
**THE RELATIVE EFFECT OF MONETARY AND FISCAL POLICIES
UNDER FIXED AND FLEXIBLE EXCHANGE RATES**

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ABSTRACT

This paper used graphically approach to examined the relative effect of monetary and fiscal policies under fixed and flexible exchange rate Today, monetary and fiscal policies are both commonly accorded prominent roles in the pursuit of macroeconomic stabilization in both developed and developing countries, but the relative importance of these policies have been a serious debate between the Keynesians and the monetarists. The monetarists believe that monetary policy exert greater impact on economic activity while the Keynesian believe that fiscal policy rather than the monetary policy exert greater influence on economic activity. Regardless of their proven effectiveness in some economies as policies that commands influence on economic activities, the two policies have not been adequately utilized in Nigeria. Having examined the effect of monetary and fiscal policies under fixed and flexible exchange rates, it was observed that though both regimes have some merits and demerits. But fiscal policy is effective in the period of fixed exchange rates than monetary policy. Similarly, monetary policy is more effective during a flexible exchange rate regime. Based on these facts, a country with a fixed exchange rate can, however, conduct a type of monetary policy: it can decide to change the level at which the exchange rate is fixed vis-à-vis devaluation, and revaluation. Therefore, the policy-makers should adopt the appropriate exchange rate system while dealing with external sector problems.

Keywords: Devaluation, Revaluation, Fixed Rate, Flexible Exchange Rate, Monetary Policy

INTRODUCTION

Fiscal and monetary policies are intricately linked in macro-economic management. Developments in one sector have a direct nexuses with developments in another. Indeed, fiscal policy is pivot to the wellbeing of any economy, as government's ability to tax and to spend

affects the disposable income of citizenry and the overall industrial sphere. To the Monetarists, it is the monetary policy that exerts greater impact on economic activity as unexpected deviation in the stock of money affects output and growth. Meaning that the stock of money must increase unpredictably for central bank to stimulate profitable growth in the economy. In fact, the Monetarists are of opinion that an increase in the spending power of government would crowd out private sector and such can greater influence over any short-term benefits of an expansionary fiscal policy (Adefeso and Mobolaji, 2010).

Meanwhile, at liquidity trap, which portrait a situation in which real interest rates cannot be reduced by any action of the monetary authorities was introduced by Keynesian economics. From this time, at liquidity trap, an upsurge in the money supply would not influence economic growth because of the plunging pressure of investment owing to insensitivity of interest rate to money supply. Thus, John Maynard Keynes endorses fiscal policy by encouraging aggregate demand in order to curb unemployment and control general increase in price level. While there are several studies on this debates between Keynesian and Monetarist in the developed countries, only fragmented evidence have been provided on this issues in the case of Nigeria (Adefeso and Mobolaji, 2010).

In the present day, monetary and fiscal policies are both frequently accorded prominent roles in the pursuit of macroeconomic stabilization in both advanced and emerging economies, but the comparative significance of these policies has been a serious argument between the Keynesians and the Monetarists. The Monetarists believe that monetary policy exert greater impact on economic activity while the Keynesian believe that fiscal policy rather than the monetary policy exert greater influence on economic activity. Regardless of their proven effectiveness in some economies as policies that commands influence on economic activities, the two policies have not been adequately utilized in Nigeria. (Ajisafe and Folorunsho, 2002). The objective of this paper is to review the practice of monetary and fiscal policies under fixed and flexible exchange rates. The rest of this paper was divided into conceptual framework, theoretical framework, relative effectiveness of monetary and fiscal policy under fixed and flexible exchange rate and conclusion

2.0 CONCEPTUAL FRAMEWORK

2.1 Conceptualizing Fiscal Policy

The term fiscal policy has conventionally been associated with the use of taxation and public expenditure to influence the level of economic activities. The implementation of fiscal policy is essentially routed through government's budget. The budget is, therefore, more than a plan for administering the government sector. It (budget) both reflects and shapes a country's economic

life. In fact, the most important aspect of a public budget is its use as a tool in the management of a nation's economy (Omitogun and Ayinla, 2007).

Thus, fiscal policy aims at stabilizing the economy. Increases in government spending or a reduction in taxes tend to pull the economy out of a recession; while reduced spending or increased taxes slow down a boom (Dornbusch and Fischer, 1990).

Fiscal policy involves the use of government spending, taxation and borrowing to influence the pattern of economic activities and also the level and growth of aggregate demand, output and employment. Similarly, fiscal policy requires government's control of the economy through the manipulation of its income and spending power to achieve certain desired macroeconomic objectives (goals) amongst which is economic growth (Tom-Ekine, 2014 and Obayori, 2016). Olawunmi and Tajudeen (2007) opined that fiscal policy has conventionally been associated with the use of taxation and public expenditure to influence the level of economic activities. They further said that the implementation of fiscal policy is essentially routed through government's budget. Fiscal policy is to resolve and adjust the full employment and total demand through mechanisms such as government expenditures, taxation and debt management (Hottz-Eakin, Lovely and Tosin, 2009). As noted by Anyanwu (1993), the objective of fiscal policy is to promote economic conditions conducive to business growth while ensuring that any such government actions are consistent with economic stability.

In principle, fiscal dominance occurs when fiscal policy is set exogenously to monetary policy in an environment where there is a limit to the amount of government debt that can be held by the public. Hence if the inter-temporal budget constraint must be satisfied, fiscal deficits would have to be magnetized, sooner or later. In fact when the size of the financial system is small relative to the size of the fiscal deficits, a central bank may have no choice but to magnetize the deficits (Oyejide, 2003).

2.2 Conceptualizing Monetary Policy

Monetary policy is concerned with discretionary control of money supply by the monetary authorities (Central Bank with Central Government) in order to achieve stated or desired economic goals. Governments try to control the money supply because most governments believe that its rate of growth has an effect on the rate of inflation. Hence monetary policy comprises those government actions designed to influence the behaviour of the monetary sector.

Monetary Policy is the deliberate use of monetary instruments (direct and indirect) at the disposal of monetary authorities such as central bank in order to achieve macroeconomic stability. Monetary Policy is essentially the tool for executing the mandate of monetary and price stability (Dwivedi, 2005).

Monetary policy as one of the tools of controlling money supply in an economy of a nation by the monetary authorities in order to achieve a desirable economic growth. Thus, it is effective

only when an economy is characterized by well-developed money and financial markets like developed economies of the world.

Three basic kinds of monetary policy decisions can be made about: a) The amount of money in circulation; b) The level of interest rate c) The functions of credit markets and the banking system (Ogunjimi, 1997). The combination of these measures is designed to regulate the value, supply and cost of money in an economy, in line with the level of economic activity. Excess supply of money will result in an excess demand for goods and services, prices will rise and balance of payments will deteriorate. The challenge of monetary policy management rest wholly on monetary authorities which has over the years been committed to its effective control.

3.0 THEORETICAL FRAMEWORK

The Keynesian approach to fiscal policy and Monetarist approach is the theoretical basis of this paper. Meanwhile, the problem of whether an expansionary monetary policy or fiscal policy helps to raise output gained prominence from the Keynesian model. In broad-spectrum, an expansionary monetary policy leads to an increase in investment via lower interest rate, will lead to an increase in output. Nevertheless, for many years, and to some extent and even now, there is the view that Keynesians ascribe that only fiscal policy can affect income and output, while monetarists believe that only monetary policy can have such an effect. It turns out, therefore, that in certain special cases, only fiscal policy works and in another special case, only monetary policy works (Obayori, Nwogwugwu, and Omozuawo, 2016).

It has, however, been observed that only fiscal policy will work, and monetary policy will not have any effect, if one of the links between changes in money supply and changes in investment is broken. The accounts of Keynesian theory concentrate on the liquidity trap as the extreme Keynesian special case. The important implication of the liquidity trap is that once the rate of interest has fallen to the level at which the liquidity trap occurs, an increase in the money supply will not reduce the interest rate any further.

However, in a liquidity trap, an increase in government expenditure will still increase output. In fact, as long as we remain in liquidity trap, an increase in government expenditure will have the full effect on income predicted by the multiplier because interest rates do not rise at all and there is no crowding out of private investment to offset any of the effects of the increase in government expenditure. Hence, the support for the fiscal action of the government to boost output.

The general theoretical framework accepted by Keynesians indicated that provided the economy was not in a liquidity trap and provided that there was some sensitivity of investment to interest rates, monetary policy would affect output. This view is now accepted as the empirically relevant case. The converse case in which monetary policy can affect income while fiscal policy is powerless will also not occur in the general Keynesian model. This view referred to as the

monetarists' view is expressed by making reference to the "Quantity Theory of Money" as in the equation below:

$$MV=PY \quad (1)$$

Where; M stands for money stock;
V, velocity of circulation;
P, an index of the price level; and
Y, the income.

The right-hand side of the equation above is the value of nominal national income. If V is constant then the equation tells us that there is a one-to-one relationship between changes in the stock of money and changes in the value of national income.

$$M = kPY \quad (2)$$

If, in addition, as in the present context of our discussion of monetary and fiscal policy, we keep the price level (P) fixed, then the only way that Y can change is if M changes. The implication is that any other change, such as a change in government expenditure will not affect the level of real income. Hence, fiscal policy must be powerless while monetary policy will affect real output.

Considering equation (2) as a demand for money which is not dependent at all on interest rates, one has the idea that there is one, and only one, level of national income which would lead to a demand for money balances which is equal to the exogenously given money supply. This suggests that if there is an increase in one of the components of desired expenditure, such as government expenditure, what will happen is that there will be an excess demand for funds which will drive up the interest rate in the financial markets. The process will only stop when enough investment has been crowded out by the rise in interest rates so as to leave total expenditure back to its old level.

The end result of the dynamic process is however clear from the model in equation (3) below:

$$Y = C + I + G \quad (3)$$

An increase in government expenditure will lead to a drop in private investment of exactly the same magnitude leaving total expenditure and output unchanged. In terms of equation (3), the increase in G will be matched by a fall in I, and there is full crowding out. Hence fiscal policy cannot have any effect in the special case where the demand for money is completely insensitive to interest rate.

Given the scenario above, the issue now is to determine which view is more relevant to an economy, particularly the Nigerian economy Ajisafe and Folorunsho (2002).

4.0 RELATIVE EFFECTIVENESS OF MONETARY AND FISCAL POLICY

Generally, the effectiveness of stabilization policy is influenced by the international relationships that exist between nations (Gbosi, 2004). In international transactions, the question of exchange rate is of primary importance. However, it is logical to begin a consideration of fiscal and monetary policies under various exchange rate regimes. For simplicity sake, it is assumed that capital is perfectly mobile between countries. It is also assumed that a particular country permanently alter its rates of interest relative to the rest of the world. Here, simple IS-LM model was used for the analysis.

4.1 Expansionary Monetary Policy under Fixed Exchange Rate Regime

An expansionary monetary policy shifts the LM curve from LM_0 to LM_1 as shown in the figure 1 below. This brings about a fall in domestic interest rate from R_0 to R_1 . This makes domestic resources to be exchanged for foreign resources. The increase in the money supply causes the LM curve to shift from its initial position. The domestic interest rate and the level of income remain unchanged with the world and the domestic rate. This shows that monetary policy is ineffective under fixed exchange rate.

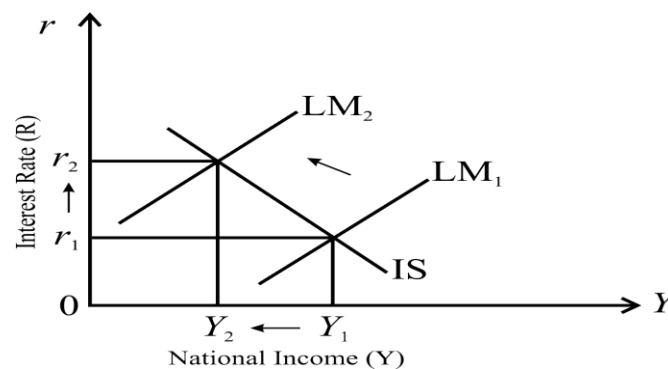


Figure 1: Expansionary Monetary Policy under Fixed Exchange Rate Regime

4.2 Expansionary Monetary Policy under Flexible Exchange Rate Regime

An expansionary monetary policy under flexible exchange rate shifts the LM curve from LM_0 to LM_1 as shown in the figure 2 below. This causes the interest rate to fall from R_0 to R_1 . The lower interest rate attracts capital inflow. This may cause a depreciation in exchange rate. However, it causes the prices of domestic goods and services cheaper relative to foreign goods and services. The increase in demand for domestic goods and services causes the IS curve to shift from IS_0 to IS_1 . The policy action makes the level of income to rise from Y to Y_1 . The LM curve shift from LM to LM_1 . This shows that monetary policy is more effective under flexible exchange rate.

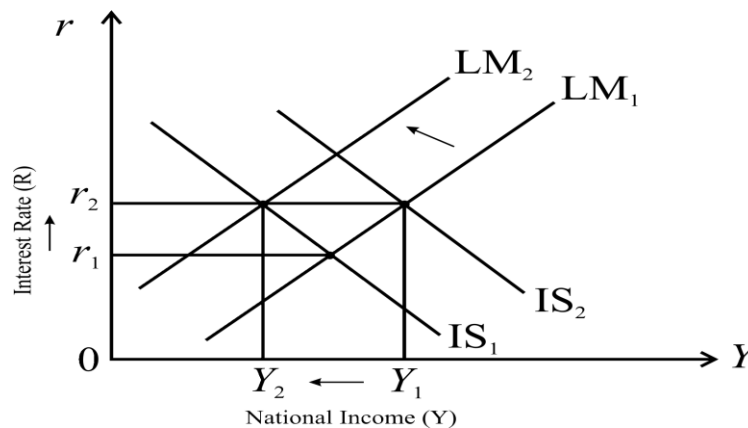


Figure 2: Monetary Policy under Flexible Exchange Rate.

From the diagram above, money demand is insensitive to interest rate. Meaning that interest rate (r) must fall for money demand (MD) to increase. $MD \rightarrow r \downarrow$

4.3 Expansionary Fiscal Policy under Fixed Exchange Rate Regime

An expansionary fiscal policy shifts the IS curve from IS_0 to IS_1 as shown in the figure 3 below. This causes the domestic interest rate to rise from R_0 to R_1 . The higher domestic interest rate attracts capital inflow. The inflow of funds in the form of foreign exchange must be bought with domestic currency. Consequently, there will be an increase in the domestic money supply. The LM curve shifts from LM_0 to LM_1 at the initial interest rate. As the original interest rate is reduced, there will be a rise in income. Specifically, income rises from Y_0 to Y_1 . From the analysis, it was concluded that fiscal policy is effective under fixed exchange rate than monetary policy.

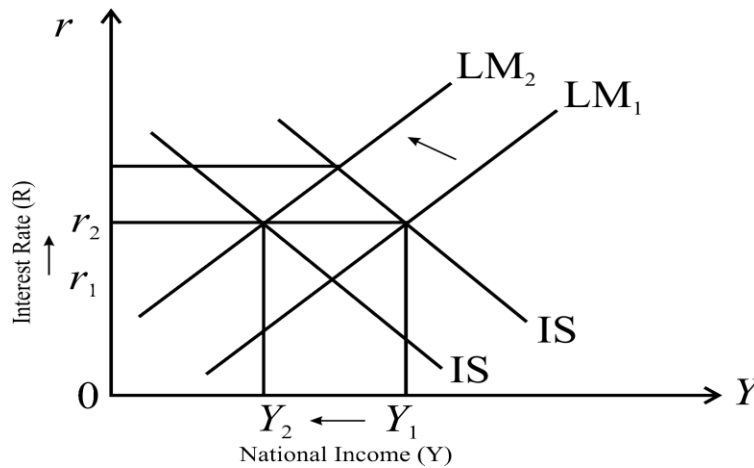


Figure 3: Expansionary Fiscal Policy under Fixed Exchange Rate.

4.4 Expansionary Fiscal Policy under Flexible Exchange Rate Regime

Under fixed exchange rate, an expansionary fiscal policy causes the domestic interest rate to rise from R_0 to R_1 . This occurs because the IS curve shift from IS_0 to IS_1 as shown in the figure 4. Here we see that foreign exchange appreciates and this reduces aggregate demand for domestic goods. But foreign foods now become cheaper. Eventually, income level increased from Y_0 to Y_1 .

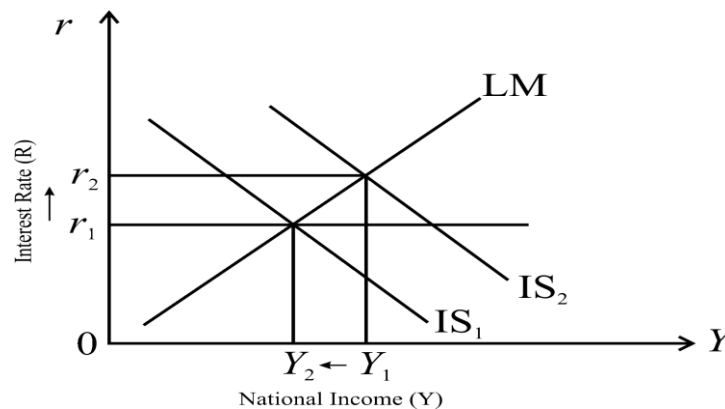


Figure 4: Expansionary Fiscal Policy under Flexible Exchange Rate.

4.5 Pros and Cons of Different Exchange-Rate Systems

The primary argument for a floating exchange rate is that it allows monetary policy to be used for other purposes. Under fixed rates, monetary policy is committed to the single goal of maintaining the exchange rate at its announced level. Yet the exchange rate is only one of many macroeconomic variables that monetary policy can influence. A system of floating exchange rates leaves monetary policymakers free to pursue other goals, such as stabilizing employment or prices.

Advocates of fixed exchange rates argue that exchange-rate uncertainty makes international trade more difficult. After the world abandoned the Bretton Woods system of fixed exchange rates in the early 1970s, both real and nominal exchange rates became (and have remained) much more volatile than anyone had expected. Some economists attribute this volatility to irrational and destabilizing speculation by international investors. Business executives often claim that this volatility is harmful because it increases the uncertainty that accompanies international business transactions. Despite this exchange-rate volatility, however, the amount of world trade has continued to rise under floating exchange rates.

Advocates of fixed exchange rates sometimes argue that a commitment to a fixed exchange rate is one way to discipline a nation's monetary authority and prevent excessive growth in the money supply. Yet there are many other policy rules to which the central bank could be committed. For instance, fixing the exchange rate has the advantage of being simpler to implement than other policy rules, because the money supply adjusts automatically, but this policy may lead to greater volatility in income and employment.

In practice, the choice between floating and fixed rates is not as stark as it may seem at first. Under systems of fixed exchange rates, countries can change the value of their currency if maintaining the exchange rate conflicts too severely with other goals. Under systems of floating exchange rates, central banks often use formal or informal targets for the exchange rate when deciding whether to raise or reduce the interest rate. We rarely observe exchange rates that are completely fixed or completely floating. Instead, under both systems, stability of the exchange rate is usually among many of the central bank's objectives.

5.0 CONCLUSION

Having examined the effect of monetary and fiscal policies under fixed and flexible exchange rates, it was observed that though both regimes have some advantages and disadvantages. But fiscal policy appears to be ineffective under flexible exchange rates. This assertion was corroborated by Ajayi and Ojo (1979). Thus, a country with a fixed exchange rate can, however, conduct a type of monetary policy; it can decide to change the level at which the exchange rate is

fixed. A reduction in the official value is called devaluation, and an increase in the official value is called a revaluation.

From the analysis, the following conclusion was drawn; fiscal policy is more effective under fixed exchange rate regime than monetary policy. On the other hand, monetary policy is more effective under a flexible exchange rate regime than fiscal policy. Therefore, the policy-makers should adopt the appropriate exchange rate system while dealing with external sector problems.

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