict	Social Outcomes	Optimal
Symbiosis	(D,D)	No	No	No	Yes	
Pure coordination	(D,D)(I, I)	Yes	Yes	No	Likely	
Battle of the sexes	(D,D)(I, I)	Yes	Yes	Yes	Uncertain	
Game of chicken	(D, I)(I, D)	Yes	Yes	Yes	At most one policy	
Tug-of-war	(D, I)	No	No	Yes	Only monetary policy	
Prisoners dilemma	(I, I)	No	Yes	No	No	
Neglect	(I, I)	No	No	No	No	

**Source:** Franta et al. (2011).

**Panel 1: Fiscal Authorities Subordinate Monetary Policy**

<b>Government</b>		
	<b>Fiscally Responsible</b>	<b>Fiscally Irresponsible</b>
<b>Central Bank</b>		
<i>Committal</i>	Moderate inflation Low/high growth rate	Double-digit inflation Negative or low Growth Stagflation
<i>Non-Committal</i>	Inflationary growth rate Low growth	Explosive public debt Debt crisis Weak currency

**Source:** Author's construct.

**Panel 2: Fiscal and Monetary Policies are Coordinated**

<b>Government</b>		
	<b>Fiscally Responsible</b>	<b>Fiscally Irresponsible</b>
<b>Central Bank</b>		
<i>Committal</i>	Single-digit inflation Stable exchange rate High growth rate	High inflation High deficit and Unemployment Low growth rate
<i>Non-Committal</i>	Inflationary growth rate	Debt crisis High debt burden Jumping inflation

**Source:** Author's construct.

However, the situation of making or forcing monetary policy to be subordinate to fiscal policy may still not generate socially optimal results. Moreover, the payoffs in Figures 2 and 3 further suggests the presence of minimal coordination problem but high policy conflict even if both authorities are disciplined. However, coordination problem and goal conflict seem to be non-existent in Figure 2 when both policy blocks are committed and responsible in their respective choices.

### 3. Economic Institutions and Policymaking

Economic policymaking entails a lot of processes and procedures which necessitate participation of some public bodies, private sector and other stakeholders, including the civil societies. An overview of the origin, functions, and management composition of main government agencies that participate in the public policy process in Nigeria is presented to show their roles in policy formulation in Nigeria.

**Central Bank of Nigeria and Monetary Management:** Monetary policies are set of measures to control credit and money supply to achieve specified macroeconomic objectives which include low inflation or price stability, high and sustained economic growth, a favourable balance of payment etc. The conduct of monetary management is assigned to the central bank. Monetary policy derives its relevance from the fact that it influences aggregate spending, which in turn affects employment, investment and living standards. In Nigeria, the Central Bank of Nigeria (CBN) manages the monetary policy and works to attain its policy goals. Although the monetary policy decisions rest with the CBN, the overall outcomes are products of various interrelated activities of many organs of government.

**Monetary Policy Process, Formulation and Implementation:** Like most economies, monetary policy design in Nigeria has largely reflected the stage of economic development in general and the level of financial development in particular. The CBN's mandate of ensuring price stability and other goals has been pursued using monetary targeting framework, especially in the last three decades and its main goal has been to attain low (single-digit) inflation (see CBN Monetary Policy Review, 2010, 2012 and Annual Report, 2018). The formulation and design of monetary policy lie with the Monetary Policy Committee (MPC). The membership of the MPC comprises twelve members, including the Governor of the CBN as the presiding officer as well as three members appointed by the President of the Federal Republic of Nigeria. Other members are all the four Deputy Governors of the CBN, two non-executive members who are also among the Directors of the Banks' Board as well as two members appointed by the Governor of the CBN. The MPC reviews both the domestic and external conditions, such as foreign exchange market supply and demand, to make realistic decisions. Based on the liquidity conditions in the financial system, as may have been captured by the available data, the MPC formulates monetary policy actions to be taken in the immediate period. According to Ezema (2007), the CBN would consider the development in the economy over a period, articulates the main challenges for achieving its objective of price stability and design a mechanism, which is essentially based on a monetary programme which sets out future trends.

In macroeconomic aggregates to guide its monetary policy implementation the review proceeds from comparing the actual macroeconomic aggregates with the projections. Among the measures of the MPC's decisions is the Monetary Policy Rate (MPR) which is always announced after every meeting of the MPC. For instance, an upward inflationary tendency or excess liquidity posture may necessitate a higher policy rate whereas the rate may be reviewed downward if the economy suggests otherwise. In Nigeria, monetary policy has been implemented under both direct and indirect systems. Up till the mid-1986, monetary policy was regulated making the authorities to depend on the use of credit ceiling, administered interest rates, and sectoral allocation of bank credit (Onyido, 2001). The credit ceiling was extensively employed to restrain money stock, supplemented by the use of reserve requirements and occasionally, other measures. Besides, banks tended to circumvent direct controls while, the latter did not promote competition in the financial sector, thus affording protection to inefficient institutions. Since the introduction of the Structural Adjustment Programme in July 1986, the implementation of monetary and financial policies has primarily been via an indirect approach. The deregulation of the economy paved the way for monetary policy instruments such as the Open Market Operation (OMO), Discount Window Operations (DWO), liquidity ratio, Cash Reserve Requirement (CRR) and interest rate policy which are used to execute monetary policy in the country, most especially since 1993.

**Ministry of Finance and Fiscal Policy: Origin, Functions and Structure:** The Finance (Control and Management) Ordinance established the Federal Ministry of Finance in 1958, to replace the then Finance Department. The Ordinance conferred on the Ministry, the responsibility for the control and management of the public finance of the Federation. Specifically, the functions of the Federal Ministry of Finance are to: prepare annual estimates of revenue and expenditure for the Federal Government; formulate policies on

fiscal and monetary matters; mobilise domestic and external financial resources through both internal and external financial institutions, for development purposes; maintain adequate foreign exchange reserves aimed at ensuring a healthy balance of payment position; and to maintain the internal and external value and stability of the Nigerian currency. To a reasonable extent, the credit ceiling was effective, the impact of restrained credit was felt in terms of demand pressure on the foreign exchange market. Others are to monitor government revenue from oil and non-oil resources; supervise the insurance industry; manage revenue allocation matters; and to relate with relevant international and financial institutions.

Such as the Economic Commission for Africa, World Bank, International Monetary Fund, European Union and so on. The Minister of Finance is appointed by the President of the Federal Republic of Nigeria with the approval of the Senate. He/she oversees the Finance ministry on a day-to-day basis although, he/she can be removed without legislative approval. Similar to very many organisation and developing economies, Nigeria's fiscal policy primary instrument has been the annual plan or the budget. The budget contains an estimate of expected revenue and anticipated expenditure for some time, say a year. In Nigeria, the Federal Government's budget preparation is done by the Ministries, Departments and Agencies (MDAs) and its coordination is vested in the Federal Ministry of Finance, through the Budget Office of the Federation (BOF). The management of fiscal policy in Nigeria has improved since the transition to a civilian administration. In consultation with the Presidency, the Minister of Finance adjusts the budget estimates as necessary after due scrutiny and inputs from policymakers in the ministry and then present it to the Federal Executive Council for consideration and possible adoption (Idowu, 2010).

The adopted estimates become the Appropriation Bill, which the President normally presents to the joint session, of the National Assembly for deliberation, consideration and passage, in most cases with some adjustments. The MDAs are called upon to defend their proposal by the legislators who thereafter put the Bill forward to the President for consent to make it an Appropriation Act. Today's Federal Government budget items are based on the Medium-Term Fiscal Framework. The main thrust of fiscal policy of the Federal Government has been to promote job creation and real growth of the economy through the pursuit of sound macroeconomic programmes and reforms. Apart from the statutory units in the Finance Ministry, there are other (ad-hoc) Committees like National Economic Intelligence Committee, National Economic Management Team under the leadership of the Presidency, National Economic Council presided over by the Vice President, National Council of States and others that contribute or advise on economic matters. There are several subsidiary units of the Federal Ministry of Finance and it includes the Budget Office of Federation, Debt Management Office, and the Federal Inland Revenue Services which function in implementing fiscal policies in Nigeria. All the activities of these units are coordinated by the Ministry.

**National Planning Commission and Nigeria's Policy Coordination:** The main philosophical objective for setting up the National Planning Commission (NPC) was to provide the knowledge base from which operational policies can be obtained for guiding the nation's planned efforts towards transforming the economy into a modern, robust and resilient one. The NPC has since 1985 undergone major transformation. In 1988, Decree 43 enforced the merger of the NPC with the Budget Office in the Ministry of Finance to become the Office of Planning and Budget in the Presidency which later became Federal Ministry of Budget and Planning in January 1990. The National Planning Commission (NPC) was originally established by Decree No 12 of 1992 and later amended by Act 71 of 1993 and charged with overall responsibility for matters relating to national economic planning, the annual capital budget and overall national economic management. The specific core responsibility is the formulation of medium-term and long term economic and development plans for the nation. The functions of the Commission include: to provide policy advice to the President, Commander-in-Chief of the Armed Forces of Nigeria in particular on all spheres of national life; to set national priorities and goals, and engender consensus among Government agencies, corporate bodies and workers' unions in support and accomplishment of such priorities and goals as may be contained in the guidelines issued by the Commission from time to time.

To monitor projects and progress relating to plan implementation; and to formulate and prepare long, medium and short term national development plans and coordinate such plans at the Federal, State and Local Government levels. Others are to undertake periodic reviews and appraisal of the capabilities of the human and material resources of Nigeria to advance their development and efficiency and effective utilisation; to



mobilise popular group and institutional consensus in support of Government policies and programmes; to manage multilateral and bilateral economic co-operations, including development aid and technical assistance programming, and finally to conduct research into various aspects of national interest and public policy and ensure that the implications and results of the findings in such research are geared towards the enhancement of national economic, social, technological, defence and security capabilities and management.

### **Policy Decisions and Economic Performance in Nigeria**

**Fiscal Behaviour and Monetary Response in Nigeria:** Historical facts showed that central banks, such as Bank of England, were obliged to advance loan facilities to the fiscal authorities due to functions as a lender of, last resort and manager of the legal tender currency, who has statutory order to issue and print banknotes (Merwe and Mollentze, 2010). The loans were advanced by the Central Banks to the Government mainly in times of economic needs. The Central Banks were allowed to shore-up their capital base and cash reserves to have funds for government loan financing. The loan could be temporary or permanent. Merwe and Mollentze (2010), noted that, up till 1914, the loan advances were backed with tax revenue and proceeds from bond subscribed to by members of the public. It was reported that both the World Wars I and II were funded by Central Banks in form of loan to the Governments, making the Central Banks' holdings of Government securities the main components in their asset portfolio. The turn of events in mainstream macroeconomics in the 1970s impacted on economic policy design of the 1980s and many countries adopted policy rules in monetary policy decisions. As for the monetary policy rules, the target was set for the money supply, interest rates and the exchange rates.

Beginning in 1990, some countries have embraced setting targets for inflation in monetary management, leading to the inflation-targeting framework. On the fiscal side, policy rules were mainly directed towards cutting wasteful spending and reducing the level of external debt (see Sims, 2011). The resultant effects of the adoption of rules were that public finances became sustainable and dependency on Central Banks for deficit financing reduced significantly (or almost non-existent) in most Western and some developing countries. As a developing country, Nigeria's policy formulation and approach followed the observed patterns in international communities. Several economic frameworks have guided economic activities in the few decades of Independence in Nigeria. Between 1960 and 1985, there were four National Development Plans, followed by a three-year Rolling Plan over 1990 and 1992 and a long-term perspective of twenty-five years. Other plans or programmes include the National Economic Empowerment and Development Strategy (NEEDS) I and II, the Seven-Point Agenda and the Transformation Agenda. In addition to the policy efforts made over these years, the economic outcomes have also been immensely influenced by the political environment. Over the period 1960 to 2019, the country's politics has oscillated between military and civilian forms of government, and about thirty years were spent by the military rulers though.

The last twenty years, 1999 - 2019, have uninterruptedly been under a participatory democratically elected civilian administration. The two forms of administration had different implications for policy design and its outcomes. The military regime expended much energy and resources on self-seeking perpetuity in the office at the expense of the economy. The Central Bank of Nigeria was subsumed under the military Head of State, implying loss of (or limited) independence. Monetary policy was proposed through the Federal Minister of Finance or by a means of a memorandum sent by the Central Bank directly to the Presidency. On the other hand, among other things, the CBN (2007) Act suggests greater autonomy for the CBN and its policymaking in some areas. For instance, the Governor of the CBN would report in testimony to the National Assembly on its operation rather than seek approvals for monetary policy measures through the Minister of Finance (Onyido, 2001 and CBN, 2007). Table 1 shows the monetary responses to various fiscal behaviour in Nigeria, covering the period over 1981 to 2017. As shown in Table 1 the growth in fiscal deficit over the period has been very unstable. There was a marked increase in fiscal spending that resulted in a deficit of between 2.69 and about 6.00 per cent between 1981 and 1999. The fiscal deficit however reduced consistently since 2000, suggesting a restraint on excess spending.

In 2009, the government spending growth rate was just 1.83 and rose to 3.24 in 2017. Fiscal deficit was consistently downward from 2001 (2.72 per cent) to 2008 (nearly zero per cent). The implication of the fiscal operations for monetary policy is reflected in the proportions of fiscal deficit that is financed by the CBN. The

low deficit witnessed could be attributed to various reforms in the public sector. Though an upward deficit trend from 0.12 per cent in 2008 to 1.83 in 2009 was noticed, it fell marginally in a gradual order, all through to 1.44 in 2013 and 0.94 per cent in 2014. The main characteristic of the fiscal actions is that the earnings from crude-oil sales have been the sole determinant of government spending during the period - expenditure was high when earnings went up and shrank during low proceeds from oil sales. Monetary management was primarily carried out to ensure price stability. To this extent, the CBN acted and responded in a manner dictated mainly by the public sector in Nigeria.

Table 1 shows the extent to which the CBN financed the budget deficit of the Federal Government from 1981 to 2017. In addition to being a banker to the Federal Government, the CBN raises loan on its behalf and takes up a whole or a part of the deficit. As contained in the table, between 1981 and 2017, the highest per cent of the budget deficit was in 1999 amounting to 5.37 whereas the largest take-up by CBN was in 2015, 615.96 per cent. In a bid to contain inflationary pressure in the Nigerian economy, the CBN mopped-up money from the coffers of the Federal Government leading to negative financing of annual average in 1984 to 1985, 1989 to 1990 and over 1996, 2000 and 2002. In 2003, 94.05 per-cent of fiscal deficit was financed by the CBN. While the CBN rather tightened money supply in 2008, the proportion that was mopped-up was just 4.21. It should be noted that Table 1 is a reflection of loosening and tightening policy of the CBN to ensure stability in the economy.

**Table 1: Fiscal Deficits and Distribution of its Financing**

<b>Years</b>	<b>Fiscal Deficit (% of GDP)</b>	<b>CBN Financing (% of Deficit)</b>	<b>Bank Financing (%)</b>	<b>Non-Bank (%)</b>
1981	-2.69	3.62	3.02	1.18
1982	-3.94	2.99	3.99	0.41
1983	-2.06	3.27	5.3	1.76
1984	-1.56	-1.42	2.37	0.56
1985	-1.58	-0.57	0.79	-0.21
1986	-4.08	6.04	0.48	0
1987	-2.36	0.59	2.81	3.66
1988	-3.8	7.47	6.1	2.26
1989	-3.61	-6.48	-9.24	3.44
1990	-4.43	-1.5	2.73	3.36
1991	-6	18.43	31.11	1.01
1992	-4.35	46.43	33.6	13.12
1993	-5.18	62.38	3.02	1.73
1994	-3.99	41.25	3.99	19.35
1995	0.03*	7.31	5.3	-10.72
1996	0.85*	-52.29	2.37	9.95
1997	-0.12	12.8	0.79	2.24
1998	-2.91	174.88	0.48	-5.1
1999	-5.37	-	2.81	-18.56
2000	-1.5	-16.21	6.1	30.31
2001	-2.72	225.69	-9.24	-18.01
2002	-2.66	-200.17	2.73	88.23
2003	-1.52	94.05	31.11	29.5

2004	-1	0	33.6	46.5
2005	-0.72	0	0	143.5
2006	-0.35	0	0	45
2007	-0.36	0	0	40.21
2008	-0.12	-4.21	159.8	82.78
2009	-1.83	0	67.9	394.98
2010	-2.04	118.45	175.61	354.45
2011	-1.83	6.2	749.7	355.84
2012	-1.37	45.35	496.43	273.11
2013	-1.44	58.71	471.34	257.73
2014	-0.94	-	510.44	195.37
2015	-1.65	615.96	428.83	111.87
2016	-2.18	0.2	834.09	524.6
2017	-3.24	-	0.2	1,180.00

**Source:** Computed from the Central Bank of Nigeria Statistical Bulletin (various editions). **Notes:** The years with asterisks (\*) had a fiscal surplus.

A cursory look at the general macroeconomic indicators and monetary aggregates such as inflation and real output (See Figures 4 – 7) reveals the extent of effectiveness of the policy responses. The output, inflation, money supply and credit to private sector (outcomes and targets) data indicate that fiscal activities might have posed some difficulties for monetary policymakers. Specifically, the money managers are confronted with some issues which include lack of coordination in (and excessive) fiscal spending among Nigeria's local, state and federal Governments; cohesive monetisation of fiscal deficit by the CBN; monetisation and sharing of the excess crude-oil earnings among the tiers of governments and frequent use of supplementary budget for non-contingent activities.

**Figure 4: Policy Games and Outcomes in Nigeria**

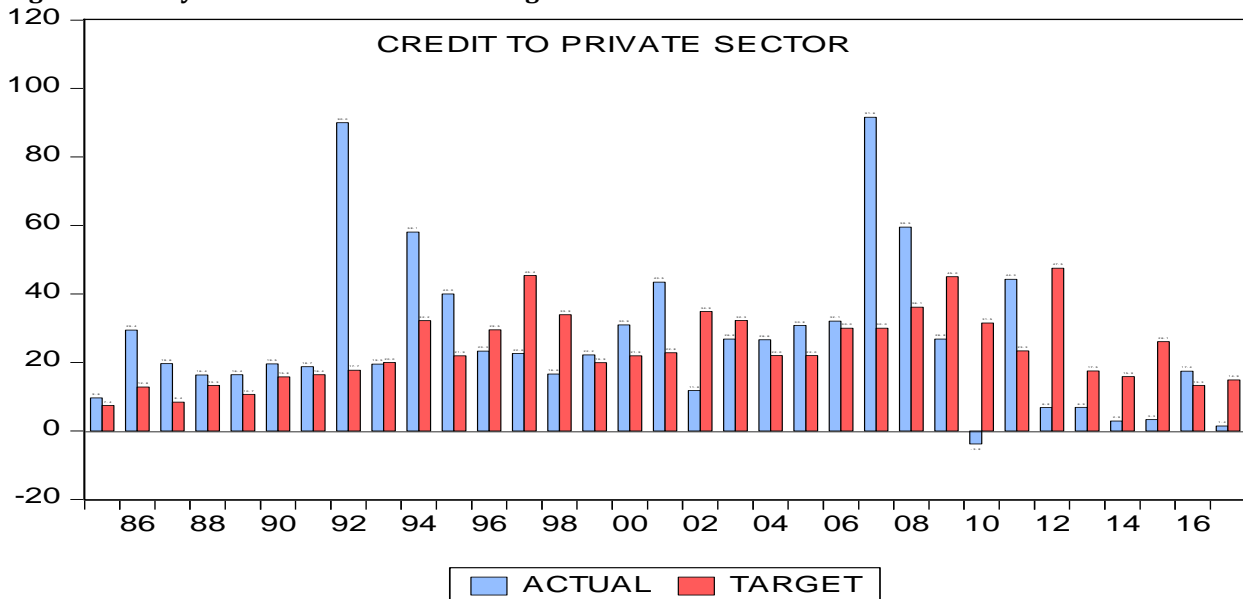


Figure 5: Actual and Target Credit to Private Sector in Nigeria

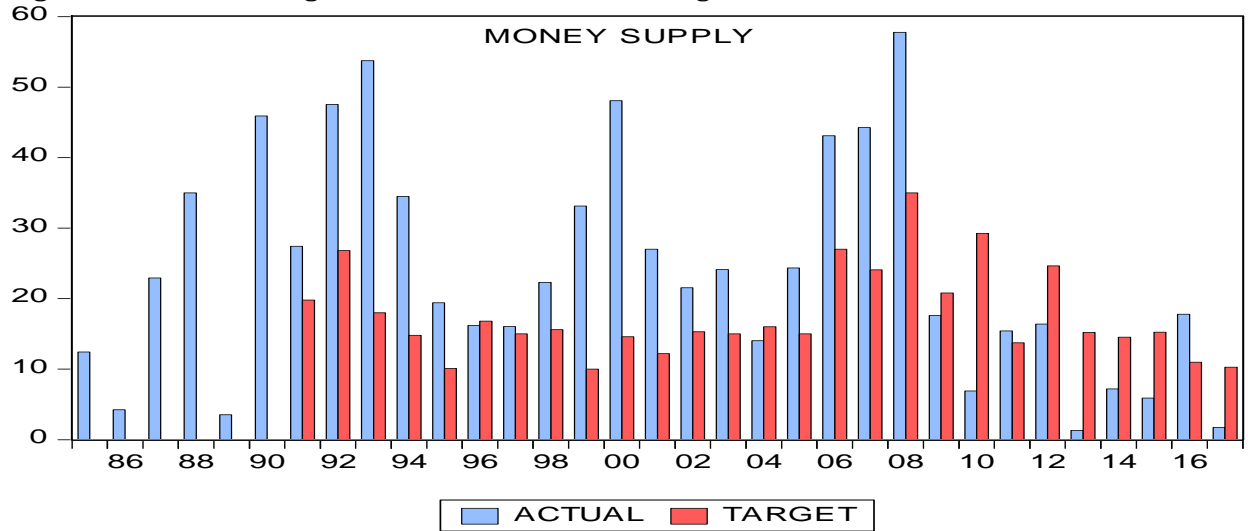


Figure 6: Real Output in Nigeria

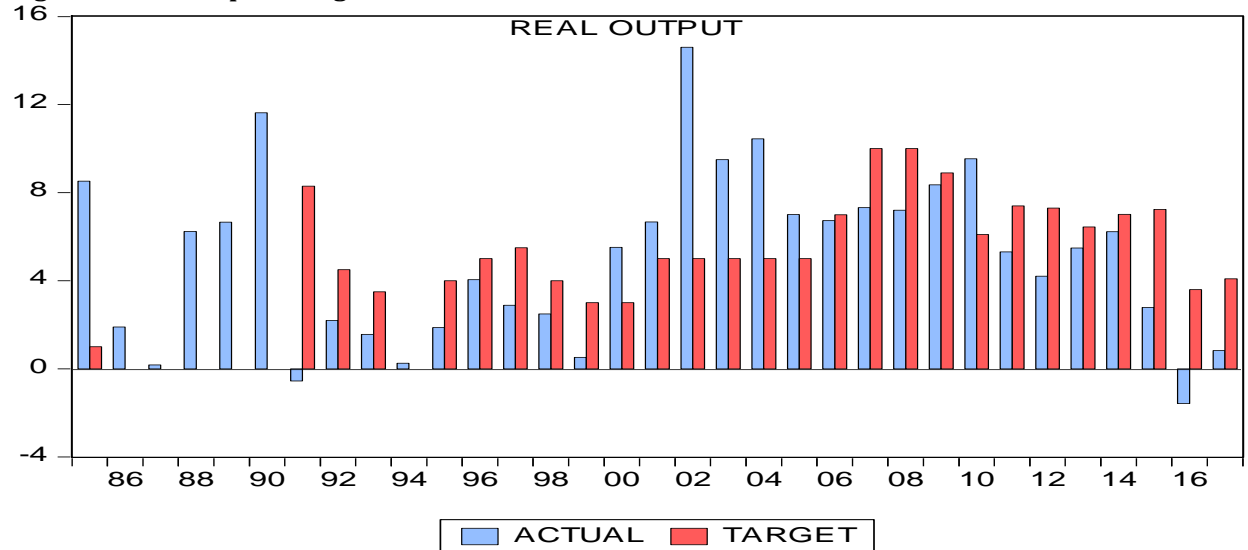
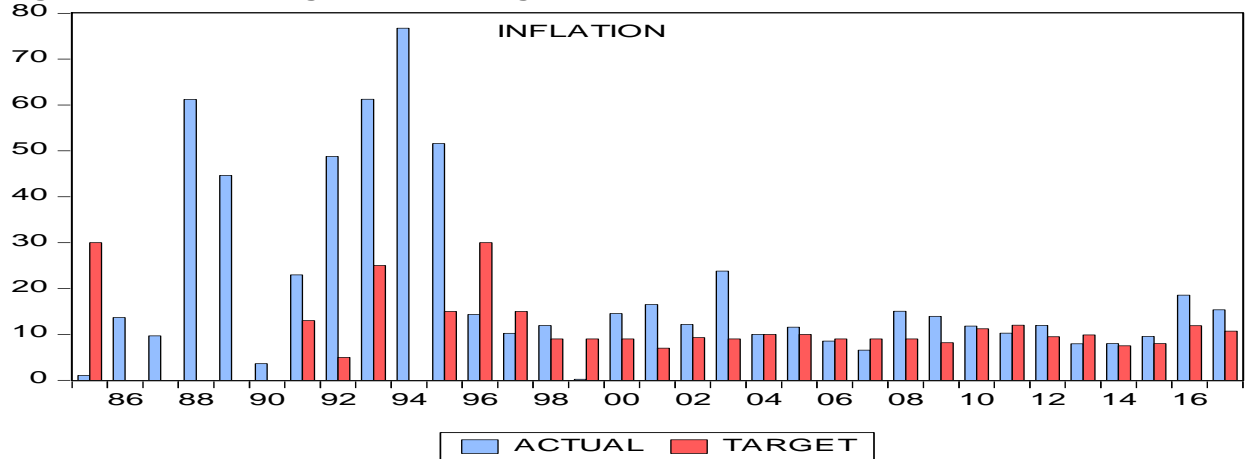


Figure 7: Actual and Target Inflation in Nigeria



**Measures for Efficient Policy Outcomes in Nigeria:** Some specific economic reform measures taken since 2003 to redirect the Nigerian economy include Monetisation Policy, Introduction of Contributory Pension Scheme, Public Procurement Policy Unit; Introduction of Medium Term Plan in the Budget Process; Enactment of Fiscal Responsibility Act in 2007; Prudent Fiscal Regime and Efficient Public Sector Management and the Signatory to the Convergence Criteria required for forming the West African Monetary Zone of 4 per cent; as well as Banking Reforms including Consolidation and Recapitalisation. The effects of the various policy measures are observed in the performances of some macroeconomic variables and targets, as summarised in Figures 4 - 6. For instance, in Table 1, the contribution of the non-bank public to deficit financing has improved. From a low level of less than 30 per cent in 2003 to 1,180.00 per cent in 2017, reflecting improvement in the money and capital markets and in turn the participation of the public in financing borrowing. Moreover, inflation has reduced significantly from about 75 per cent in 1994 to nearly 15 per cent in 2017 with a marginal deviation between actual and target rates. Similarly, the growth rate of real output has regained positive trend, more importantly since 2003.

**Challenges of Policy Coordination in Nigeria:** The foregoing has shown that policy coordination is crucial for efficiency and effectiveness in economic policy. However, some issues must be addressed to realise the full benefits of coordination in Nigeria. These include:

**Manpower Planning:** Human capacity building in the public sector for policy purposes and entrenchment of economic efficiency in policy designs is critical to sustaining economic progress that appropriate policy coordination may be used to achieve. Adequate and capable human resource would not only enable rich policy formulation but also it would allow proper implementation, evaluation and assessment of policy measures. Also, the availability of skilled manpower to manage every phase of the policy cycle tends to minimise potential conflicts in public policy management.

**Accurate, Reliable and Timely Data:** Improvement in the activities of the data or information management agencies such as the National Bureau of Statistics to release timely, reliable and adequate data on socio-economic and political activities may enhance development planning and subsequent policy design. Central Bank autonomy allows the choice of monetary instrument independently with or without consideration for fiscal policy, more importantly in the inflation-targeting monetary framework. Since monetary policy actions, for instance, are taken based on the data on economic variables such as money supply and inflation; reliable, accurate and timely data would serve to support efforts aimed at promoting and sustaining efficient economic performance. This is because data serves as both an input factor and a feedback variable for policymakers.

**Economic and Political Stability:** Macroeconomic outcomes have indicated that the Nigerian economy has enormous potential for growth and prosperity if both political and economic environments are conducive for appropriate policy implementation. The performance of the last twenty years could be sustained if policies are coordinated and each economic agency is empowered adequately to play its role as stipulated or enshrined in their various statutes or Acts. Besides, Nigeria has a high dependence on the foreign sector and is very susceptible to developments therein; therefore, uncertainties in policy process due to foreign shocks may be eliminated by speedy diversification of the economy, dependence on local materials or products and a host of other measures.

**Institutional Arrangement:** The composition of the members of the Monetary Policy Committee does not mandate that the Permanent Secretary of the Federal Ministry of Finance to attend the Committee's meetings, thus, the monetary policy decisions may at times lack adequate input from fiscal authorities particularly if the monetary authorities want to punish the government for its irresponsibility. A rearrangement in the composition of the membership of the Central Bank of Nigeria to allow for a solid and adequate representation of the Ministry of Finance might be necessary for efficiency in policy matters in Nigeria. This will ensure a robust fiscal-monetary policy interface, particularly as it concerns policy formulation.

**Political Economy of Policy Formulation:** Naturally, the political consideration tends to dominate the economic side of the policy process since the approval and implementation depend largely on public office holders, many of whom are politicians. Therefore, efficiency in policymaking would require an adequate statement of possible policy options and their consequences. The options are expected to factor in various

interests of groups and the State to allow for broad choices, and eventually avoid possible delay or rejection of policy proposal.

#### 4. Further Evidence on Fiscal-Monetary Interactions in Nigeria

The purpose of this section is to present a brief econometric analysis of the interactions between fiscal and monetary policy and its effects on key macroeconomic variables in Nigeria. The relative effect is crucial for understanding the underlying processes that shape the dynamic behaviour of the economy in general, and the mutual dependence of fiscal and monetary policy instruments in particular. Since economic policies interact essentially to stabilise shocks, allocate resources and/or remove structural rigidities; the complementary or substitutability of both fiscal and monetary policy instruments, over the Nigerian business cycle, is therefore discussed.

**Existence of Stationarity and Long-Run Relationship:** The long run relationship exists if variables are cointegrated following the value of F-statistic in the Bounds test, which would be greater than the upper bound value of the critical value at a certain level of significance (Pesaran et al., 2001). If otherwise, the test is inconclusive or has no long-run relationship. The result from Bounds test in Table 3 showed that F-statistics (4.093) is above the upper critical bound at 5% level of significance. Hence, we conclude that there is a long-run relationship between the variables. The Augmented Dickey-fuller (ADF) and Phillip-Perron (PP) tests for unit root show that all the variables were at least stationary at the first difference, hence enabling the use of Bounds test for cointegration. The cointegration test confirms that there is a long-run relationship among the variables since the value of the F-statistic is greater than the upper bound critical value at 5% level of significance.

Model 1 reveals that fiscal balance and interest rate have a positive impact on RGDP both in the long and short runs. That is, instruments of fiscal and monetary authorities have the same effect on RGDP. However, the fiscal balance has a weightier effect on RGDP as suggested by its higher coefficient both in the short and long-run horizon. On the other hand, Model 2 reveals that fiscal balance and interest rate both have a direct (complimentary) effect on inflation in the short run but in the short run the effect of fiscal balance on inflation becomes negative while that of interest rate remains positive. In sum, fiscal and monetary authorities have a contrast impacts on inflation in the long run, indicating *poor* policy coordination over growth trend in Nigeria. The speed of adjustment term for both models have coefficients that are substantial, negative and significant as expected. The diagnostics tests reveal that the models have the desired properties.

**Table 2: Unit Root and Cointegration Tests**

Variables	Order of integration (ADF)	Order of integration (PP)	Status
RGDP	I(0)	I(0)	Stationary
MONEY	I(1)	I(1)	Non-stationary
INTEREST	I(0)	I(0)	Stationary
INFLATION	I(0)	I(0)	Stationary
FISCAL	I(0)	I(0)	Stationary
<b>Bounds test</b>			
	F-statistic	4.092694	
Significance		I(0) Bound	I(1) Bound
10%		2.45	3.52
5%		2.86	4.01

2.5%	3.25	4.49
1%	3.74	5.06

**Source:** Author's computation

**Table 3: Short-Run and Long-Run Coefficients**

Variables	Model 1 Dependent RGDP	Variable:	Variables	Model 2 Dependent INFLATION	Variable:
<b>Short-run coefficients</b>					
D(FISCAL)	0.851 (0.0315)		D(GDPGROWTH)	-0.827 (0.2096)	
D(INFLATION)	-0.098 (0.0143)		D(FISCAL_BAL)	1.084 (0.5388)	
D(INTEREST)	0.502 (0.0064)		D(INTR)	0.758 (0.3491)	
D(MONEY)	-0.570 (0.1804)		D(MONEY_SUPPLY)	0.408 (0.5475)	
ECM(-1)	-0.667 (0.0000)		ECM(-1)	-0.501 (0.0043)	
<b>Long run coefficients</b>					
FISCAL	1.276 (0.0344)		GDPGROWTH	-1.649 (0.1843)	
INFLATION	-0.147 (0.0157)		FISCAL_BAL	-5.016 (0.3220)	
INTEREST	0.752 (0.0020)		INTR	1.513 (0.2957)	
MONEY	0.011 (0.9647)		MONEY_SUPPLY	0.814 (0.5850)	
C	-3.741 (0.4883)		C	-24.534 (0.4272)	

**Source:** Author's computation

**Table 4: Diagnostic Tests for the Models**

Tests	Probability (Model 1)	Probability (Model 2)
Breusch Godfrey LM test	0.7970	0.0962
Jarque-Bera Normality	0.0240	0.0000
Breusch Pagan Godfrey	0.4950	0.3049
Ramsey-reset test	0.6323	0.0025

## 5. Conclusion and Policy Recommendations

The paper presented a reflections on the relationship between fiscal and monetary policies interactions in Nigeria. It also examined the role of the Federal Ministry of Finance, which oversees the fiscal operations of the Federal Government, the Central Bank of Nigeria oversees the monetary policy and other government agencies involved in the formulation and implementation of policies. Using the payoffs in policy games, there are possibilities of achieving efficient outcomes when both the central banks and government commit to stated policy objectives. Due to the fiscal-monetary policy mix, the expansionary fiscal balance or deficit and debt override the CBN's tight monetary policy stance and reduced spending, contributing to sustained economic growth. However, the loose monetary stance consequently generates higher domestic inflationary pressure. In conclusion, empirical evidence that the improved competitiveness of the economy was eroded by domestic price pressure due to the loose monetary regime and aided by an expansionary fiscal policy implemented through higher deficit financing. A main recommendation would be that policies for both stabilisation and growth objectives must align to have optimal outcomes.

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