MONETARY POLICY : SOME QUESTIONS ANSWERED

Special Lecture by

Dr. C. RANGARAJAN
Governor, Reserve Bank of India

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1. In my lecture this morning, I would like to deal with some of the questions that have been raised on the role and conduct of monetary policy in India. In the recent years there has been a growing interest among the academicians, professionals and policy makers in India on the role that monetary policy can play in achieving growth with stability. In fact, this debate is not unique to India. World over there has been a renewed public interest in the objective and working of monetary policy. This has partly stemmed from the resolve by several countries to control inflation through monetary policy. No longer are inflation control policies regarded as inimical to growth. Rather, a low inflation rate is being increasingly regarded as an essential condition for improving the growth and productivity potentials of the economics. These developments have led to a rapid change of public perception regarding the beneficial effects of price stability for the economy and a distinct recognition of the role of monetary policy in controlling inflation and creating conditions for sustainable growth.

2. Despite the changing perception about the role of monetary policy, there is nevertheless no general agreement on some critical issues that the central banks world over have to cope with in their task of managing the internal and external value of money. Both in periods of expansion and contraction, monetary policy has been in the centre stage of controversy. It is also precisely these debates that have contributed to the strengthening and reorientation of monetary policy goals and to changes and innovations in the instruments of monetary policy.

As a person who has spent a large part of professional life in research and practice of monetary policy, I have a natural interest in revisiting the questions that have been raised and examining their relevance to the conduct of monetary policy in India. I have, accordingly, selected the title of this lecture.

3. In the past few years, monetary policy has moved into a strategic position in the Indian economy, as a result of several reform initiatives undertaken in the financial sector, particularly in areas such as policy setting, institutional arrangement and regulatory framework. While the overall policy environment in which monetary policy is conducted has undergone a rapid change, so has the context of the policy itself and the expectations regarding what monetary policy can do to bring about a change in economic prospects. The developments in the recent years also show that we have been able to contain the inflationary pressures in the Indian economy, while maintaining a sustained improvement in growth. The growth rate in the real GDP which exceeded 7 per cent successively for two years in 1994-95 and 1995-96, was again close to that figure in 1996-97. It is during this period, that a substantial improvement has also taken place in the price situation, with the annual rate of inflation (as measured by Wholesale Price Index) declining steeply from 10.9 per cent in 1994-95 to 7.8 per cent and 6.4 per cent in 1995-96 and 1996-97, respectively. The price situation has shown a much stronger improvement in 1997-98, as the inflation rate as on August 16, 1997 reached 2.9 per cent on an average basis and 3.8 per cent (annualised) on a point-to-point basis. This is the lowest inflation rate recorded in the Indian economy during the past several years. Even after accounting for certain changes in administered prices, the price increase will still be in a modest range.

4. Even while we have made steady progress on the inflation and growth fronts, several questions and concerns have been raised on the objectives and workings of monetary policy. One of the important concerns which has been raised in this context is whether monetary policy has maintained a favourable condition for achieving the desired acceleration in growth momentum. An issue like this raises a whole lot of questions such as : What should be the objectives of monetary policy? What intermediate target should be adopted by the central bank to achieve the monetary policy objectives? What are the inter-relationships among money, output and prices and how strong and stable are these empirical estimates in India? and what should be the appropriate inflation rate which the economy should seek to achieve? Since my presidential address at the Conference of Indian Economic Association at Calcutta in December 1988, I have on many occasions re-examined these questions, against the background of the theoretical development and the experiences of our and other countries. I propose to go over some of these issues again with some recent evidences and reflect upon the current objectives of monetary policy in the context of the concerns that have been expressed in this regard.

I. What should be the objectives of Monetary Policy?

5. The first and foremost of several questions that have been raised relates to the objectives of monetary policy. Like any other arm of economic policy, monetary policy pursues the same set of national goals such as growth, price stability and social justice. It is a well known proposition in economic policy that there should be as many instruments as there are objectives if all the objectives are

to be fulfilled. Faced with multiple objectives that are equally relevant and desirable, there is always the problem of assigning to each instrument the most appropriate target or objective. This assignment rule favours monetary policy to pursue the objective of price stability as the most dominant objective.

1. Should Price Stability be the only objective of Monetary Policy?

6. It is important to note that commitment to price stability does not mean a blind faith in maintaining a certain level of inflation, without concern for the need to maintain and accelerate growth. Far from it, in no country in the world has this been so. The commitment to maintain price stability essentially stems from the concern to achieve the objective of promoting economic development on a sustainable basis. Opinions, however, start to differ when growth and price stability are seen as two competing objectives of monetary policy. This raises an important question : Is there a 'trade-off' between growth and price stability? Let me deal with this question in four stages - what causes inflation? Does price stability affect growth? What are the inflation costs? What are the necessary conditions to sustain high rates of growth and the role that monetary policy can play to help realise this objective?

(a) *What causes inflation?*

7. First, and perhaps the most logical question to addres is what causes inflation and whether it is a monetary phenomenon. In a monetary economy, where each single transaction is valued in terms of the unit of national currency, it is nothing but a truism to say that money

supply has a role in determining the price level in the economy. It is also true that changes in price level are caused by several other factors, which influence the cost structure of firms. However, a continuous pressure on prices, which is what inflation is all about, cannot be sustained, if there is no accommodating increase in money supply. It is in this sense that inflation is a monetary phenomenon. I would, however, add three important qualifications to this statement. First, there could be a variable lag between the time a monetary change is initiated and the time its ultimate impact on prices and output is felt. The length of this lag is determined by the inherent dynamics in the real sector and the speed with which economic agents adjust to a change in monetary situation. Therefore, a monetary shock may take several months to express itself on prices and output. Second, it is also essential to differentiate between a relative price change and its immediate impact on overall price situation, on the one hand, and the presistent increase in prices on the other. The former effect can be caused by a sudden shock to the cost structure of a firm, which may raise the price of its product relative to others, causing some reallocation of resources and at the same time raising overall price level in the economy to some extent. However, given the size of nominal demand, which is largely determined by the growth of real income and the money supply, a relative price shock cannot cause a sustained increase in the overall price level in the economy. For this to happen, it would require a concomitant increase in money supply. This is the reason why the overall price effect of an increase in administered price tends to be higher when monetary policy is already slack and there exists an inflationary pressure in the economy. It is therefore, important to recognise that from the medium to long run perspective, controlling money supply growth becomes integral to contain inflationary pressure in the economy. As John Crow, the former Governor of Bank of Canada has once noted -

"The reason Central Banks persistently focus on inflation, monetary aggregate targets or no is not that they view inflation as the only significant economic issue facing modern industrial states. Far from it. More reasonably, they take the considered view that what they are unavoidably responsible for - managing primary liquidity and in that crucial sense in creating money - will in the end also be the crucial factor in what happens to inflation, and that good inflation performance is a plus for the economy as a whole."

8. Third, the effectiveness of monetary policy in causing an impact on price level also depends on inflation expectations. For example, while the expansionary effect of fiscal policy will not persist for long without an accommodating increase in money supply, the interest rate effect may, however, get sustained, giving rise to inflation expectations, and thereby adversely affecting the effectiveness of monetary policy to fight inflation.

(b) *Does price stability affect growth ?*

9. Coming to the 'trade-off' between price stability and growth, it is essential to recognise the nature of relationship between inflation and growth in an economy and then see how far and under what circumstances monetary policy can make a lasting impact on growth. By now, it has been well recognised that there is no long run 'trade-off' between inflation and growth. The well known Phillips curve which became the centre of discussino of such a 'trade-off' in the 1950s and 1960s has been theoretically and empirically invalidated in many countries, since the

onset of a prolonged period of stagflation in the 1970s. This is, however not to say that there is no relation between inflation and growth. The 'trade-off' is seen to exist at best in the short run. Given the slow pace of adjustment between peoples' expectation about certain events and their actual occurrences, there is always a possibility of a short run 'trade-off' between inflation and unemployment. But since there are obvious long run implications of such an option, it is important to differentiate the nature of unemployment which can be most effectively addressed by monetary policy. There is a general consensus that monetary policy can not be of much help in removing structural unemployment in the economy. However, monetary policy can make the cyclical employment situation better, by pursuing counter-cyclical demand management strategy. This is essentially the stabilisation objective of monetary policy, and has an important role to play in any economy for the management of aggregate demand level.

10. Empirical research on inflation and growth linkage in the cross country setting though not conclusive leads to a general finding that inflation adversely affects growth in the long run and its impact is stronger beyond a threshold inflation. Stanley Fischer's study of inlation and growth performance of a large number of countries based on panel regression reports that "The evidence points strongly to a predominantly negative long term relationship between growth and inflation". The estimates presented by Fischer show that a 10 percentage point increase in inflation rate resuls in 0.4 percent decline in output growth per annum and 0.18 per cent decline in productivity growth. Another recent study by Robert Barro reinforces this finding. His estimates show that an increase in inflation rate of 10 percentage points in each year during

the period 1960-1990 on the average resulted in decrease in per capital real GDP growth by 0.2 - 0.3 percentage points per annum and a decline in the investment ratio to GDP by 0.4 to 0.6 percentage points. He shows that over a long time period of 30 years, a 10 percentage point permanent increase in the inflation rate is estimated to bring down the level of real GDP by 4 to 7 per cent. A comparison of inflation and growth performance of six fastest growing countries viz., China, Thailand, Malaysia, Singapore, Korea and Indonesia during 1990s so far showed a mean growth rate of 8.4 per cent during 1990-94 and a mean inflation rate of about 6 per cent.

11. It is important to note that while an increase in money supply beyond what is consistent with the growth in real income, could improve the credit availability, reduce the interest cost and promote investment and growth in the short run, the impact cannot persist for a long period. The ultimate effect will be a rise in inflation rate. A recent macroeconometric model for the Indian economy for the period 1970-71 and 1993-94, stimulated by us shows that an increase in investment spending financed by money creation while has a positive effect on output, this effect is significant only in the short run[1]. In the long run prices rise at a fast rate. A 10 per cent sustained increase in public investment in the non-agricultural sector over the reference simulation financed by an increase in net RBI credit to Governement increases the money supply by 5.3 per cent, real capital stock in non-agricultural sector by 1.0 per cent, price level by 1.3 per cent and real income by 0.7 per cent, on an average, during the first

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C. Rangarajan and M. S. Mohanty (1997) : "Fiscal deficit and External Imbalance - A macro econometric Model of the Indian Economy", Working Paper, Reserve Bank of India.

two years of the shock. In a span of 18 years, the average rate of increases in price level accelerates to 18.1 per cent, while output growth averages around 2.7 per cent showing the severe inflationary outcome of this policy option. Moreover, there is also an adverse external implication of this financing policy, as it leads to a deterioration in the current account deficit in the balance of payments through import leakage and loss of competitiveness of exports. What this policy scenario implies is that a high and disproportionate growth in money supply, whatever may be its origin, will in the long run, worsen both the internal and external balance in the economy. This needs to be weighed against the 'trade-off' that it may have in terms of output gain in the immediate short run.

(c) *What are the costs of inflation?*

12. The various costs that inflation imposes on the economy need to be evaluated for a proper assessment of the consequences of inflationary financing growth. Inflating the economy on a continuous basis for a hoped for additional gain in output provides only a partial view of the 'trade-off' argument. It is also important to evaluate the economic and social costs of inflation, which constitute yet another aspect of 'trade-off'. Inflation imposes uncertainty costs, distorts relative price signals, leads to misallocation of resources, affecting savings and capital formation, and causes dynamic deterioration in government balanace. It also has a huge social cost, on account of its adverse impact on the real income of the poor who are largely unprotected from price rises. The adverse distributional implications of even a moderate inflation is significantly high in India compared to the output gains of inflation. This underscores the importance of the social dividends of a low and stable price environment

which have far greater ramifications than the perceived benefits of inflation. Any serious debate on inflation and output 'trade-off' cannot ignore the various costs of inflation, which though invisible are huge and have adverse implications for growth and productivity in the economy.

(d) ***What are the conditions for sustaining high rates of economic growth and how can these be helped by monetary policy?***

13. In the recent years, there has been a growing realisation in both developed and developing countries that long run growth constrainsts are largely the outcome the structural rigidities in the economic system which distort incentives and price signals and promote inefficiency. The experience of some of the fast growing East Asian economies as well as some developed economies demonstrate that micro level reforms targeted at removing specific structural rigidities, a macro-policy environment aiming for increased competition, technological upgradation, a proper incentive structure and a stable price environment play a crucial role in achieving and sustaining high rates of growth. In today's world, the nature of the working of economies has changed radically due to the pressure of competition and globalisation. This has made firms extremely conscious of price competition. Since firms, workforce and countries compete at the margin, public policies for providing a stable background to the economy have assumed a critical importance for promoting growth and productivity. These developments have made the countries, across the world, more conscious of the hidden costs of inflation and their adverse implications for growth. Perhaps the single most important contribution that monetary policy can make under these conditions is to maintain a low and stable rate of inflation that would provide the necessary condition for

promoting competition, efficiency and growth in the economy.

14. In a resource constrained economy like ours, monetary policy would also have to play an active role in ensuring adequate flow of credit to the essential sectors of the economy. Since by now the restrictions on banks in the matter of credit flows have been by and large removed, cash reserve ratio on banks has been substantially reduced and the corporate sector has started accessing funds from domestic and global capital markets in a big way, the industrial sector no longer comes under the credit-constrained behaviour. Under this environment monetary policy is expected to work through the cost of credit in promoting the expansion of credit and overall investment activity in the economy. Indeed, this has remained the focussed objective of the recent monetary policy initiatives which made interest rate as a signalling device; provided a free hand to commercial banks in the determination of lending rates and substantially improved the liquidity condition in the economy, with a view to bringing down the level of interest rate. Responding to these initiatives, the prime lending rates of commercial banks came down steadily from the level of 17 per cent in 1993-94 to the lowest of 13.5 per cent by mid-August 1997. The interest rate in Government security market has also seen a significant reduction, with the 364-day Treasury bill rate declining by as much as nearly 5 percentage points between April 1996 and mid-August 1997 and that on longest dated securities showing a reduction on 2.5 percentage points between March 1996 and August 1997.

15. It is important to note that interest rate responds to several factors and the nominal interest rate comprises of three important elements (1) real interest rate, (ii) inflation

expectations, and (iii) a discount factor for uncertainties. In this sense real interest rate is not an observed variable. Real interest rate is influenced by several long-term factors such as saving and investment balance in the economy and the rate of return on capital. The effectiveness of monetary policy to bring down the nominal interest rate will depend on the impact that this policy will have on inflation expectations and on the perception of uncertainty in the economy. As the experience of many countries have shown, expansion in money supply to bring down interest rate leads to the hardening of the nominal interest rate due to a rise in inflation and inflation expectations. This is not to say that interest rate cannot and should not be influenced by monetary policy. It can and will be. But the essential point to note is that the only enduring way of bringing down the nominal interest rate is by keeping the inflation rate low.

2. Should we be concerned with Fiscal Deficit in the Management of Inflation and Interest Rate?

16. There is a close link between fiscal and monetary policy. These two mojor instruments of economic poicy have to work in tandem with each other. A tight monetary policy along with a lax fiscal policy can lead to many distortions in the economy. This has been the experience of many countries. I do not want to go into the question of what the appropriate level of fiscal deficit should be in our country. However, it is fallacious to argue that the level of fiscal deficit does not matter. It has many implications for the conduct of monetary policy. A high level of fiscal deficit apart from whatever crowding effect it may have on private investment also pushes up the interest rate. The fiscal deficit of the Centre and the States taken

together was a bout 7.1 per cent of GDP in 1995-96. In that year, the household sector saving as a proportion of GDP was 19.5 per cent. Investment in financial assets was 8.8 per cent of GDP. Thus a very high proportion of savings of the household in the form of financial assets gets diverted to the government sector. When the competition from the corporate sector for funds was very limited, this did not matter. However, in a situation in which the private sector's demand for household savings also keeps increasing, a higher fiscal deficit puts pressure on the available resources leading to a rise in the rate of interest. Obviously a higher level of savings could solve the problem but given a certain level of saving it is inevitable that rising fiscal deficit will have the effect of pushing up the interest rate. The argument that borrowing for capital expenditures on the part of the Government should not cause concern is valid only if the earnings out of the assets created are at least equal to the rate of interest. If the revenue receipts of the Government do not rise either directly or indirectly as a consequence of the creation of the assets, it tends only to increase the revenue deficit. Interest payment as a proportion of revenues is rising thus pre-empting increasingly larger proportion of revenue. Apart from the basic question as to what the appropriate level should be, it must also be noted that it is becoming increasingly difficult to place in the market the growing borrowing requirement of the Government. What is relevant is the level of gross borrowing rather than net borrowing because of the large repayments arising out of the debts incurred in the past. For example, in the current year, 1997-98 while the net borrowings of the Central Government was Rs. 33,820 crore the gross borrowings amounted to Rs. 52,963 crore in view of the large repayments.

II. What should be the appropriate rate of inflation?

17. The on-going macro economic reform process has underlined the importance of maintaining price stability in the economy in the context of the significant degree of openness achieved in the Indian economy, both in terms of external orientation and liberalisation of domestic financial sector. Exercising proper maneuverability over interest rate would require that not only inflation rate is kept at a low level, the degree of its variability is also minimised for dampening the adverse inflation expectations. There is also a considerable concern now to align domestic inflation with those of our trading partners to prevent the erosion of our competitive position. Maintenance of fiscal sustainability is also conditional on price stability because of the dynamic implications of inflation for the interest rate, fiscal deficit and the debt servicing burden in the budget.

18. In the emerging economic environment, we cannot be complacent on the price front. It is well recognised that adverse implications of inflation are higher at high rates of inflation while a moderate inflation rate could be manageable without implying severe costs. In the recent years, most of the major industrialised countries have moved over to an inflation rate range of 1 to 3 per cent. Some have even reached or targeted zero inflation rate. At this stage we are not prepared for either zero or a low inflation rate of 1 to 3 per cent. It is also important to recognise that negative costs of inflation are high both in the extremely low and high inflation spectrum. We should, nevertheless, seek to restrict the inflation rate to a manageable level from the view point of ensuring reasonable degree of price stability as well as

'greasing the wheels of the economy'. Restricting inflation rate in the range of five to six per cent is the goal we should seek to achieve.

III. What should be Targeting Framework for Monetary Policy?

19. Given the basic goal of the central bank to maintain price stability, an important question arises as to what should be the intermediate target chosen to influence inflation rate? It is even asked whether an intermediate target or any target as such is required for such a purpose? While it is entirely conceivable not to have any formal target, it is practically impossible to pursue the monetary policy goals without an announced target. A monetary policy target, whether intermediate or final, carries important signals to the market, conveys the monetary policy stance in unambiguous terms and helps anchoring inflation expectation in the economy. On the question of whether to have an intermediate target there is no standard answer since the choice is dependent on the country specific situation and the kind of relationship between various monetary indicators and inflation rate. In the west, several countries have switched over from intermediate monetary target to final inflation target because of the observed instability of the demand function for money, leading to uncertain relation between monetary aggregates and inflation rate. There are two types of criticisms which have been often cited against the targeting of monetary aggregates. First is the explanation provided by the Goodhart's law that "any observed statistical regularity will tend to collapse once pressure is placed upon it for control purpose". This is an extension of the famous Lucas critique which implied that people's

optimal decisions are influenced by the policies themselves, leading to unstable economic relations, but consistent policy rules will provide stable economic behaviour. The Goodhart's law poses only an empirical question whether money demand function is reasonably stable for it to be useful to predict inflation rate? Second, the other limitation of the monetary targeting approach pointed out by many is that financial innovations have radically changed the portfolio behaviour of economic agents, leading to a breakdown of the relation between monetary aggregates and inflation rate.

20. In India, our experience shows that money demand function is a stable function of select variables and it can be used to reasonably predict inflation. Several statistical functions of the demand for money estimated by using the equilibrium and disequilibrium analysis provide overwhelming evidence on the long run stability of the money demand function. A recent study conducted by the Development Research Group (DRG) of Reserve Bank of India which specifically tested the impact of financial deregulation in the Indian economy on the demand for money in the cointegration framework stated that "there exits a long run relationship between money and its determinants namely exchange rate, interest rate, inflation rate and real output"[2]. Another study conducted by DRG stated that "cointegration tests confirm that broad money stock, output and prices have stable longrun linkages. Disequilibrium analysis highlights the inherent tendency of money demand to revert to its steady state. In comparison to notorious missing money experienced in the Western countries, money demand in India has

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[2] Askok Parikh (1994) "An approach to Monetary Targeting in India", Development Research Group Study No. 9, Reserve Bank of India.

been less volatile"[9] Other researchers have also reached similar conclusion using different specifications, sample periods and data frequency [for example Nag and Upadhyay (1993) and Joshi and Saggar(1995), in Reserve Bank of India Occasional Papers]. The extent and pace of financial innovation in India are not that wide and deep as in the industrial countries to affect the stability of money demand behavior. The concept of monetary targeting that we have been using is a flexible one which takes into account various fed-back effects. Money supply target is relatively well understood by public and provides unambiguously the stance of monetary policy. It is also important to note that while a target range for M3 growth provides the annual or medium term context of monetary policy, Reserve Bank will need to watch closely the behaviour of interest rates in the various markets. In fact, with the inflation rate coming down and remaining in a narrow range, it becomes possible to focus on interest rate along with overall monetary growth.

IV. Conclusion

21. There is a certain continuity in the philosophy underlying the conduct of monetary policy in India. Even in the Sixties and Seventies, the monetary authorities used to describe the policy as one of "controlled expansion". What it implied was that while expansion was welcome, it had to be regulated. In the present day terminology, it could be interpreted to imply that the expansion had to be consistent with the actual or expected growth in the

R. R. Arif (1996) : Money Demand Stability : Myth or Reality - An Econometric Analysis", Development Research Group Study, No. 13, Reserve Bank of India.

economy. As it has been mentioned very often, the two broad objectives of monetary policy in India have been (a) to maintain a reasonable degree of price stability by regulating money supply and (b) to ensure adequate growth of credit to meet the productive requirements of the economy. The emphasis as between the two objectives has changed from year to year depending upon the conditions prevailing in that year or in the previous years. However, these two goals have been the broad concerns underlying the conduct of monetary policy in all years. Studies have clearly shown that the relationship among money, output and prices holds good not within the framework of a single year but over a period of time. These studies clearly indicate that if over a period of time money supply is regulated in a manner consistent with the real rate of growth, reasonable degree of price stability can be achieved. In fact, the moderation in price increase seen in the recent period is a vindication of the policy of regulating money supply consistent with real growth. It would be wrong to attribute the current decline in price to weakening of demand. What is relevant in terms of general price level is monetary demand and one of the important factors determining the level of monetary demand is growth in money supply. While money supply growth can be to some extent counter cyclical, what is relevant is a to ensure that the rate of growth in money supply during any period of time bears a definite relationship to increase in real output. Ensuring stability requires the pursuit of a consistent policy over a period of time. This may at times make the central bankers unpopular. But this is a cross they have to bear. The need to take a view which is not short term has indeed been one of the arguments advanced for greater autonomy for central banks.