<center>**Mechanics of Monetary Policy: 1985 to Present**</center>

The monetary policy framework in India has evolved over the past few decades in response to financial developments and changing macroeconomic conditions. The operational framework of monetary policy has also gone through significant changes with respect to instruments and targeting mechanisms.

The policy framework comprises well-defined objectives/goals of monetary policy along with instruments, operating targets and intermediate targets that facilitate the implementation of monetary policy and achievement of the goals of monetary policy.

Instruments → Operating targets → Intermediate targets → Goals of MP

Policy Framework (1985-1998)

In 1985, on the recommendation of the Committee set up to Review the Working of the Monetary System (Chairman: Dr. Sukhamoy Chakravarty), a new monetary policy framework was implemented based on empirical evidence of a stable demand for money function. The recommendation of the committee was to control inflation within acceptable levels with desired output growth. Further, instead of following a fixed target for money supply growth, a range was followed which was subject to mid-year adjustments. This framework was termed **"Monetary Targeting with Feedback"** as it was flexible enough to accommodate changes in output growth.

The **main instruments** in this framework were cash reserve ratio (CRR), open market operations (OMOs), refinance facilities and foreign exchange operations. **Broad money (M3)** was chosen as the **intermediate target** while **reserve money (M0)** was the **main operating target**. However, an analysis of money growth outcomes during the monetary targeting framework reveals that targets were rarely met, and as a result, the goal of price stability could not be achieved.

Policy Framework (1998-2016)

However, financial innovations in the 1990s implied that demand for money may be affected by factors other than income. Further, interest rates were deregulated in the mid-1990s and the Indian economy was getting increasingly integrated with the global economy. Therefore, the RBI began to deemphasize the role of monetary aggregates and implemented a multiple indicator approach (MIA) to monetary policy in 1998 encompassing all economic and financial variables that influence the major objectives of monetary policy. The new system was based on the recommendations of RBI's Working Group on Money Supply (Chairman: Y. V. Reddy).

These variables included several quantity variables such as money, credit, output, trade, capital flows, and fiscal indicators as well as rate variables such as interest rates, inflation rate and the exchange rate. The

MIA was later augmented (AMIA) under RBI Governor Bimal Jalan's guidance. Under the AMIA, several forward looking variables and time series models were included in the framework.

Chart 1: AIMA (Operating Framework) (1998-2016)
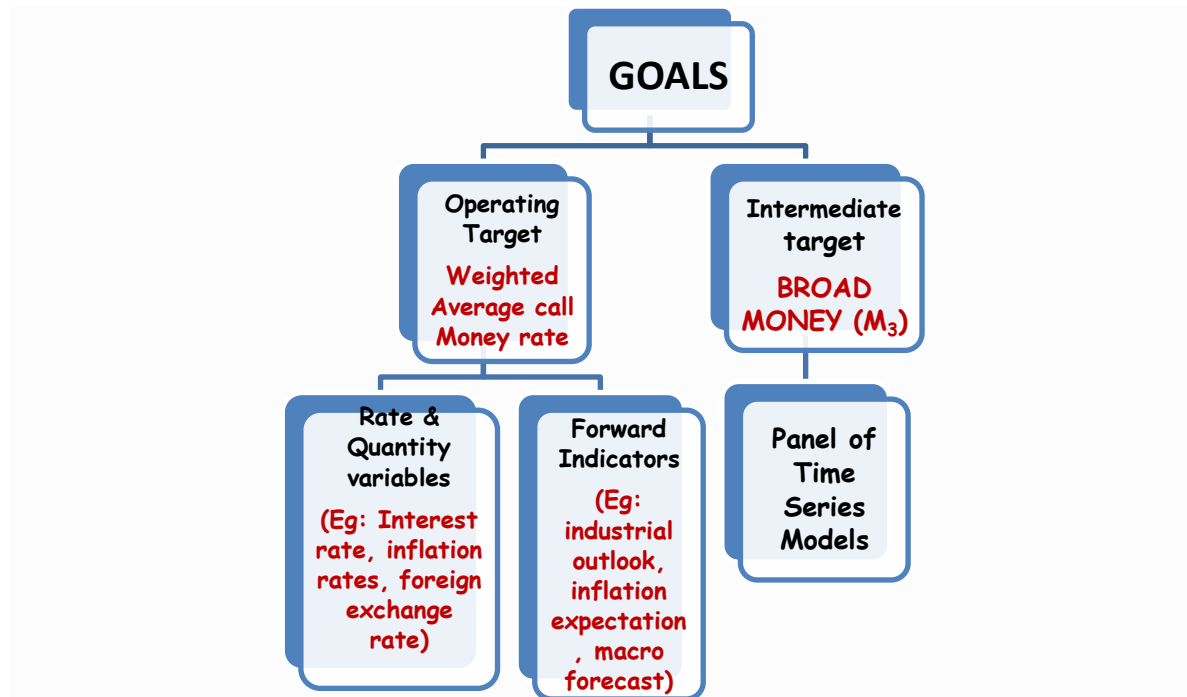
In May 2011, the weighted average call money rate (WACR) was explicitly recognized as the **operating target of monetary policy** while the repo rate was made the only one independently varying policy rate. These measures improved the implementation and transmission of monetary policy.

Shift toward Inflation targeting (2016-)

The importance of focusing on inflation was first highlighted in the Report of the Committee on Financial Sector Reforms (2009; Chairman: Dr. Raghuram Rajan) constituted by the Government of India. The report recommended that RBI can serve the cause of growth by focusing on controlling inflation and intervening in currency markets only to limit excessive volatility. The report pointed out that inflation control is also inclusive in character because the poorer sections are least hedged against inflation.

Former RBI Governor, Dr. Raghuram Rajan set up an Expert Committee in 2013 to Review and Strengthen the Monetary Policy Framework (RBI 2014; Chairman: Dr Urjit R Patel). Some issues central to the report were (i) **selecting the nominal anchor for monetary policy**, (ii) **defining the inflation metric** and (iii) **specifying the inflation target**. In this context, the concept of a nominal anchor must be briefly explained.

A nominal anchor is central to a credible monetary policy framework as it ties down the price level or the change in the price level to attain the final goal of monetary policy. It is a numerical objective that is defined for a nominal variable to signal the commitment of monetary policy towards price stability.

Generally five types of nominal anchors have been used, namely, **monetary aggregates**, **exchange rate**, **inflation rate, national income** and **price level**. The Expert Committee recommended inflation to be the nominal anchor of the monetary policy framework in India. Further, low and stable inflation is a necessary precondition for sustainable high growth and inflation is also easily understood by the public.

Regarding the inflation metric, the Committee recommended that RBI should adopt the all India CPI (combined) inflation as the measure of the nominal anchor. This is to be defined in terms of headline CPI inflation, which closely reflects the cost of living and influences inflation expectations relative to other available metrics. CPI is also easily understood as it is used as a reference in wage contracts and negotiations. Headline inflation was preferred against core inflation (headline inflation excluding food and fuel inflation) since food and fuel comprise more than 50% of the consumption basket and cannot be discarded.

The Committee recommended the target level of inflation at 4% with a band of ± 2% around it. The tolerance band was formulated in the light of the vulnerability of the Indian economy to supply and external shocks and the relatively large weight of food in the CPI basket.

The Expert Committee also recommended that decision-making should be vested in a Monetary Policy Committee (MPC).

After the implementation of the Committee's recommendation in 2016, India joined the group of countries which follow inflation targeting as the cornerstone of monetary policy. Thus, the monetary policy flowchart can be depicted in **chart 2** as follows:

Chart 2: The current Monetary Policy Framework

Instruments →	Operating targets →	Intermediate targets →	Goals of MP
-Policy rate (Repo) -LAF (Includes Reverse repo) -MSF, Bank rate -CRR, SLR -OMO -Foreign Exchange rate	WACR	Short term & Long-term interest rate	-Price stability -Growth -Financial Stability - Forex rate Stability

It is imperative here to note some of the key elements of the revised framework for liquidity management that are particularly relevant for the operating framework shown in **chart 2**. A few of the key features of the RBI Monetary Policy at present are:

- Liquidity management remains the operating procedure of monetary policy; the **weighted average call rate (WACR)** continues to be its **operating target.**

- The liquidity management corridor is retained, with the **marginal standing facility (MSF)** rate as its **upper bound (ceiling)** and the **fixed reverse repo rate as the lower bound (floor),** with the **policy repo rate in the middle of the corridor**.

- **The width of the corridor is 50 basis points**—the reverse repo rate being 25 basis points below the repo rate and the MSF rate 25 basis points above the repo rate.

- **Instruments of liquidity management** continue to include fixed and variable rate repo/reverse repo auctions, outright open market operations, forex swaps and other instruments as may be deployed from time to time to ensure that the system has adequate liquidity at all times.

Monetary Policy Transmission Mechanism

Making a policy does not guarantee that its effects will be felt in the economy: it is important to be sure about the transmission mechanism of that policy.

Monetary policy transmission is the process through which changes in monetary policy affect economic activity in general as well as the price level. As RBI uses the short-term interest rate as the policy instrument for the conduct of monetary policy, its **transmission** is thus the process through which

- The change in the policy rate is transmitted first to the short-term money market rate,
- Then to the entire range of interest rates covering the money and bond markets as well as banks' deposit and lending rates
- These impulses, in turn, impact consumption (private and government), investment and net exports, which affect aggregate demand and hence output and inflation.

There are **five channels of monetary transmission**— (i) *interest rate channel*; (ii) *exchange rate channel*; (iii) *asset price channel*; (iv) *credit channel* and (v) *expectations channel*.

The **interest rate channel** has been briefly discussed above.

Exchange rate channel: Monetary transmission takes place through this channel when changes in monetary policy impact (i) the interest rate differential between domestic and foreign rates leading to (ii) capital flows (inflow or outflow) which, in turn, (iii) affects the **exchange rate** and hence **the relative demand for exports and imports.**

Transmission through the asset price channel occurs when changes in monetary policy influence the price of assets such as equity and real estate that lead to changes in consumption and investment. A change in prices of assets can lead to:

- a change in consumption spending due to the associated wealth effect. For example, if interest rates fall, people may consider purchasing assets that are non-interest bearing such as real estate and equity.
- A rise in demand for these assets may result in higher prices, a positive wealth effect and thus higher consumption.
- Further if equity prices rise, firms may increase investment spending.

Transmission through the credit channel happens if monetary policy influences the quantity of available credit. This may happen if the willingness of financial institutions to lend is influenced due to a change in monetary policy. Further, debt obligations of businesses may also change due to a change in the interest rate. (*For example, if the policy rate falls, debt obligations of firms may decrease, and this will improve their balance sheets*). As a result, financial institutions may be more willing to lend to businesses, thus increasing investment spending.

Monetary policy changes can impact public's expectations of output and inflation and accordingly, aggregate demand can be impacted via **the expectations channel.** For instance, expected future changes in the policy rate can impact medium-term and long-term expected interest rates through market expectations and thus affect aggregate demand. Further, if inflation expectations are firmly anchored by the central bank, this would imply price stability.

Transmission Lags

The transmission mechanism is beset with lags. There are basically two components of the transmission mechanism. The first is how far the signals sent out by RBI are picked by the banks and the second is how far the signals sent out by the banking system impact the real economy. The first component can be called the "inner leg" and the second the "outer leg".

Let us examine some recent data to have an idea about the lags. There was a total reduction in the policy repo rate by 135 basis points between February 2019 and January 2020. During this period, transmission to various money and bond markets ranged from 146 basis points in the overnight call money market to 73

basis points in the market for 5-year government securities and to 76 basis points in the market for 10-year government securities. Transmission to the credit market was also modest with the weighted average lending rate (WALR) on fresh rupee loans sanctioned by banks falling by 69 basis points during February to December 2019.

Unconventional Policy measures

We have so far discussed the conventional measures of monetary policy. If the conventional measures fail to bring the desired results, then the central banks may employ unconventional monetary policy tools. Unconventional monetary measures target financial variables other than the short-term interest rate such as liquidity, credit spreads (e.g. interest rates on risky assets) and asset prices. The objective of unconventional tools is to supplement the conventional monetary policy tools especially in the easing cycle to boost economic growth.

In the recent past, RBI has used various unconventional tools in addition to conventional monetary policy measures. Broadly, unconventional measures can be classified into four categories— (i) large scale asset purchases, (ii) lending operations, (iii) forward guidance and (iv) negative interest rates.

Large scale asset purchases by a Central Bank involve purchase of long-term government securities financed by crediting reserve accounts that commercial banks hold at the Central Bank.

Lending operations involve provision of liquidity to financial institutions by RBI through the creation of new or extension of existing lending facilities. For example, we may have expansion of the set of eligible collateral, extension of the maturity of the loan etc.

Forward guidance implies RBI communicating future policy intentions and commitments regarding the policy rate to influence policy expectations. Forward guidance is given routinely by most Central Banks.

A negative interest rate implies that an interest rate is charged on the reserves that commercial banks hold at the central bank. Thus, instead of paying the commercial banks an interest on reserves kept with RBI, RBI charges some interest on such reserves (over and above certain ceiling). Then, the banks may be induced to reduce their excess reserves and increase lending.