

Monetary Policy: An Outline*

Respected Vice-Chancellor Professor Simhadri, Professor Bhanoji Rao, Professor K.C. Reddy, and fellow-members of Andhra Pradesh Economic Association. I am thankful to the organisers for inviting me to be the President and deliver the Presidential Address. There are several reasons for my being keen to be in Visakhapatnam to deliver the Presidential Address. I commenced my career in Government of Andhra Pradesh in Visakhapatnam as Assistant Collector Under Training over forty years ago - in 1965. I had the benefit of professional guidance from eminent scholars and economists in Andhra University such as Professors Sarveswara Rao garu, D.V. Ramana garu, G. Parthasarathy garu, K.V. Ramana garu and S. Chandrasekhar garu. Subsequently, I acquired many friends with strong links here, such as Professors Krishnamurthy garu and R. Radhakrishna garu. Professor Bhanoji Rao garu has been a valued friend, whether he was in the World Bank with me, or in Singapore or in the Administrative Staff College in Hyderabad. Professor K.C. Reddy garu worked alongside me when I was the Secretary in Planning and Finance Department of the Government of Andhra Pradesh. With all these attractions, I regret to say that I am not able to be physically present in Visakhapatnam to deliver the Presidential Address at the 23rd Annual Conference due to unavoidable official commitments.

The Andhra Pradesh Economic Association has been one of the pioneering efforts in our country in organising a sub-national level professional body of economists. I have no doubt that it is a wise initiative and needs to be carried forward. As the economic reform in India progresses, the relative balance in public policy would shift in favour of the states relative to the centre. The important areas earmarked for the centre, such as external sector and financial sector, tend to be subjected to globalisation while in areas such as education, health, sanitation, roads, water works, power, etc. which are localized in nature, states could have a greater role. Greater marketisation of economies and private capital flows tend to look for conducive governance at the state-level where economic activities are located. Hence, the state governments are well advised to take dynamic policy-initiatives and it is in this background that the economists engaged at the state level have to play a crucial role in the reform-process. In fact, there is some evidence of a positive link between

* Presidential Address by Dr. Y.V. Reddy, Governor, Reserve Bank of India circulated in the Annual Conference of Andhra Pradesh Economic Association, on February 12, 2005 at Visakhapatnam.

education health and other public services and economic growth. Interestingly, most states which have done well in terms of investment and growth also have research institutes of repute in the area of social and economic sciences.

Needless to say that, in this background, I am delighted to deliver the Presidential Address at the Annual Conference of Andhra Pradesh Economic Association. In a conference of economists, it is appropriate to go by the principle of comparative advantage, and accordingly I decided to focus my comments on the core of my current professional as well as official preoccupation and talk on the monetary policy.

In its conduct of monetary policy, the central bank responds to the evolving economic activity within an articulated monetary policy framework. This framework would normally have three basic constituents, *viz.*,

- the objectives of monetary policy;
- the analytics of monetary policy focusing on the transmission mechanism; and
- the operating procedure focusing on operating targets and instruments.

For convenience, each of these issues has been dealt with separately and in this light, the Indian experience has been touched upon briefly.

Objectives

Traditionally, central banks have pursued the twin objectives of price stability and growth. Central banks have to keep in view the considerations of exchange rate stability and financial stability also in pursuing the basic objectives. Can we achieve these objectives all at a time? As in most aspects of life, the objectives of monetary policy are interrelated, and there are trade-offs as well. Illustratively, economists often talk of the Phillips curve according to which there is a short-run negative relation between inflation and unemployment. While there are various viewpoints on Phillips curve, in a world where the Phillips curve is valid, a central bank can reduce inflation only at the cost of having more unemployment. Similar trade-offs exist among other objectives as well.

Faced with multiple objectives that are equally desirable, there remains the problem of assigning to each policy instrument the most appropriate objective. Accordingly, there is a broad consensus, both in academic and policy circles, that

monetary policy is useful as an instrument to achieving the goal of price stability.

The adoption of price stability as the only objective of monetary policy is, however, by no means universal. While a number of prominent central banks including the European Central Bank, Bank of England and Bank of Japan have adopted price stability as the single objective of monetary policy, the Federal Reserve of the US continues to pursue multiple objectives of monetary policy, *viz*, a) maximum employment, b) stable prices, and c) moderate long-term interest rates. Central banks in several developing countries have placed exchange rate management as another important policy objective. In recent years, particularly after the financial crises of 1990s, the concern for financial stability is an integral part of the central bank's activism.

Analytcs of Monetary Policy

The process through which changes in the monetary policy get transmitted to the ultimate objectives like inflation or growth has come to be known as “monetary transmission mechanism”. Interestingly, economists often refer to the channels of “monetary transmission” as a black box – implying that we know that monetary policy does influence output and inflation but we do not know for certain how precisely it does so. Nevertheless, in the literature, a number of transmission channels have been identified: (a) the quantum channel (e.g., relating to money supply and credit); (b) the interest rate channel; (c) the exchange rate channel; and (d) the asset price channel. How these channels function in a given economy depends on the stage of development of the economy and its underlying financial structure. Illustratively, in an open economy one would expect the exchange rate channel to be important; similarly, in an economy where banks are the major source of finance (as against the capital market), credit channel seems to be a major conduit for monetary transmission. Besides, it needs to be noted that these channels are not mutually exclusive – in fact, there could be considerable feedbacks and interactions among them.

Central banks may not be in a position to directly achieve their ultimate objectives and hence, monetary policy is often formulated in terms of an intermediate target. For example, in a monetary targeting framework, a suitable monetary aggregate is considered as an intermediate target based on the basic relationship between money, output and prices. Exchange rate as an intermediate target can be suitable for small open economies, setting the exchange rate against a low-inflation

anchor country. This may, however, entail loss of independence in steering domestic interest rates.

In this context, it is necessary to touch upon what is known as the 'impossible trinity', or 'trilemma' of monetary policy. This refers to the incompatibility among three policy choices, *viz.*, (a) fixed exchange rate, (b) open capital account, and (c) independent monetary policy. The basic message of the 'trilemma' is that a central bank can achieve any two of the above-mentioned parameters, but not all the three. Illustratively, if a country wants to have fixed exchange rate and independent monetary policy then it is difficult to maintain an open capital account.

Another important issue in monetary policy is the extent of transparency. Central bankers all over the world are not exactly known for clarity in their language. Nevertheless, the rational expectations school in macroeconomics holds that no policy can be successful over a period by "fooling" the economic agents. In this context, one may differentiate between genuine uncertainties about the future *vis-à-vis* not revealing the expected outcome of the policy. In fact, since the 1990s, there has been a preference all over the world to improve the transparency of monetary policy.

In the context of improving transparency, the recent trend has been towards direct inflation targeting. Adoption of explicit inflation targeting as the final goal of monetary policy involves the preparation of an inflation forecast, which, in a way, serves the purpose of both an intermediate target and final objective. The prerequisites for inflation targeting include a considerable degree of operational autonomy or independence for central bank, flexible exchange rate conditions, well-developed financial markets and absence of fiscal dominance.

In view of the growing complexities of macroeconomic management, several central banks including the European Central Bank have placed reliance on a broad set of economic and leading indicators rather than focusing exclusively on an intermediate target or a direct inflation target. The Federal Reserve has traditionally been following a more broad based approach to the conduct of monetary policy in the US.

Operating Procedures: Instruments and Targets

Operating procedures refer to the day-to-day implementation of monetary policy by central banks through various instruments. These instruments can be

broadly classified into direct and indirect instruments. Typically, direct instruments include required cash and/ or liquidity reserve ratios, directed credit and administered interest rates. Cash reserve ratio (CRR) determines the level of reserves (central bank money or cash) banks need to hold against their liabilities. Similarly, liquidity reserve ratio requires banks to maintain a part of their liabilities in the form of liquid assets (e.g., government securities). Credit and interest rate directives take the form of prescribed targets for allocation of credit to preferred sectors/industries and prescription of deposit and lending rates.

The indirect instruments generally operate through price channel which cover repurchase (repos) and outright transactions in securities (open market operations), standing facilities (refinance) and market-based discount window. For example, if the central bank desires to inject liquidity for a short period, it could do so by providing funds to the banks in exchange of securities at a desired interest rate, reversing the transaction at a pre-determined time. Similarly, if the central bank desires to influence liquidity on an enduring basis, it could resort to open market operations (OMO), involving outright purchase (or sale) of securities.

While OMO including repo transactions operate at the discretion of the central bank, standing facilities provide limited liquidity which could be accessed by the eligible market participants (generally banks) at their discretion. Market-based discount window makes available reserves either through direct lending or through rediscounting or purchase of financial assets held by banks.

In practice, the choice between direct and indirect instruments is not easy. While direct instruments are effective, they are considered inefficient in terms of their impact on the financial market. On the other hand, the use and efficacy of indirect instruments depends on the extent of development of the supporting financial markets and institutions. These instruments are usually directed at attaining a prescribed value of the operating target. Central banks typically adopt either (a) bank reserves or (b) a very short-term interest rate (usually the overnight inter-bank rate) as the operating target.

The optimal choice between price and quantity targets would depend on the sources of disturbances in the goods and money markets. In reality, it often becomes difficult to trace out the sources of instability. Hence, monetary policy is implemented by fixing, at least over some short time interval, the value of an operating target. In a

single-period context, the choice of the level of the target amounts to setting a rule for monetary policy. However, in a dynamic context, their connection is less straightforward. Indeed, a deviation from a target could occur, either intended or unintended, which may impart an inflationary bias when monetary policy is conducted with discretion. In order to address such problems of dynamic inconsistency, rule-based solutions are emphasized in literature, e.g., monetary rule (changes in money supply at a pre-determined rate) and Taylor-type rule (changes in interest rate based on deviation of growth and inflation from their potential/desired levels). While a rule-based system imparts transparency, providing certainty about future policy response, it becomes ineffective in its response to unanticipated shocks given its inflexibility. In practice, therefore, central banks follow an approach of what has been best described as constrained discretion.

The operating procedures of monetary policy of most central banks have largely converged to one of the following three variants: (i) estimate the demand for bank reserves and then carry out open market operations to target short-term interest rates; (ii) estimate market liquidity and carry out open market operations to target the bank reserves, while allowing interest rates to adjust; and (iii) modulate monetary conditions in terms of both the quantum and price of liquidity, through a mix of open market operations, standing facilities and minimum reserve requirement and changes in the policy rate with the objective of containing overnight market interest rate within a narrow corridor of interest rate targets.

Indian Specifics

In this backdrop, let me now turn to the conduct of monetary policy in India.

What has been the objective of Indian monetary policy? The preamble to the Reserve Bank of India Act, 1934 sets out the objectives of the Bank as “to regulate the issue of Bank notes and the keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage”. Although there is no explicit mandate for price stability, as is the current trend in many countries, the objectives of monetary policy in India have evolved as those of maintaining price stability and ensuring adequate flow of credit to the productive sectors of the economy. In essence, monetary policy aims to maintain a judicious balance between price stability and economic growth. The relative emphasis between price stability and economic growth is governed by the prevailing

circumstances in a particular time and is spelt out from time to time in the policy announcements of the Reserve Bank.

Of late, considerations of financial stability have assumed greater importance in view of increasing openness of the Indian economy and financial reforms. In the Indian context, financial stability could be interpreted to embrace three aspects, *viz.*, (a) ensuring uninterrupted financial transactions, (b) maintenance of a level of confidence in the financial system amongst all the participants and stakeholders, and (c) absence of excess volatility that unduly and adversely affects real economic activity. It is the endeavour of the Reserve Bank to ensure all these aspects of financial stability.

As far as the conduct of monetary policy is concerned, it may be noted that monetary policy in India used to be conducted till 1997-98 with broad money (M_3) as an intermediate target. The aim was to regulate money supply consistent with two parameters, *viz.*, (a) the expected growth in real income, and (b) a projected level of inflation. On the basis of estimates of these two crucial parameters, the targeted monetary expansion could be set. In practice, the monetary targeting framework was used in a flexible manner with feedback from developments in the real sector. However, questions were raised about the appropriateness of such a framework with the changing inter-relationship between money, output and prices in the wake of financial sector reforms and opening up of the economy. The Working Group on Money Supply (1998) sought to address some of these issues. The most significant observation of the Group was regarding the changing nature of transmission mechanism as it highlighted that the interest rate channel was gaining in importance.

In line with this thinking, since 1998-99, the Reserve Bank has switched over to a multiple indicator approach. As per this approach, interest rates or rates of return in different markets (money, capital and government securities markets), along with data such as on currency, credit extended by banks and financial institutions, fiscal position, trade, capital flows, inflation rate, exchange rate, refinancing and transactions in foreign exchange available on high-frequency basis, are juxtaposed with output for drawing policy perspectives.

What is the operating procedure of monetary policy in India? In the current monetary policy framework, with growing inter-linkages in the financial market, reliance on direct instruments has been reduced and liquidity management in the

system is carried out through OMO in the form of outright purchases/sales of government securities and daily reverse repo and repo operations under Liquidity Adjustment Facility (LAF). The LAF has enabled the Reserve Bank to modulate short-term liquidity under varied financial market conditions, including large capital inflows from abroad. In addition, it has enabled the Reserve Bank to set a corridor for the short-term interest rates consistent with the policy objectives. This has also facilitated bringing down the CRR of banks without engendering liquidity pressure. These operations are supplemented by access to the Reserve Bank's standing facilities. In this new operating environment, changes in reverse repo and/or the Bank Rate have emerged as interest rate signals.

There is no explicit interest rate target envisaged in India. Nevertheless, a great deal of reliance has been placed in recent years on interest rates and exchange rates in the day-to-day conduct of monetary policy. In the context of increasing openness of the economy and a market-determined exchange rate, the large capital inflows witnessed in recent years have posed major challenges to the conduct of monetary and exchange rate management. A critical issue in this regard is a view on whether the capital flows are temporary or permanent in nature. The recent episode of large capital flows prompted a debate in India on the need for exchange rate adjustment. In a scenario of uncertainty facing the monetary authorities in determining temporary or permanent nature of inflows, it is prudent to presume that such flows are temporary till they are firmly established to be of permanent nature.

The liquidity impact of large inflows was managed till the year 2003-04, largely through the day-to-day LAF and OMO. In the process, the stock of government securities available with the Reserve Bank declined progressively and the burden of sterilization increasingly fell on LAF operations. In order to address these issues, the Reserve Bank signed in March 2004, a memorandum of understanding (MoU) with the Government of India for issuance of Treasury Bills and dated government securities under the Market Stabilisation Scheme (MSS). The intention of MSS is essentially to differentiate the liquidity absorption of a more enduring nature by way of sterilisation from the day-to-day normal liquidity management operations. The ceiling on the outstanding obligations of the Government under MSS has been initially indicated but is subject to revision through mutual consultation. The issuances under MSS are matched by an equivalent cash balance held by the Government in a separate identifiable cash account maintained and operated by the Reserve Bank. The

operationalisation of MSS to absorb liquidity of more enduring nature has considerably reduced the burden of sterilisation on the LAF window.

In its monetary operations, the Reserve Bank uses multiple instruments to ensure that appropriate liquidity is maintained in the system so that all legitimate requirements of credit are met, consistent with the objective of price stability. Towards this end, the Bank pursues a policy of active management of liquidity through OMO including LAF, MSS and CRR, and using the policy instruments at its disposal flexibly, as and when the situation warrants.

Way Ahead

Conduct of monetary policy is complex. It has not only to be forward looking but also to grapple with uncertain future. Additional complexities arise in the case of an emerging market like India, which is transiting from a relatively closed to a progressively open economy. In an environment of increasing capital flows, narrowing cross-border interest rate differentials and surplus liquidity conditions, exchange rate movement tends to have linkages with interest rate movements. The challenge of a monetary authority is to balance the various choices into a coherent whole and to formulate a policy as an art of the possible.

Let me now conclude by wishing this Conference all success.