Evolving Contours of Monetary Policy

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Monetary policy has emerged as an important tool of economic policy both in developed and developing economies. The monetary and financial system is far more complex today than it has been in the past. Financial intermediation has reached a high level of sophistication, which has itself become a source of concern. The impact of monetary policy action can be transmitted through a variety of channels, some of which though recognised in the past, have become more important. While the traditional issues such as the objectives of monetary policy and the possible trade-off among them remain relevant, they need to be related to the far-reaching changes in the institutional environment at home and abroad. The changing objectives of monetary policy, newly evolving instruments of monetary control and the transmission mechanism and issues related to autonomy in the pursuit of monetary policy are examined.

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Monetary policy continues to remain as an important tool of economic policy both in developed and developing economies. It is clear that the challenges for monetary policy have been changing over time, even though some basic issues have remained of perennial concern. As the institutional environment both domestic and global changes, the tasks of monetary policy also undergo a change. The monetary and financial system is far more complex today than it has been in the past. Financial intermediation has reached a high level of sophistication, which has itself become a source of concern in recent days. The menu of financial products available has expanded enormously. All these changes have an important role to play in relation to the transmission mechanism. The impact of monetary policy action can be felt through a variety of channels, some of which though recognised in the past, have become more important. The speed with which funds can move across borders has raised issues regarding the coordination of monetary policies among countries. While the traditional issues such as the objectives of monetary policy and the possible trade-off among them remain relevant, they need to be related to the far-reaching changes in the institutional environment at home and abroad.

Monetary policy has had its ups and downs in post-World War II period. In industrially advanced countries, after decades of eclipse, monetary policy re-emerged as a potent instrument of economic policy, in the fight against inflation in the 1980s. Issues relating to the conduct of monetary policy came to the forefront of policy debates at that time. The relative importance of growth and price stability as the objective of monetary policy as well as the appropriate intermediate target of monetary policy became the focus of attention. The recent churning of the financial system has raised several new questions not only with respect to the objectives but also to the role of money itself in monetary policy. A similar trend regarding monetary policy is discernible in developing economies as well.

Trends in India's Monetary Policy

The evolution of India's monetary policy reflects the changing concerns over the last seven decades. In the first three decades after independence, the primary concern of the government was to get the plans implemented. Fulfilment of plan targets was the dominant objective and all policy instruments including monetary policy, were tuned towards that goal. The Reserve Bank of India (RBI) played a major role in widening the financial infrastructure by creating new institutions. Allocation of credit consistent with plan priorities also became a major concern. In

terms of monetary policy, planners talked of non-inflationary deficit financing. For example, according to the First Five Year Plan document,

> Judicious credit creation somewhat in anticipation of the increase in production and availability of genuine savings has also a part to play. (Planning Commission 1952)

Jawaharlal Nehru's letter to Governor Rama Rau while accepting his resignation was clear. It indicated that government was the dominant partner and that the role of the RBI was to abide by the larger concerns of the government. So long as inflation was moderate, this approach did not matter. But in the 1970s, inflation touched unacceptable levels and the growth of money supply had to be reined in.

The 1980s saw a continuous "battle" between the RBI and the Ministry of Finance on the control of inflation and the need to contain fiscal deficit, and more particularly, its monetisation. Though this period recorded an average annual growth rate of little over 5%, the growth path was uneven. The average inflation rate was close to 7%. The annual M3 growth rate was 17%. The Chakravarty Committee which submitted its report in 1985 emphasised the need for regulation of money supply and wanted the money supply growth to be consistent with real growth and acceptable level of inflation (RBI 1985). It also emphasised the need for the close coordination between monetary policy and fiscal policy because money supply growth was driven by reserve money and the most important factor determining the creation of reserve money was RBI's credit to the government. Thus, the committee envisaged a scheme of what came to be described as flexible monetary targeting.

Even though the government accepted in principle the recommendations, the latter part of 1980s still saw a higher fiscal deficit and higher money supply growth. All these landed us in the crisis of 1991. The early 1990s saw as a part of the liberalisation programme, far-reaching changes in the way the central bank was functioning. By doing away with the issue of ad hoc treasury bills, the automatic monetisation of fiscal deficit came to an end. By moving to a market-determined rate of interest, government securities became marketable and it has enabled the emergence of open market operations as an instrument of credit control. The dismantling of the administered structure of interest rate enabled the rate of interest to emerge as a policy variable. The RBI was deeply concerned with price stability as a dominant objective of monetary policy, and therefore, regarded regulation of money supply as a key factor in monetary policy. Post 1997, the RBI adopted the approach of multiple indicators. But the issues connected with multiple objectives remained the same as before.

In the years before and after 2008 crisis, the RBI focused on financial stability and acted, in fact, well in anticipation of the international crisis. In 2016, the RBI moved to a new monetary policy framework which may be described as one of flexible inflation targeting. The interest rate (repo rate) became the operating target. Moving to the new policy framework clarified the objective of monetary policy. But the RBI has still to contend with many other issues with respect to monetary policy. The question of when to raise or lower the interest rate will always be a contentious issue. Discussions on monetary policy post the new framework are not dissimilar from the issues discussed earlier.

Enunciation of Objectives

In any monetary policy framework, a key ingredient is the enunciation of its objectives as its actions are guided foremost by the objectives. A recurring question in this context is whether monetary policy should be concerned with all the goals of economic policy. The issue of "objective" has become important because of the need to provide a clear guidance to monetary policymakers. Indeed, this aspect has assumed added significance in the context of the increasing stress on the autonomy of central banks. Autonomy goes with accountability and accountability, in turn, requires a clear enunciation of the goals. Thus, an accountable central bank is one with clearly articulated and publicly stated objectives.

The various enactments setting up the central banks normally specify the goals of central banks. The Federal Reserve Act in the United States (US) requires the central bank to conduct monetary policy

> so as to promote effectively the goals of maximum employment, stable prices and moderate long term interest rate. (Federal Reserve System 2016)

Even though the act lists three distinct goals, the authorities have always treated the mandate as the "dual mandate" as the third mandate on interest rate was treated as implicit in the first two mandates. The European Central Bank (ECB) is most categorical about priced stability as the primary objective. The relevant article specifies

> the primary objective of the ESCB shall be to maintain price stability. Without prejudice to that objective, it shall support the general economic policies in the Union in order to contribute to the achievement of the latter's objectives. (European Central Bank 2013)

The RBI Act in its original preamble requires the RBI to conduct its operations

> with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage. (RBI 1934)

This was subsequently expanded in 2016 by an amendment. Most central bank legislations are not helpful in clearly charting out the path that a central bank should pursue as a multiplicity of objectives mentioned in the legislation tends to obfuscate the issue. In the last few decades, most central banks in the industrially advanced countries have accepted price stability as the most important objective of monetary policy (Fischer 1996). According to Eldie George, former Governor of Bank of England,

> It is true that most central banks at least would traditionally have regarded controlling inflation as a core responsibility. In some cases—most famously in the case of Bundesbank—the duty of preserving the value of the currency has long been written into the central bank's statutes. But what is remarkable today is the extent of the international consensus on effective price stability—in the sense of eliminating inflation as a factor in economic decisions—as the immediate aim of monetary policy. (George 1996)

This is clearly built into the mandate of the ECB. Post-2008 financial crisis, central banks in industrially advanced countries

are groping their way to integrate with other objectives, the objective of financial stability.

In talking of the objectives of monetary policy in India, I had said on an earlier occasion that

> In a broad sense the objectives of monetary policy can be no different from the overall objectives of economic policy. The broad objectives of monetary policy in India have been: (1) to maintain a reasonable degree of price stability and (2) to help accelerate the rate of economic growth. The emphasis as between the two objectives has changed from year to year, depending upon the conditions prevailing in that year and in the previous year. (Rangarajan 1998a)

In fact, what I had said was a version of the Taylor's rule in its most discretionary form.

The choice of a dominant objective arises essentially because of the multiplicity of objectives and the inherent conflict among such objectives. Faced with multiple objectives that are equally relevant and desirable, there is always the problem of assigning to each instrument the most appropriate objective. This "assignment rule" favours monetary policy as the most appropriate instrument to achieve the objective of price stability. The fundamental reason to adopt price stability as the dominant objective is that inflation is economically and socially costly. While attempts have been made to estimate the economic costs, the social costs are difficult to estimate. Quite clearly inflation hits harder the poor than the rich. Of course, policymakers also need to take into account the cost of output loss flowing from a disinflationary policy.

Trade-off between Growth and Price Stability

A crucial issue that is being debated in India as elsewhere is whether the pursuit of the objective of price stability by monetary authorities undermines the ability of the economy to attain and sustain high growth. A considerable part of the relevant research effort has been devoted to the trade-off between economic growth and price stability. Empirical evidence on the relationship between growth and inflation in a cross-country framework is somewhat inconclusive because such studies include countries with an inflation rate as low as 1% to 2% to those with inflation rates going beyond 200% to 300%. These studies, however, clearly establish that growth rates become increasingly adverse at higher rates of inflation (Sarel 1996; RBI 2002).

The trade-off between price stability and economic growth has also been discussed in the framework of labour and output markets. The well-known Phillip's curve postulated an inverse relationship between unemployment and wage rate. Several economists have challenged the basic microeconomic underpinning of the wage and price mechanism that leads to the possibility of trade-off between inflation and growth. Several studies have established that in the long run there is no trade-off between the two (Friedman 1975). The Phillip's curve becomes purely vertical, if the role of expectations is explicitly included. An environment of reasonable price stability is more conducive to economic growth; price stability is thus a necessary condition for long-run growth. However, there is a possible trade-off in the short run. It is, nevertheless, important not to overuse this opportunity as it can undermine the long-term imperative. The long-run implications of short-run actions need to be kept in view. There is also an argument that is going on in the developed economics whether the short run Phillip's curve has become flatter. A flatter Phillip's curve will enable a central bank to support employment aggressively during downturns.

In resolving the short-run trade-off between price stability and output growth, in the industrial countries, a solution is sought through the adoption of Taylor's rule which prescribes that the signal interest rate be fixed taking into account the deviations of inflation rate from the target and actual output from its potential (Taylor 1995). The rule is specified as follows:

$$r = p + .5y + .5(p - 2) + 2$$

where,

r is the federal funds rate

p is the rate of inflation over the previous four quarters

y is the percent deviation of real GDP from a target.

The last term 2 is the "equilibrium" real rate.

The rule requires the federal fund's rate to be raised, if inflation increases above the target or if real gross domestic product (GDP) rises above trend GDP. In the original version, the weights of deviation from target inflation and potential output were assumed to be the same at 0.5. While the rule is intuitively appealing, there are serious problems in determining the values of the coefficients. There is also a lot of judgment involved in determining the potential output and target inflation rate. However, the rule offers a convenient way of determining when the central bank should act. The dilemma of central banks, however, arises if inflation rate is above its target and the actual output is below potential. The first situation would require the central bank to raise the policy rate while the latter phenomenon would require to lower the rate. In this context, the value of the parameters matters very much.

Threshold Level of Inflation

Another way of reconciling the conflicting objectives of price stability and economic growth in the short run is through estimating the "threshold level of inflation," a level beyond which costs of inflation begin to rise steeply and affect growth. It is this inflation threshold which will provide some guidance to the policymakers. Below and around this threshold level of inflation, there is greater manoeuvrability for the policymakers to take into account other considerations. Interestingly, the Chakravarty Committee regarded the acceptable rise in prices as 4% (RBI 1985). This, according to the committee, will reflect changes in relative prices necessary to attract resources to growth sectors. I had estimated that in the Indian context, inflation rate should not exceed 6%, if we had to avoid adverse consequences (Rangarajan 1998b, 2020). It is also necessary for the policymakers to note that this order of inflation is higher (around 6%) than what the industrial countries are aiming at. This will have some implications for the exchange rate of the currency.

Inflation Targeting

The concept of a threshold level of inflation leads to another critical issue that is being debated in many countries—whether countries should adopt inflation targeting as a goal of monetary

policy. Inflation targets give in a sense greater precision to the concept of price stability. This framework would require that the monetary authorities should keep inflation within the target level. Since 1990, when it was first adopted by the Reserve Bank of New Zealand, there has been a widespread adoption of inflation targets by several central banks. Some 28 central banks since then have adopted inflation targeting. Many regarded such a system to be quite durable, until the 2008 international financial crisis. Writing before the crisis, Goodfriend (2007) had titled his essay as "How the World Achieved Consensus on Monetary Policy?" In fact, he wrote,

> The spread of explicit or implicit inflation targeting has demonstrated its virtues. The new working consensus on monetary policy has helped to reduce the volatility of both inflation and output.

The adoption of inflation targeting by India has given rise to many doubts and concerns. The new monetary policy framework requires the RBI to maintain consumer price inflation at 4% with a margin of + or – 2%. Thus, in a sense, it is flexible targeting. The amendment to RBI Act also provides for the setting of a Monetary Policy Committee (MPC) which will determine the policy interest rate in order to abide by the inflation mandates.

Conflict with Other Objectives

Does the focus on inflation targeting by monetary authorities mean a neglect of other objectives, such as growth and financial stability? Hardly so. What inflation targeting demands is that when inflation goes beyond the comfort zone, the exclusive concern of monetary policy must be to bring it back to the target level. When inflation is within the comfort zone, authorities can comfortably look to other objectives. This, at least, is my interpretation of inflation targeting. It is sometimes said that the crisis of 2008 has sounded the "death knell" of inflation targeting. It is not so. Many monetary authorities in the West failed to grasp the true meaning of inflation targeting. Rise in asset prices which happened prior to 2008 should have alerted monetary authorities and they should have taken action to raise the interest rate even though consumer prices were low. It is a different question whether a rise in interest rate in those circumstances would have worked. As I said earlier, control of inflation becomes the exclusive concern only when inflation goes beyond the limits set.

It is also important to observe that the objective of control of inflation is not independent of the objective of growth. For example, the amendment act of 2016 relating to RBI says,

> whereas the primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth. (RBI 2016)

This is more or less the statement in almost all countries which had adopted inflation targeting. It is interesting to see the minutes of the MPC of RBI. Before taking a decision on price rates, discussions have centred a round output gap, extent of liquidity, likely trends in GDP and possible supply shocks on prices.

Ability to Control Inflation

Can the RBI or for that matter any central bank effectively implement an inflation mandate? Do they have enough instruments to achieve the goal? The ability of the central banks to control inflation when such inflation stems from excess demand, is normally conceded. It is when inflation is triggered by supply shocks, that some doubts are raised. Such supply shocks are most common in countries like India where agricultural production is subject to the vagaries of nature. Even when inflation is triggered by food inflation, monetary policy and fiscal policy have a role to play. If food inflation lasts long, it gets generalised. Wages rise leading to general cost-push inflation. If the headline inflation exceeds the acceptable level, monetary policy must act at least to ensure that the return on financial assets is positive in real terms. In a situation of supply shocks, it may take longer for monetary policy to bring inflation down. Our experience with inflation post 2009–10 is a good example of this. That is why the inflation mandate, as already mentioned, must provide for a range and a time frame for adjustment which should not be too short. Nevertheless, monetary policy must act irrespective of what triggered inflation. Obviously, supply-side management is needed in situations of supply shock and that should be the responsibility of the government.

There is however an asymmetry in the way monetary policy functions. Monetary policy is able to handle better rise in inflation than deflation. It is basically a case of the old saying, "you can take the horse to the pond but cannot compel it to drink." Most developed countries, today, are concerned more with the role of monetary policy in reviving the economy.

The neutral interest rate is also deemed to have fallen. As the vice chairperson of Federal Reserve System said recently,

> All else being equal, a fall in neutral rates increases the likelihood that a central bank's policy rate will reach its effective lower bound (ELB) in future economic downturns. That development, in turn, could make it more difficult during downturns for monetary policy to support spending and employment, and keep inflation from falling too low. (Clarida 2019)

The possibility of inflation rising to unacceptable levels is not ruled out in developing economies. Obviously, a generally low inflation globally has its complications. Central banks in developing economies have still to be vigilant on the inflation front.

Transmission Mechanism

The transmission mechanism plays a critical role in the conduct of monetary policy. There are two components in this mechanism. First is, how far the signals sent out by the central bank are picked up by the commercial banks, and the second is, how far the signals sent out by the banking system influence the real sector. The former is called the "inside leg" and the latter the "outside leg." In advanced economies, the banks' reaction to the signals sent out by central banks is immediate. In fact, the financial structure is so well knit that even changes in the short end of the market spread quickly to a long end. Banks in India normally react quickly to the RBI's signals. But it does happen, as it is happening now, that for a variety of reasons, including balance sheet problems, the banks may be unlikely to act according to the signals of RBI. The burden of non-performing assets (NPAs) is not giving enough space to banks to lower interest rate, even when the signal from the central bank is to lower it. The impact of banks' actions on the real sector is

a much larger question. (For a study of the impact of interest rate on inflation, see Mohanty et al [2015]; Ray et al [1998].) The speed and extent of change depends on a variety of factors. In fact, the lags are quite long.

Recently, in the Indian context, questions have been raised as to whether a change in interest rate will have the expected effect on prices or output. Many studies have been done in India and elsewhere to understand the impact of interest rate on investment demand and consumption demand. It is normally found that interest rate affects those sectors like housing where repayments cover a long period. In fact, the relationship between interest rate and output is bit of a black box. More studies need to be done to throw additional light on the transmission mechanism. In studying the behaviour of prices, most econometric models use money supply or an equivalent liquidity measure to understand the impact of monetary policy. Post 2008, when interest rate fell close to zero, "quantitative" easing became the prime instrument in advanced economies. Even when monetary authorities signal changes through adjustments in the policy rate, steps will have to be taken by them to act on liquidity. Central banks cannot act like King Canute. They cannot order interest rates. They must act on liquidity such that the proposed changes in policy rate stick. Thus, "availability" and "price" are interrelated. Of course, this depends on the theory of interest one holds. As shall be discussed subsequently, the New Consensus Macroeconomics (NCM) holds a different view.

Role of Money

Developments in monetary policy go in parallel with developments in macroeconomics. In the days when Quantity Theory of Money reigned supreme, regulation of money supply to control the general price level also became an article of faith in monetary management. However, when some of the assumptions of quantity theory came to be questioned such as constant velocity, monetary policy moved away from the strict application of quantity theory. However, much later when monetarism gained ascendency, monetary policy began to follow money supply targeting. Both Keynesian and post-Keynesian developments began to question the role of money in controlling inflation and the economy. Of course, in the early Keynesian model, money supply played an important part because it determined the interest rate, which in turn had an effect on investment and output. Inflation in this model, however, arises only when full capacity was reached, much like in structuralist models. The NCM model which most central banks either explicitly or implicitly follow in its simplest form contained three equations, first, an IS type aggregate expenditure function, second a Phillips curve type aggregate supply function, and third, a Taylor type central bank reaction function showing how central banks set interest rate (Goodhart 2007). The third equation is not a behavioural equation. In this type of model, money stock is a dependent endogenous variable flowing from the interest rate determination. A fourth equation can be added linking interest rate and money without doing damage to the model. While most central banks nowadays do not set a money target, there is nonetheless some concern about the exclusion of money supply from monetary policy considerations. The ECB, however, has been following a two-pillar strategy where it specifies a policy interest rate as well as a reference value for monetary growth. On the second pillar, ECB said:

> This decision was made in recognition of the fact that monetary growth and inflation are closely related in the medium to long run. This undisputed relationship was acknowledged to provide monetary policy with a firm and reliable nominal anchor beyond the horizons conventionally adopted to construct inflation forecasts. Therefore, assigning money a prominent role in the strategy was also a tool to underpin its medium-term orientation.

There is a considerable amount of literature focused on the issue whether money stock can be totally excluded from consideration (for a summary of discussion, see Patra et al 2010).

As indicated earlier, some point to the post-2008 situation when interest rates fell to zero and quantitative easing had to be adopted specifically in advanced countries. Again, there are some who point to the wealth effect of money which gets completely excluded when money is taken out of consideration (Goodhart 2007). Goodhart calls the three equation model as a "fair weather model." Proponents of the "Modern Monetary Theory," a new school of thought, assert that there is no limit to fiscal deficit so long as it can be financed by fiat money. The only limit that they recognise is that this can lead to an increase in fiat money which can result in inflation (Kelton 2020). In their philosophy, the only constraint on budget deficit is the upsurge in inflation. Even though it is called "Monetary Theory," it is basically a fiscal approach. But it does recognise that money has a direct effect on the price level.

In the evolution of monetary policy in India, in the 1970s and 1980s, monetary authorities tried to influence the level of credit to achieve the objectives in mind (for a change in monetary policy objective, see Reddy 1999). In fact, the attempt was to ensure that the government had enough access to credit to meet its plan efforts. That was how the statutory liquidity ratio (SLR) was raised from time to time. Also bank credit was also pre-empted for certain sectors, which came to be described as the priority sector. There were, however, periodic bouts of inflation and they had to be dealt with. The interest rates were directly regulated. An attempt was made in the latter half of 1980s to regulate money supply in order to keep inflation under control. The early 1990s saw a big change in the institutional framework in which monetary policy operated. With the dismantling of the administered structure of interest rates as part of the reform process, interest rate emerged as a possible policy variable. Previously, it was simply "administered." Money supply targeting served a useful purpose not only in India but also elsewhere so long as there was stability in the demand function for money. As Bernanke and Mishkin (1997) point out,

> Using an intermediate target such as money growth is acceptable in an optimal control framework only if the intermediate target contains all information relevant to forecasting the goal variable; in this extreme case, using the intermediate target is equivalent to targeting the forecast of the goal variable.

The choice of policy variable whether it is the quantity or price depends on a number of factors. As John Taylor (1993) mentioned,

> While quantities are no less important than prices in models of financial markets—as in the most basic supply and demand model of any market—it turns out that measurement problems have forced econometric modelers away from the quantity of credit and foreign exchange toward the prices of these items.

In the Indian context, while fixing the policy rate, the RBI also talks extensively of the liquidity situation and of the measures taken to expand or contract liquidity. The term "liquidity" is neither quantified nor a distinction made between "temporary" liquidity and "durable" liquidity. Reserve money growth and money supply growth are mentioned in the policy announcements but not integrated with the policy decision (Rangarajan and Samantaraya 2017). Perhaps we may follow the ECB "two pillar" strategy which is more relevant to bring about significant changes in the system.

Exchange Rate Stability

While traditionally the trade-off among the objectives has been discussed in relation to price stability and growth, of late, exchange rate stability and financial stability have also emerged as competing objectives. Monetary authorities in the developed world have generally let the market determine exchange rates. However, there have been several exceptions. There have been occasions when central banks in the developed countries have intervened, sometimes in a concerted way when exchange markets have become volatile. However, in general, exchange rate considerations have not been important in the formulation of monetary policy in these countries. The general argument is that flexible exchange rates give autonomy to central banks in the formulation of monetary policy.

In the Indian experience with the market-determined exchange rate system introduced in 1993, there have been several occasions when the RBI had intervened strongly to prevent volatility. While the stated policy of the RBI has been to intervene in the market only to prevent volatility, interventions have assumed a new dimension with the influx of large capital inflows. These interventions in the foreign exchange market were aimed at preventing the appreciation of the rupee. The consequent accumulation of reserves has a monetary impact. Money supply expands with the accumulation of reserves unless offset by sterilisation which has to take the form of either normal open market operations or through the issue of special sterilisation bonds. The extent of accumulation of reserves and the degree of sterilisation influence the growth of money supply, and the monetary authority has to take a view on the permissible expansion of money supply in the context of large capital inflows. If there are limits to sterilisation, the accumulation of reserves would have to be limited.

As objectives of monetary policy, exchange rate stability and price stability play complementary roles in a regime where the exchange rate is by and large determined by the current account of the balance of payments. The purchasing power parity theory essentially enunciates that the external value of the currency is determined by the internal value. Under these circumstances, monetary policy geared to domestic price stability helps to avoid disruptive adjustments in the exchange rate. Stabilising the real exchange rate under these circumstances essentially means that price stability and exchange rate stability are two sides of the same coin. However, the condition where the exchange rate is largely determined by current account is no longer true even in developing economies. Capital inflows have come to dominate the balance of payments and the exchange rate may begin to appreciate, even if there is a significant current account deficit because of large capital flows. Obviously, no monetary authority can afford to ignore prolonged volatility or misalignment in the foreign exchange market. The need for intervention in those circumstances becomes obvious. However, the framework evolved must be such that large interventions to stabilise exchange rate have to be an exception

than the rule. Price stability considerations must be kept in view while intervening in a big way.

Financial Stability

Increasingly, macroeconomic stability as an objective of central banking is closely linked to financial stability. It is easy to see how the two are interlinked. Financial stability broadly implies the stability of the important institutions and markets forming the financial system. Key institutions need to be stable, that is, there should be a high degree of confidence about meeting the contractual obligations without interruption or outside assistance. While the complementarity between the objectives of macro stability or price stability and financial stability is easily recognised, one must also be conscious of the potential cases of conflict between the two objectives. Normally, price stability is favourable to the development of financial products and markets.

Prior to the 2008 financial crisis, the link between financial stability and monetary policy was not clearly perceived. Most central banks treated financial stability as an extension of the regulatory responsibilities, even as monetary policy primarily focused on inflation control. Financial stability considerations did not generally play a major role in the formulation and implementation of monetary policies. There was only an imperfect understanding of the fact that financial stability is necessary for effective transmission of monetary policy. Disturbances in the market can make the standard interest rate policies much less effective. We need to know more on how to incorporate financial factors in the standard model of the transmission mechanism.

There is a raging debate going on as to whether the 2008 financial crisis in the West was precipitated by monetary policy failure or regulatory failure. It has been argued that lax monetary policy led to low interest rates which caused many distortions in the system culminating in the crisis. The macro conditions preceding the crisis included low real interest rates due to the Great Moderation with a long period of very stable growth and low inflation. This led to systematic underestimation of risks and very low-risk premia in financial markets. Those who argue that the crisis was triggered by regulatory failure point to lax regulation and supervision which led to increased leverage, regulatory arbitrage, and less due diligence in loan origination. Those who argue that monetary policy was not responsible for the crisis only concede that a low interest rate regime could have at best facilitated an environment of high risk-taking. They also doubt whether a different monetary policy could have prevented the crisis. The key issue, however, is the role of monetary authorities in the context of rising asset prices. Should they intervene, and, if so, in what manner? The policy of clean-up after the burst rather than taking preventive action was a choice that cost the economies bitterly. When the bubble explodes, it becomes the responsibility of the central banks to restore confidence in the market. There is no doubt that asset prices should be considered as important inputs in monetary policy formulation. Obviously, price stability alone is not enough to achieve financial stability. It was fortunate that in the post-crisis period sharp reductions in interest rates were facilitated by declining inflation. It was a comfortable coincidence. A rising inflation in that context would have made the task very difficult. Even as monetary policy encompasses financial stability as part of its mandate, the major responsibility with respect to financial stability still rests with regulation and supervision. It is ironic that a serious regulatory failure should have happened at a time when extensive discussions were being held at Basel and elsewhere to put in place a strong regulatory framework.

Many central banks were preparing financial stability reports, even as the Financial Stability Forum (FSF) was set up. There were many shortcomings in the financial system of the industrially advanced countries. The "soft touch" approach left many segments of the financial markets go without adequate supervision. The distorted incentives for commercial and investment banks to increase the leverage had to be plugged. The 2008 crisis in the US and other advanced countries is a reflection of both monetary policy and regulatory failures. While regulatory failure bore the primary responsibility, monetary policy played a facilitating role. We need to draw appropriate lessons from the crisis. The regulatory framework needs to incorporate both micro and macro prudential indicators. Distortions in the financial markets not only affect the effective functioning of the transmission mechanism of monetary policy but also have a direct impact on the real sector as the 2008 crisis showed.

Rules and Discretion

To get back to monetary policy, yet another issue is whether the authorities should be guided by rules. The issue of "Rules versus Discretion" has been discussed very much in the literature (Pierce and Tysome 1985). In fact, the issue applies not only to monetary policy but also to other policy instruments. As early as 1936, Henry Simons took a fundamental position in favour of rules. He considered it as part of "liberal faith." He wrote,

> The liberal creed demands the organization of our economic life largely through individual participation in a game *with definite rules.* It calls upon the state to provide a stable framework of rules within which enterprise and competition may effectively control and direct the production and distribution of goods … It is this danger of substituting authorities for rules which especially deserves attention among students of money. (Simons 1936)

Not many will agree with the issue of "rules versus discretion" being identified with the basics of a liberal system. Institutional discretion is not inconsistent with liberalism.

Rules can be rigid as well as flexible. Gold standard was not only an international monetary arrangement in which the value of each currency was expressed in terms of quantity gold but also had well laid rules to be followed by countries. The golden rules of gold standard as they came to be known were rigid and the system finally collapsed. Milton Friedman proposed the rule of a fixed rate of growth in money supply and there were no takers (Friedman 1975). On the other hand, the Chakravarty Committee recommended a flexible monetary targeting system (RBI 1985). The target itself was based on several variables and its operation was not rigid.

There is considerable amount of debate on what constitutes a rule. Some regard even the principle of raising the interest

rate when inflation is above a level and lowering it when it is below a level as a rule, even though there may be discretion on the extent of change. Rules do not fall from the sky. They evolve out of experience and theory. Taylor's formula was not originally meant to be a rule. It was a derivation of actual experience. Later, it came to take the form of a rule. Bernanke and Mishkin (1997) argue that inflation targeting is not a rule but a framework. The flexibility in terms of the range in which inflation can fluctuate as well as the freedom given in terms of time to bring the inflation back to norm give to the authorities a lot of discretion. This is a case of "constrained discretion." Of course, there can be bad rules. That is why policymakers need to make a choice after full discussion. Rules must recognise that there are far too many imponderables in the economy. Rules cannot be too rigid. Some flexibility must be built into the rules. On the other hand, absolute discretion throws accountability out of the window. It can even lead to suboptimal decisions (Kydland and Prescott 1977). In the final analysis, we need rules and discretion.

Autonomy of Central Banks

A perennial question with respect to central banking is how much independence should a central bank enjoy. In the history of central banks, almost all of them until recently were treated, in the final analysis, as subject to the control of government. Central banks did enjoy the freedom to state their views. Most governments respected their views because of the credibility enjoyed by the heads of central banks. Particularly in the parliamentary form of government, the finance minister who was responsible for economic policy claimed that the last word on major decisions was theirs.

The argument in favour of independent central banks rests on the premise that monetary stability, which is essential for the efficient functioning of the modern economic system, can be best achieved only if the task is entrusted to professional central bankers who can take a long-term view of the monetary policy stance. Too much concern with the short term can result in "stop-go" policies. Implicit in this kind of reasoning is the assumption that the political leadership normally tends to take too short term a view and such an approach is not conducive to ensuring stability. This is what is referred to as the problem of "dynamic inconsistency."

In India too, the dominance of government over the central bank was implicit all through. Jawaharlal Nehru in his letter to Governor Rama Rau at the time of his resignation said,

> You have laid stress on the autonomy of the Reserve Bank. Certainly it is autonomous, but is also subject to the Central Government's directions ... Monetary policies must necessarily depend upon the larger policies which a government pursues. It is in the ambit of those larger policies that the Reserve Bank can advise. (RBI 1998)

In fact, Nehru's letter was harsh in its tone. The then finance minister sounded even more aggressive. Unfortunately, this exchange of letters sealed the relationship between government and RBI for several decades.

In India, persons who were appointed as governors were men of erudition, scholarship and rich administrative experience. Governments listened to them. However, when the chips were down, government had its way. It was not just a matter of "fiscal dominance." Government wanted the RBI to consult it before any decision was taken. If the government differed, it had its way.

Section 7 of RBI Act says,

> The Central Government may from time to time give such directions to the Bank as it may, after consultation with the Governor of the Bank, consider necessary in the public interest. (RBI 1934)

The Government of India has never used this section. It also acted always through other channels. The use of the term "from time to time" implies that the original framers had in mind frequent "directions."

Monetary policy is part of overall economic policy. Monetary policy and fiscal policy running in different directions can impose a burden on the economy. There has to be a close dialogue and coordination between RBI and government. At the same time, there is advantage in specifying the areas in which RBI has a clear mandate. The system of the issue of ad hoc treasury bills to replenish the cash balances of the central government implicitly amounted to automatic monetisation of fiscal deficit. It certainly weakened the role of RBI. It was good that this system was abolished in early 1990s. The then government and finance minister saw the rationale for the abolition of the practice and were willing to go along with RBI. This was an act of great statesmanship on the part of the finance minister. The Fiscal Responsibility and Budget Management Act, 2003 later took it forward by preventing the entry of RBI in the primary market in government securities. In fact, the new monetary policy framework is a major step forward in enhancing the autonomy of RBI. It not only establishes the primacy of price stability as the objective of monetary policy but also gives the power to set the rate of interest rate exclusively to the MPC. As of now, the finance minister gets to know of the decision on interest rate along with others.

Central banks like RBI perform multiple functions. They are not only monetary authorities but also regulators of the banking system. This in some ways complicates the autonomy question. As a regulator, they have only the freedom other regulators enjoy.

In determining the mandate of RBI, government has complete authority. Once the mandate is given, RBI must be given the freedom to take such actions as it deems fit. This is sometimes called "instrument independence" as distinguished from "goal independence." It is important to make the distinction between "autonomy" and "independence." It is in the best interests of the government itself to cede certain areas to the central bank and let the RBI act in those areas according to its best judgement.

As the developments in 2018 and 2019 have shown, the pressure of the government on RBI can come on issues unrelated to monetary policy or even regulation. The attempt to put pressure on the governor through the board was also an unwise development. It is not unreasonable to expect government and RBI to have on occasions differing stances on monetary policy or regulation. But what is required is to demark in advance the areas in which each will have the final say. The new monetary policy framework is a good example. The mandate is fixed by

the government after discussion and the management of the mandate is left to RBI. When all is said and done, a spirit of dialogue and accommodation must prevail.

Conclusions

Central banks, particularly in developing economies, have a special responsibility in helping to create appropriate financial institutions and widen and deepen the financial infrastructure. "Financial inclusion" has assumed critical importance in recent years because of the failure of the system to reach out to small borrowers and vulnerable groups. The RBI has played a key role in discharging this responsibility and this must continue. Financial development and to a large extent financial stability are part of the objectives of a central bank as distinguished from the objectives of monetary policy.

Monetary policy as an instrument of policy has the chief merit of responding quickly to changes. Monetary policy influences the economy through changes in the availability and price of credit and money. There are however occasions when the impact is minimal. In the depression of 1930s, because of the "liquidity trap" monetary policy had very little influence. Post 2008, when interest rate in advanced economies touched zero, monetary policy again was found to be weak in influencing the economy. Even unorthodox measures such as "quantitative easing" had only minimal effect. Monetary policy is most effective when inflation rules high because of increase in aggregate nominal demand. Monetary controls work best in these circumstances.

While monetary policy can have multiple objectives, it needs to steer in a clear direction and prioritisation of objectives becomes essential. It has to create a hierarchy of objectives. The mandate of the central bank has become wider. In that sense, the contours of monetary policy are changing. This is inevitable with the increasing complexity of the system in which central banks operate. However, to deal with other objectives such as financial stability, standard instruments of monetary policy will not be adequate. Regulation and supervision combined with an appropriate monetary stance will be necessary to maintain financial stability. Total discretion with respect to objectives will make monetary policy indeterminate. Central banks need to be transparent and explicit with respect to objectives. What is needed is a good combination of rules and discretion. Among the various objectives such as price stability, growth, and financial stability, the dominant objective for central banks, particularly in developing economies, must be price stability. Having an inflation target helps in this regard. Under such a situation, inflation expectations get truly anchored. In ordinary circumstances, by maintaining price stability a central bank can pave the way for the fulfilment of other objectives as well over the medium term. However, extraordinary circumstances will warrant extraordinary responses. It is sometimes said that central banking is neither a science nor an art but a craft. This is at best a half-truth. Central banking is no longer the application of well-known tools to well-known problems. The issues that surface are complex. We need to continually enlarge our knowledge and understanding of how the economy functions and how the different participants of the economy react to policy changes. Successful central banks are those which respond to problems with speed, tact and intelligence.

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