The monetary policy transmission mechanism and the effectiveness of monetary poli...

Finance, Investment

Introduction

In general, markets do not adjust automatically to bring about equilibrium. Thus, historically, many economists, including John Keynes, recommended the need for government intervention. In his book, ‘ The General Theory of Employment, Interest and Money’, Maynard Keynes asserts that the government should intervene actively in order to manage the level of aggregate demand in an economy so as to bring about desired level of employment and output. His argument is attributed to the fact that wages are rigid and, thus, may not fall enough to clear the market and solve the unemployment problem. Broadly, the government can intervene in the market through the application of either or both monetary and fiscal policy. In either case, however, the policies have no direct effect on aggregate demand. This paper will, thus, entail a discussion of the monetary policy transmission mechanism and the effectiveness of monetary policy.

Discussion

The process through which the monetary policy decisions influence or affect an economy is often known as monetary policy transmission mechanism. The monetary policy transmission entails a number of channels; processes through which monetary policies affect the level of aggregate demand in an economy. These processes commence with the transmission of OMO operations to market interest rates. This is achieved either via demand and supply for money or reserve markets. There are six key channels through which monetary policy decisions affect an economy. The most common is the interest rate channel. This channel works in conventional macroeconomic

models. The basic concept here is that, given some level of price rigidity, a rise in nominal interest rates translates to an increase in real interest rates, which often increase the costs of capital (borrowing). As such, most households may be forced to postpone or skip their consumption and businesses will cut their investments. Since, investments and consumptions are essential components of aggregate demand (AD), such actions may have an impact on the economy.

Another channel, the wealth channel, is largely pegged on Ando and Modigliani's Life-Cycle Model of Consumption (Mosser & Kuttner, 2002). According to this model, the consumption spending of households depends significantly on their wealth. The link between this model and monetary policy depends on the connection between asset prices and interest rates. Here, a policy-stimulated interest rate declines the value of long-lived financial assets such as bonds, real estate, and stocks. This will shrink the resources of households and consequently consumption. Moreover, the value of assets plays a vital role in Bernanke and Gertler's broad credit channel. As per this channel, asset prices determine the value of security/collateral that consumers and firms pay on loans borrowed (Mosser & Kuttner, 2002). Generally, a decline in the value of collateral will not have a significant effect on investment decisions in a ' frictionless' credit market. However, in the presence of agency costs, a decline in the value of collateral tends to elevate premium on borrowing external finances, which in turn reduce investment and consumption (Mosser & Kuttner, 2002). Narrow credit channel, equally regarded as a bank lending channel, depends primarily on credit market frictions, though here, banks play a substantial central role. Since

commercial banks rely largely on reservable demand deposits as their key source of finance, a decline in bank reserves, for instance, through contractionary monetary policy, will trim down the availability of bank loans. As such, given that a significant proportion of consumers and business rely heavily on bank financing, a decline in loan supply depresses aggregate spending in an economy.

Chart 1: Monetary transmission process

Source: Mosser, P. & Kuttner, 2002.

The exchange rate channel, which is equally a vital channel in the transmission process, depends on the relationship between interest rates and exchange rate. The chain of transmission is based on interest rate differentials between two nations, such that a rise in domestic interest rate relative to foreign interest rate will trigger domestic currency appreciation; increase in value of domestic currency against foreign currency. This will eventually lead to a decline in net exports and the overall level of AD (Mosser & Kuttner, 2002). The last channel, monetarist channel, focuses on the direct impact of variations in the relative quantities of assets, besides interest rates. Since, most assets in a portfolio are imperfect substitutes, changes in the composition of individual assets due to changes in monetary policy decisions, will trigger changes in relative prices and later cause real changes.

Although often considered as a primary remedy for common economic problems in many countries, the applicability and effectiveness of monetary policy is limited to a specific economic condition. This is largely because;

monetary policy tends to have a different effect aggregate demand (Income) and interest rates. There is a specific criterion that can be applied to test the effectiveness of an economy's monetary policy. This entails the extent with which a monetary policy action causes a change in aggregate demand in an economy. In order to illustrate this, let focus on the three ranges of the LM-framework (see chart 2). The chart assesses the extent with which an expansionary monetary policy can change interest rates and income in an economy. We can illustrate this using the LM framework cited in Dwivedi (2001). However, we equally need to capture how the effectiveness of monetary policy varies across the three ranges of the LM curve, which are Keynesian range (A-B), intermediate range (B-C), and classical range (C-D).

Chart 2: Evaluating the effectiveness of monetary policy

Since the effect of a monetary policy is first felt in the money market; we start by assuming equilibrium in the money market achieved by the intersection of IS and LM curves. In the above diagram, IS0-LM0 gives us the initial equilibrium in the money market, which corresponds with an interest rate (i*) and income (Y*). Now, assuming that the monetary policy committee initiates an expansionary monetary policy, say by participating in the purchase of T-Bills through open market operations, the LM curve will shift from LM0 to LM1 due to an increase in money supply in an economy. However, the extent with which such a shift will cause changes in both (i) and (Y) depends on the state (range) with which an economy is in. First, if such a change occurs in an economy characterized by the Keynesian range, as precisely illustrated in the chart above, a shift in LM-curve from

rightwards will not have any impact on interest rate and income. In such a situation, it can be argued that the monetary policy is ineffective since it has no effect on aggregate demand. Second, if such a change in monetary policy in instituted in an economy characterized by the intermediate range, a shift in LM from LM0-LM1 will cause interest rates to fall from i111-i1111 and income to increase from Y0 to Y1. In such a case, since such an action has an effect on interest rate and income, though small, we can argue that the policy is effective than in the previous scenario. Finally, assuming that an economy falls within the classical range, a shift in LM curve rightwards will make interest rates to fall from i1 to i11 causing AD (income) to increase from Y2 to Y3. Clearly, it can be observed that both changes in interest rate and income are relatively larger compared to the previous two scenarios. Thus, in the later scenario, the classical range, the monetary policy is arguably most effective.

Conclusion

Owing to our previous discussions, it is clear that monetary policy has no direct impact on aggregate demand. However, the manner with which monetary policy influences aggregate demand entails a monetary policy transmission process, which consist of six key channels. Further, the discussion reveals that when evaluating the effectiveness of monetary policy, the LM-framework is crucial since it precisely indicates how a change in monetary policy causes a change in both interest rate and income. From the three ranges of the LM-framework, the monetary policy is most effective during the classical range when interest rates are highly sensitive.

References

Dwivedi, D. N. (2001). Macroeconomics: Theory and policy. New Delhi: Tata McGraw-Hill.

Mosser, P. & Kuttner, K. (2002). The Monetary Transmission Mechanism: Some Answers and Further Questions. FRBNY Economic Policy Review, 1, 15-26.