

## The Changing Paradigm of Monetary Management in Emerging Economies – A Case of India

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**Abstract:** Monetary management through monetary policy, in order to achieve the macroeconomic policy objectives of sustained economic growth, control of inflation and financial stability, remains a subject which still baffles economists. The objectives of monetary policy differ in advanced and emerging economies due to their structural differences. Besides, focusing on the objective of price stability, the advanced economies have now adopted a new objective of output stabilization, as high inflation is no more a problem in these countries. On the other hand, most Central Banks of EMEs pursue a multitude of objectives of the monetary policy, viz. price stability, full employment, economic growth and exchange rate stability. In India, RBI has been pursuing the objective of price stability with sustained economic growth, since high inflation has continued to plague Indian economy since independence. In the liberalized environment, monetary policy of RBI additionally began focusing on maintaining orderly conditions in money, securities and foreign exchange markets. The monetary policy objectives are attained through monetary targets, which differ from country to country. The paper highlights the role of monetary targets and the different targets being pursued by advanced as well as the EMEs. Instruments of monetary control and the monetary policy transmission mechanisms are also discussed, also pointing out the differences in these aspects in advanced as well as emerging economies.

**Keywords:** Emerging Market Economies, Monetary Policy, Advanced economies

### INTRODUCTION

Macroeconomics has always been associated with dynamism. One of the core areas of macro and monetary economics is monetary management, which basically refers to formulation and conduct of Monetary Policy [1]. The supremacy of ‘money’ and its role in influencing the real variables of the economy was long established during the times of Keynes General Theory, however, the complexities of the transmission mechanism of monetary policy and the path it follows to influence the real variables still remains a point of contention and debate. Though several channels of monetary transmission have been identified, yet the Central banking authorities are never able to precisely predict, control and influence all the channels, given the fact that the armour of monetary policy instruments, available with the Central Bankers, are also beyond their control sometimes. The scenario becomes all the more challenging in the emerging market economies given their vulnerability to the global environment. The goals of monetary policy are somewhat different in these economies and basically the monetary policy and Central bankers are often under obligation to perform developmental roles in the economy like building of institutional and financial infrastructure, markets etc. The Central bankers are supposed to closely align the monetary policy with the government’s fiscal and other

economic policies. Due to this very fact, sometimes, the autonomy of Central banks in emerging economies becomes questionable. However, the scenario is fast changing; especially Central Banking has greatly evolved after the onset of Economic Reforms and liberalization process in most emerging economies. As per the Earnst & Young report on Central Banking, the Central bankers have achieved a new prominence and become pivotal members of the policy-making establishments of both national and intergovernmental organizations. As a result of a growing responsibility for financial stability, coupled with their injection of massive amounts of liquidity into the financial system has, central banks in many jurisdictions, have extended their powers and remit beyond their traditional “lender of last resort” function [2]. In context of India, too, a lot has changed in terms of autonomy and powers granted to the Governor of Reserve Bank of India post liberalization.

The emerging economies, post liberalization, have been thrown open to a highly dynamic monetary sector environment. With liberalization, firstly, the system of administered interest rates was done away with; secondly, the restrictions imposed on the banking system in terms of regulations regarding directed credit were abandoned. Thirdly, the deregulation of financial

prices stimulated the process of price discovery, necessary for efficient resource allocation but it also paved the way for throwing open the financial balance sheets to volatility of markets. Lastly, along with liberalization, the linkages between financial and foreign exchange markets are deepened and therefore the economy becomes all the more exposed to the happenings in international markets.

The Central Banks today are faced with dilemmas where these are required to formulate their monetary policies in a scenario of multiple objectives, limited instruments and a dynamic and uncertain environment.

The paper is structured as follows: In the first section, the objectives of monetary policy are discussed with specific reference to emerging economies. Section II talks about the evolving objectives of monetary and credit policy in the Indian economy. The III rd section discusses the intermediate targets of monetary policy. The IVth section talks about the operating procedures of monetary policy, basically tracing the evolution of the instruments of monetary control since liberalization.

In the last section, the challenges of monetary policy transmission in emerging economies are discussed. Also, future course of monetary policy in emerging market economies is highlighted.

### **Objectives of Monetary Policy in Emerging Market Economies (EMEs)**

Monetary Policy is as old as the monetary system and money itself. To quote Einzing, "Managed currency was not entirely unknown to the ancient Egyptians, Greeks, and Chinese who shifted bullion to and from the shrines of their temples in order to counteract movements in price level." [3]. The problem of monetary management sprang up during the First World War, when gold standard showed signs of breaking up. Prior to 1920s, when the 'Quantity Theory of Money' was of paramount importance, there was little doubt as to the efficiency of monetary policy and it was the widely held belief that monetary policy, by lowering interest rates and, concurrently, the supply price of capital goods could induce investment demand, sufficient to achieve full employment. The hyperinflation in Germany and the Great Depression during the 1920s and early 1930s dragged the monetary policy down from the pedestal of honour, that it had occupied and raised doubts that whether it would influence aggregate demand at all. According to H.F Lydall, Keynes also contributed to the collapse of the usefulness of interest rate by his two concepts, namely, "The Liquidity Trap" and "Businessmen's Expectations"[4]. Brown writes that, Monetary Policy got really defeated at the hands of fiscal policy which proved to have a much larger impact, a quicker and

more immediate effect than could have been achieved by monetary policy. For developed countries, the main problem was that of effective demand. Fiscal Policy was more suited to meeting that problem, for it made a direct intervention from the demand side than from the uncertain cost side. Then, again, fiscal policy could bring about changes in private demand through substitution effect induced by changes in relative prices, which monetary policy could not do [5]. During early 1950s, monetary policy again reemerged into the forefront as a reliable means of regulating national economic activity. The tide actually turned and monetary management again assumed importance. This revival of monetary policy was largely due to the development of inflationary pressures in most countries of world, both developed and less developed, since the outbreak of the Korean War. This inflationary rise in prices at that time had been largely due to large investment outlays supported by cheap money policy and expenditures on defence and war equipment, supported by expansionary fiscal policy.

The majority of monetary economists now believe that monetary policy influences the economy by reference to its effects on the availability and cost of credit, with stress on availability. The reluctance of lenders to provide additional credit was considered as a great barrier to borrowing rather than the cost of credit itself. This new emphasis on the lender as opposed to borrower, stemmed essentially from what is called 'The Credit Availability Doctrine' propounded by Robert V. Roosa. According to Roosa [6], one aspect of this doctrine is that a small increase in the interest rate might reduce the lending on the part of conservative financial institutions. Such a rise might instill a sense of caution in disposing of liquid assets like bills and at the same time lock these institutions into their portfolios of long-term assets on account of the reluctance to take capital losses [6]. In recent years, however, there is a change and all financial institutions have not been reluctant to dispose of government securities in the face of rising interest rates. In recent years the scope of monetary policy has considerably widened. Radcliffe Committee [21] expressed the opinion that monetary policy consisting of Bank rate and Selective Credit Controls may be quite effective in checking in inflationary situation, but it cannot be expected to act quickly enough or alone to bring about a complete recovery during a slump. Prevailing opinion gives importance to both the Monetary and the Fiscal policies for the regulation of the level of output and price level in the economy. Both the policies supplement and support each other [7].

Hence, the fact remains that both Monetary and Fiscal policies are important arms of an economic policy in an emerging economy. However, it's important to recognize the most difficult task in hands

of Central bankers in an emerging economy is to decide upon the most dominant objective of the monetary policy. Price Stability or the control of inflation has been the primary objective of monetary policy and it is essentially so because an environment of volatility in prices leads to uncertainty in economic decision making, it encourages participation in speculative activities making them attractive than savings. It thus, lowers the savings rate and has detrimental effect on allocation of investment as well as on the exchange rate of currency. Another important aspect in emerging economies is the deep negative impact of inflation on society as a result of the distortions it brings into the society.

Too high or too low inflation is recognizably detrimental to economic growth, but even moderate

inflation becomes worrisome for the Central bankers as if it's not kept under check, it has a tendency to quickly spiral high. Besides, the objective of price stability, the advanced economies have now adopted a new objective of output stabilization, as high inflation is no more a problem in these countries.

Most Central Banks of EMEs pursue a multitude of objectives of the monetary policy, viz. price stability, full employment, economic growth and exchange rate stability. The price stability issue and the tough trade-off between price stability and economic growth continue to be the toughest dilemma faced by the banking authorities. If we look at the objectives of monetary policy being followed by most EMEs, the objective of price stability continues to overpower any other objective. (Table 1)

**Table 1: Monetary Policy Objectives & Stance**

<i>Economies</i>	<i>Monetary Policy Objectives &amp; Stance</i>
UK	Bank of England is an inflation targeting Central Bank
Europe	European Central Bank takes policy decisions based on a twin strategy comprising economic and monetary analysis.
USA	Federal Reserve Bank follows a framework termed as 'Risk Management Approach' wherein a view on interest rate is taken on consideration of balance between risks to inflation and growth.
<b><i>Emerging Market Economies (EMEs)</i></b>	
Indonesia	Objective is to stabilize medium term inflation to promote sustained long term economic growth, maintain stability of Rupiah.
China	People's Bank of China has the dual legal mandate of 'maintaining the stability' of the currency, financial stability and thereby promoting economic growth.
Brazil	It implemented a formal inflation targeting framework for monetary policy in 1999. Monetary policy thus, now aims to achieve inflation as well as interest rate targets.
Russia	Bank of Russia aims to complete its transition to inflation targeting by 2015. Monetary policy objective is to control inflation, ensure conditions for sustainable and balanced economic growth to maintain financial stability.
Mexico	Banco de Mexico goal is to ensure an environment of low and stable inflation. Through this, it aims to create appropriate conditions for both sustained growth and creation of permanent jobs.
South Africa	Primary objective is to achieve and maintain price stability in the interest of sustainable and balanced economic development and growth.
India	Maintain price stability and ensuring adequate flow of credit to the productive sectors.

The above table makes it clear that keeping inflation under check, thereby promoting sustainable economic growth and maintaining exchange stability are by far the most dominant objectives of monetary policy in EMEs.

#### **Evolving objectives of Monetary Policy in India**

Identifying the 'Objectives of Monetary Policy in India' is important because of the need to provide a clear guidance to monetary policy makers. 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 requires a clear enunciation of goals.

Working of monetary policy in India over the past several decades would reveal that monetary policy has emphasized the broad objectives of India's economic policy, which have been to achieve a faster rate of growth, ensure reasonable degree of price stability and promote distributive justice.

The RBI Act, in its preamble does not specify 'price stability' as the purpose of the bank but mentions 'monetary stability' and states that the bank has to operate "currency and credit system of the country to its advantage." The wordings in the preamble are such that they could be given different interpretations. According to IVR Iengar, "The main emphasis, you will notice, is on the maintenance of the stability of rupee. This emphasis was entirely in accordance with the theories current before the World War II about the proper functions of the Central Bank of a country. The principal pre-occupation of central banks in all developed economies was to preserve monetary stability, both internally and externally." [8]. Monetary stability would not, strictly speaking, refer to price stability, but given the negligible 'openness' of the Indian economy at least at the time of the promulgation of the RBI Act in the 1930s, it is difficult to ascribe to this expression, the idea of stable external value of the Indian rupee. Yet, it is often interpreted as meaning exchange rate stability, Nor can one regard monetary stability as involving 'financial stability', a concept that was not so well articulated in the 1930s or the stability in the expansion of money supply, which would not make sense unless related to output and prices.

In the Indian context, the broad objectives of monetary policy mainly have been—

- a) To maintain a reasonable degree of price stability; and
- b) To help accelerate the rate of economic growth.

RBI's emphasis as between the two objectives has been changing from year to year, depending upon the conditions prevailing in that year and in the previous year. The challenge of achieving high economic growth could only be fulfilled by capital formation on a large scale. The state assumed the role of an entrepreneur and resorted to the process of deficit financing to generate additional funds to meet the expenditures. The circumstances led to government deficit increasing steadily. Besides, the unabated monetary expansion, with no equivalent supply response, led to high inflation. There was a resultant sharp increase of fiscal deficit in 1980s – 7.7% by latter half of 1980s; the current account deficit also became unsustainable at a rate of 3.2% of GDP by 1989-99. The circumstances eventually led to the balance of payment crisis in July 1991. The Central Bank had no major role to play in this scenario and its monetary policy stance was basically dominated by the need to neutralize the monetary and inflationary effect of monetization. Notwithstanding the then debate over the monetary and non-monetary causes of inflation, this shift in the policy thinking was codified by the Chakravarty Committee, which recommended that price stability emerge as the "dominant" objective of monetary policy [9].

**Table 2: Summary Record of Inflation in India**

Decade	WPI Inflation Rate (%)
1950	1.2
1960	6.4
1970	9.0
1980	8.0
1990	8.1
2001-02 to 08-09	5.2

These traditional objectives of growth and price stability were pursued by the, a third objective that has been gaining importance in the post economic reforms period is that of 'Financial Stability', while in the short run, there may exist some trade-offs between the stated objectives, in the long run, the complementarities among them become more pronounced. Hence, it is clear that although maintaining price stability is considered the most important objective of monetary policy, recent experiences in conducting monetary policy have called for an imperative need for strategic adjustments so as to enable the policy to respond effectively to market disturbances and external sector developments, particularly in the context of Indian economy getting integrated with global financial markets. In the liberalized environment, monetary policy has, thus, an additional focus of maintaining orderly conditions in money, securities and foreign exchange markets [10].

Post liberalization, inflation stability became all the more essential as post liberalization of external sector, led to strong capital flows, which needed to be managed. India's monetary policy, like that of other emerging economies has the dominant and sole objective of controlling inflation. However, in Indian economy only keeping inflation under check would never suffice as Inflation is not a purely monetary phenomena in India. In India, there are supply side issues which need to be managed, for example, frequent agricultural shocks, oil price hikes etc influence prices. This limits the credibility of the Reserve Bank of India and ability of Reserve Bank to control inflation through demand management. The RBI by virtue of being a manager of public debt cannot separate its monetary management function with that of its debt management function. This is what limits the Reserve Bank of India's capacity to adopt only inflation control as its policy objective.

#### **Intermediate Targets of Monetary Policy**

In order to achieve the goals of monetary policy, it is necessary to design a strategy for their achievement. The monetary policy strategy with explicit goals, intermediate targets, operating targets must be available to monetary authority. Policy instruments operate targets which in turn affect intermediate targets that change ultimate goal variables.

Advanced economies have experimented a lot with the use of intermediate targets to achieve the monetary policy objective. While choosing an appropriate monetary policy target, the Central Banks consider the amount of control they can exercise over the monetary target and the stability of relation between target variable and the end objective of monetary policy. The monetary policy transmission mechanism is vital in choosing the target variable. If the variable lies at the beginning of the transmission process (interest rate or base money growth), then it is easily controllable but may not effectively influence the end objective, while if the target lies at the end of the transmission mechanism (inflation or nominal income), the opposite will be true. The middle option is the adoption of an intermediate target like money growth or exchange rate [11].

I. **Monetary Targeting** - Intermediate targets are usually some macroeconomic aggregate like Reserve money, narrow money or broad money. The Central bank tries to target a growth rate for these aggregates to achieve the monetary policy objective. The monetary and credit aggregates hold a greater significance in emerging markets as the financial markets are not well developed in these countries [12]. However, when these economies started opening up, these were additionally required to meet the challenge of managing capital flows. Under these circumstances, many central banks in emerging economies such as Bank of Mexico and South African Reserve Bank switched to inflation targeting. However, the number of countries opting for monetary targeting has increased from 11.5 per cent of IMF members in 2008 to 15.3 per cent in 2011.

II. **Interest Rate Targeting** - In advanced economies, interest rate targeting is usually an alternative to monetary targeting. This is so because; in advanced economies interest rates play a vital role in clearing in clearing the markets. Financial markets, in advanced economies are well developed and interlinked. Hence, interest rates in different markets mutually influence each other.

III. **Exchange rate Targeting**- When a Central Bank targets exchange rates, it tries to keep the exchange rates within a specified limit or at a particular level. This involves foreign exchange market interventions (buying and selling of foreign currencies). Thus, exchange rate serves as a nominal anchor or intermediate target of monetary policy. In emerging market economies, exchange rates have large economic effect, if the domestic output is influenced by exchange rate. The Central Bank and governments in emerging economies try to have some leverage in being able to somewhat moderate the externally generated price

disturbances. EMEs cannot manage exchange rates through adjustments in domestic interest rates, unlike the advanced economies where domestic interest rates have a more predictable impact on capital flows and exchange rates. Exchange rate targeting however, has proven to be a risky strategy (as in case of Asian crisis) and is most suitable for countries only if there is willingness to let the other adjustment channels take the strain of adjusting to external disturbances.

IV. **Inflation Targeting** - Recently, this has become the most popular target of monetary policy in advanced as well as EMEs. In this, the Central Banks directly target inflation--rather than employment, output, or some other criterion--the primary goal of monetary policy. It also forces the central bank to look ahead, giving it the opportunity to tighten policies before inflationary pressures become intense. Many advanced economies like New Zealand, Canada, the United Kingdom, Finland, Sweden, Australia, and Spain have taken to inflation targeting. When intermediate monetary targets or maintaining a fixed exchange rate, this innovation was adopted in most of these countries [13]. In recent past, the major structural changes in EMEs specially the development of integrated financial markets have made monetary targets less reliable and many countries have thus, started adopting inflation targeting. Inflation targeting has many advantages. According to Knight, inflation targeting improves transparency, encourages a focus on future inflation and makes Central banks more accountable. A number of EMEs like Brazil, Czech Republic and Turkey adopted inflation targeting when other targets like monetary growth and exchange rate failed [14].

#### **Case of India**

In India as in other countries, monetary policy framework has undergone significant transformation over time. India followed a monetary targeting framework with feedback during the mid-1980s to 1997-98 under which broad money was used as an intermediate target for monetary policy. This framework was, however, rendered increasingly inadequate by the mid-1990s due to several developments that took place with economic and financial sector reforms. Indian economy underwent significant changes as the process of Economic Reforms began and it began opening up in 1991.

Due to the onset of monetary sector reforms, the Indian financial market considerably developed and widened. This resulted in significant improvements in transmission of policy signals through indirect instruments like interest rates. As a result of opening up of the Indian economy, it became increasingly difficult

to control monetary aggregates as the ratio of net foreign assets to reserve money increased due to increased capital inflows [15]. In order to face the challenges thrown open by a changed environment, consequently, the Reserve Bank announced a shift, to a 'Multiple Indicator Approach' in 1998-99. This was necessary because over time, it had become apparent that besides real income, interest rate also influences the decision to hold money. In this new approach, a number of macroeconomic and financial variables are considered while deciding the monetary policy rather than a single  $M_3$  aggregate, as in the past. The other variables that are considered in this approach are interest rates or rates of return in different markets (money, capital and government securities markets), data on currency, credit extended by banks and financial institutions, fiscal position, trade, capital flows, inflation rate, exchange rate, refinance and transactions in foreign exchange etc. Thus, the 'exclusive' use of Broad money ( $M_3$ ) as an intermediate target was deemphasised but still  $M_3$  continued to be an important information variable. In words of Deepak Mohanty, the current framework of monetary policy can be termed as an 'augmented multiple indicator approach'.

Recently, RBI's Expert Committee to Revise and Strengthen the Monetary Policy Framework, also referred to as the Urjit Patel Committee' suggested making far reaching changes to monetary policy framework. The most controversial is the suggestion to adopt Inflation Targeting through the new combined consumer price index (CPI). The recommendations of this Committee have been in consonance with the 2009 Raghuram Rajan Committee recommendation, which had recommended that RBI should aim to target a low inflation number, or a range in the medium term and use a single instrument like the short term interest rate (repo and reverse repo) to achieve it [16].

### **Instruments of Monetary Control**

The central bank's power to conduct monetary policy stems from the fact that it is the sole source of primary money in the economy[17]. Task of the central bank is usually to either fix the supply or the price of primary liquidity in consonance with a broader money or interest rate target; sometimes it can even control both in relatively imperfect financial markets. Then, the interest rates are determined - administered or market determined [11].

Cash Reserve Ratio (CRR) is an important instrument of monetary control. In underdeveloped economies, where financial markets are not deep enough to transmit monetary policy impulses to real economy, CRR is often used as an instrument of monetary control. This instrument, which works by altering a portion of bank's lendable resources, is not as

successful because it fails to take into consideration the relative liquidity position of other agents of the economy.

Axilord explains Open Market Operations (OMOs) [18] thus:

*“Open market operations are another major instrument of monetary control in industrial countries and are becoming important to developing countries and economies in transition. Open market operations allow central banks great flexibility in the timing and volume of monetary operations at their own initiative, encourage an impersonal, businesslike relationship with participants in the marketplace, and provide a means of avoiding the inefficiencies of direct controls. (para.4)”*

OMOs are conducted in various forms like sale of eligible securities, repo transactions and uncollateralised repo transactions in form of a standing deposit/lending facility.

It has been observed that most Central Banks have shifted to use of indirect instruments which allow the Central banks' to target quantity and price of primary liquidity. Advanced economies like USA, Japan, and Europe use OMO to either target bank reserves, short term interest rates or to modulate monetary conditions in terms of both the quantum and price of liquidity.

In emerging market economies, post liberalization, central banks have attempted to balance both domestic and foreign sources of liquidity. OMOs are used to sterilise strong capital flows. Many times, faced with the challenge of sterilising strong capital flows, Central bank's fall short of the central bank bills used in OMOs. Sustained sterilisation operations sometimes impact the central bank's profitability. In order to prevent this, many central banks now allow either the exchange rates to appreciate or raise the reserve requirements.

The structural reforms and financial liberalisation in the 1990s shifted the financing paradigm for the government and commercial sectors with increasingly market-determined interest rates and exchange rate. By the second half of the 1990s, in its liquidity management operations, the Reserve Bank was able to move away from direct instruments to indirect market-based instruments. Also, till about the middle of the year 1991-92, the government securities market remained almost dormant as it was characterized by a passive internal debt management policy, with borrowing at pre-announced rates targeting a captive

group of investors. This coupled with automatic monetisation of budget deficit prevented the development of a deep and vibrant securities market. Obviously, the efficacy of the Reserve Bank's Open Market Operations as a weapon of credit control was of marginal significance at the time. This was so because the narrowness of the Indian gilt edged securities market provided a limited scope for it and besides this, the Open Market Operations were purposely used by

the Bank as an aid to public debt management rather than as a tool of monetary control. During the Post Reforms period, the Central government and the Reserve Bank took a number of policy initiatives in order to remove the limitations in the use of Open Market Operations and thus revive it as an instrument of credit control. Now, the Reserve Bank uses Open Market Operations policy along with repos and reverse repos for liquidity management.

**Table 2: Operating Procedures of Monetary Policy**

<i>Economies</i>	<i>Intermediate Targets</i>	<i>Instruments</i>
<b>Advanced</b>		
UK	Inflation	Bank rate, interest rate, OMO, Repo auctions
Europe	No official target	OMO, repos, marginal lending & deposit facility
USA	Federal funds rate	OMO, Repos, Reserve requirements, discount rate
<b>Emerging Market Economies (EMEs)</b>		
Indonesia	Monetary base & real effective exchange rate	CRR, OMO, discount rate
China	Money aggregate	Instruments of the Central Bank (PBC) & non-monetary instruments.
Brazil	Money, credit & interest rates	CRR, OMO
Russia	Interest rate will switch to inflation targeting in 2014	Reserve ratios, Repo auctions
Mexico	-	Money & foreign exchange market operations
South Africa	Repurchase rate	OMO, CRR
India	Multiple Indicator Approach	

### Monetary Policy Transmission Challenges

Pradhan & other [19] define the Monetary Transmission Mechanism (MTM) as a mechanism whereby the policy induced changes in the short term interest rate affect real variables such as investment, output and employment. Thus, short term policy rates have a significant impact on the other long term interest rates which in turn influence economic activity. In case the transmission from short-term policy rate to long-term interest rates is not strong or timely, the monetary policy will have only a limited impact on the real economy. This is particularly important for emerging market economies, which continue to progress in developing capital markets, especially bond markets. There are four major MTMs have been identified in modern financial systems. One is the direct interest rate effect which influences not only the cost of credit but also the cash flows of debtors and creditors. Changes in interest rates alter the marginal cost of borrowing, leading to changes in investment and saving and thus in aggregate demand. The second is through the impact of monetary policy on domestic asset prices – including bond, stock market and real estate prices. The third channel is the exchange rate channel while the fourth one relates to credit availability.

- I. Interest rate Channel – The extent to which a policy induced change in the interest rate affects all short term money market interest rates, including the long term interest rates (influencing investments like housing or purchases of durable goods). However, all of this depends upon organization of financial markets.
- II. Asset price channel – Changes in money supply also affect stock prices. When the Central Bank increases the money supply, it will increase spending, including more purchases of stock. Higher demand of stock increases its price and the ratio of a firm's market value to the cost of capital (this ratio is  $q$  in Tobin's theory). When  $q$  rises, it leads to increase in investment and output.
- III. Exchange rate channel- In EMEs, with onset of liberalization, the current and capital account were liberalized. The exchange rate channel of MTM weakens

the real interest rate in response to expansionary impulse. This leads to depreciation of exchange rate. It, thus improves current A/C balance and economic activity picks up by giving a boost to the exports. The reverse happens when capital controls are relaxed.

- IV. Credit Channel- It can work in two ways. In case of direct channel, the bank reserves affect loan supply and loan rate. While, in case of indirect channel, the market interest rate affects aggregate spending through loan rate.

The MTM in emerging economies should be viewed in respect of various structural rigidities and presence of incomplete markets in EMEs. The Monetary Policy Transmission channels in EMEs have been affected by the process of financial liberalization. The interest rate channel and credit channel remains important, in context of financial fragility. The opening up of the economy together with the withdrawal of balance sheet restrictions enhanced the role of asset prices, in particular exchange rate, in the monetary transmission process.

In case of India, the new operating framework of Reserve Bank of India's monetary policy presupposes the dominance of interest rates channel of monetary transmission.

According to Mohan [20].

*“Monetary policy transmission in India suggests that monetary policy impulses impact on output and prices through interest rates and exchange rate movements in addition to the traditional monetary and credit aggregates. On the whole, the Indian experience highlights the need for emerging market economies to allow greater flexibility in exchange rates but the authorities can also benefit from the capacity to intervene in foreign exchange markets in view of the volatility observed in international capital flows. Therefore, there is a need to maintain an adequate level of foreign exchange reserves and this in turn both enables and constrains the conduct of monetary policy. A key lesson is that flexibility and pragmatism are required in the management of the exchange rate and monetary policy in developing countries rather than adherence to strict theoretical rules.”*

### Concluding Remarks

In the present paper, an attempt has been made to explain the dynamics of monetary policy, its objectives, targets and transmission mechanism in

EMEs. The process of monetary management, which includes monetary policy formulation and implementation, is particularly challenging in EMEs due to the fact that these economies have their own unique set of circumstances distinguishing them from the advanced economies. These economies are in stage of development of their financial and money markets are undergoing the process of economic reforms, the apex monetary institutions in such economies work closely with the state and their autonomy is somewhat debatable.

Under such circumstances, the monetary policy formulation and implementation process in EMEs has shown considerable flexibility in terms of pursuit of multiple objectives of price stability, credit expansion and financial stability. However, some operational constraints prevent adoption of the sole aim of price stability as monetary policy objective and target, as is the case of advanced economies. The process of reforms and liberalization in EMEs including India, have posed additional challenges like managing changes in liquidity due to inflow and outflow of capital. Most of the EMEs have adopted additional mechanisms to deal with such challenges; however, there is still requirement of developing, deepening and integration of their financial markets.

The case of India, Reserve Bank of India, has been modifying operating procedures of monetary policy consistent with the international best practices, it has switched to use of indirect instruments of monetary control, announces an explicit operating target, it forecasts changes in autonomous determinants of liquidity, though this ability is limited by the uncertainty arising out of government cash balances and unanticipated swings in capital flows. Additionally, the Reserve Bank has been making an attempt to make the monetary transmission process as transparent and effective as required. However, the success of monetary policy in India will be when it achieves sustained economic growth with price and financial stability.

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