Monetary policy and heterogeneities – India

Reserve Bank of India

Effective conduct of monetary policy requires a thorough understanding of the structure of the economy and the transmission channels of these policies. Monetary transmission depends not only on the country's monetary policy framework but is also related to the macroeconomic outlook, regulations, global conditions, and other structural and cyclical factors (Deb et al (2023)). The relative importance of the different channels of monetary policy transmission is not only country-specific but also evolves significantly over time. Efforts to examine the modalities of monetary policy transmission, now place significant focus on the characteristics and responses of microeconomic agents – both firms and households (Ashcraft and Campello (2007); Auclert (2019); Cloyne et al (2020); Laine (2023)).

In what follows, this country note outlines key aspects of monetary policy transmission and the manner in which heterogeneities are incorporated into the monetary policy decision-making process by the Reserve Bank of India (RBI).

I. Monetary policy transmission

The monetary policy framework in India has undergone several changes in the past three decades (Raghuvanshi and Ahmad (2024)). With an amendment in 2016 to the Reserve Bank of India Act, 1934, flexible inflation targeting was formally adopted as the monetary policy framework in India; with the target set at 4% headline inflation with a tolerance band of +/– 2%.[1] Since the adoption of this regime, inflation has broadly remained within target, with some bouts of exceptions during the Covid-19 pandemic (Graph A.1).

In a recent paper, Patra et al (2024) suggest that while anticipated policy changes do not have any instantaneous impact on long-term rates in India, policy surprises, however, significantly impact all financial market segments and across tenors.[2] Policy surprises are found to have a relatively lower but significant pass-through to the exchange rate and equity prices. In terms of the impact of policy rate tightening on the real economy, a significant negative impact on inflation expectations is observed. The long-run elasticity of the policy rate with respect to inflation expectations reveals that an increase in policy rate anchors expectations effectively. The paper also finds that the 250 basis point (bp) increase during the current tightening cycle from May

[1] rbi.org.in/scripts/FS_Overview.aspx?fn=2752.

[2] The recent rate cut of 25 basis points, it may be argued, was already priced-in, as most surveys indicated that experts believed that the Monetary Policy Committee would reduce the policy rate. This was noted in several unofficial surveys as well as the Reserve Bank of India Survey of professional forecasters. In the Reserve Bank of India Survey, the mean policy repo rate at the end of Q2 2025/26 is expected to be 5.94 and at the end of Q3 2025/26 it is expected to be 5.87 (Kumar (2025); Reserve Bank of India (2025)).

2022 to February 2023[3] negatively contributed to aggregate demand and headline inflation by 160 bp each until Q2 2024/25, working through various policy transmission channels (Patra et al (2024)). There is also some evidence suggesting that effects of monetary policy action may be asymmetric in India, with expansionary shocks having a stronger effect on inflation, particularly during a recession (Shah and Kundu (2024)).

Monetary policy transmission to money markets is usually instantaneous and complete in India, especially across collateralised segments (Patra et al (2024)). In the uncollateralised call money market – the focus of transmission – sporadic and episodic deviations are observed. These deviations usually take place at the time of reserve requirement and balance sheet dates as well as during recurring events such as advance tax outflows and government salary payments. The government securities (G-sec) market assumes a central position in the intermediate to longer end of the interest rate continuum, providing the risk-free term structure for pricing financial instruments issued by all other sectors of the economy. Liquidity in the G-sec market is not uniform across the curve but concentrated in a few maturity segments because of market participants' "preferred habitat" and "market segmentation" behaviour.

Corporate bond yields track the movements in G-sec yields, with changing risk spreads over time caused both by variations in the risk-free rate and the creditworthiness of corporates. Fixed income segments of the interest rate spectrum are also vulnerable to global spillovers. In the credit segment, the extent and speed of policy rate pass-through to lending and deposit rates have varied sizeably in tightening episodes, depending upon factors such as the duration of the cycle, the speed of the rate hikes and the prevailing liquidity conditions (Patra et al (2024)).

The extant literature suggests that transmission of monetary policy works through five main channels – interest rates, credit, asset prices, exchange rate and expectations. Several studies have examined monetary transmission in India, each focusing on one (or two) of these channels and for different time periods.[4] A recent study finds that as the banking sector is the predominant source of credit for Indian firms and households, the credit channel has a significant role in monetary policy transmission in India (Raghuvanshi and Ahmad (2024)). The shift to a flexible inflation targeting framework has resulted in a growing impact for the credit and interest rate channels on inflation, but their contribution to output changes has moderated. It has also been suggested that the introduction of the external benchmark-based lending rate system of loan pricing, effective from October 2019, has improved transmission in the credit market (Kashyap et al (2023)).

There are also several idiosyncratic factors that influence monetary policy transmission, namely interest rate subventions; mismatches in the maturity profile of banks' assets and liabilities; loans being mostly contracted at floating rates with deposits contracted at fixed rates; rigidity in banks' savings deposit rates; competition from administered rates on small savings instruments; and the asset quality of financial intermediaries. For instance, using an open-economy Dynamic Stochastic General Equilibrium (DSGE) model with monopolistic competition and sticky prices and wages, formal and informal sectors, and frictions in labour and product markets,

[3] See Graph A.2 which plots the policy rate in India.

[4] See Raghuvanshi and Ahmad (2024) for a detailed review of the related literature.

Anand et al (2016) find that monetary policy tightening is more effective in a low friction environment in India.[5] In another study on emerging market economies in Asia including India, it is documented that the interest rate sensitivity of output is stronger in countries with higher levels of financial inclusion (Mehrotra and Nadhanael (2016)).

II. Monetary policy and the use of micro data

The RBI, as part of its monetary analysis, uses a variety of surveys to gather real-time insights into economic conditions, that capture a considerable amount of heterogeneity and act as inputs in monetary policy decisions.

The Inflation Expectations Survey of Households (IESH) and Consumer Confidence Survey (CCS) are conducted on a bi-monthly basis to understand the directional information on near- and medium-term inflationary pressures. The IESH is a survey of households in 19 major cities in India, and seeks information on current, three-months-ahead and one-year-ahead inflation expectations. Considerable levels of household heterogeneity are captured in the IESH, with responses on inflation expectations canvassed across groups varying by age, gender, occupation and city of residence. The bi-monthly Consumer Confidence Survey collects current perceptions (vis-à-vis a year ago) as well as the one-year-ahead expectations of households on their general economic situation, employment scenario, overall price situation, own income and spending across 19 major cities. It has been seen that the numerical value of households' inflation expectations is not comparable with official measures of inflation in India as it typically relates to a household's own consumption basket. The survey, however, provides valuable inputs to understand the direction of short- and medium-term expectations of households.

The bi-monthly Survey of Professional Forecasters (SPF) collects macroeconomic forecasts from a panel of economists and experts in various financial institutions. It is used to gauge expectations regarding key economic indicators, such as GDP growth, inflation, unemployment and interest rates. It provides assessment on near-, medium- and long-term growth and inflation expectations. The heterogeneity of opinions among panellists with regard to the indicators covered by the survey is used as an input during discussions on monetary policy.

Heterogeneity in price assessment and outlook across various firms are captured in the in-house quarterly Industrial Outlook Survey (IOS) and Services and Infrastructure Outlook Survey (SIOS). IOS encapsulates qualitative assessments and expectations of the business climate by Indian manufacturing companies on a set of business parameters relating to demand conditions, price situation and other business conditions. Similarly, the forward-looking SIOS captures qualitative assessments and expectations of Indian companies engaged in the services and infrastructure sectors.

[5] The paper refers to product and labour market frictions. In particular, it focuses on product market regulations that affect firm entry costs and the degree of competition, as well as labour market regulation that affects hiring costs.

Heterogeneity in wages across sectors and varying cost conditions across firm types are included in projection models at the Reserve Bank of India. Inputs for the projection models include wage rates for rural agricultural and non-agricultural labourers and information on manufacturing and services sector input costs and selling prices, among other items.

The operating framework of monetary policy aims at aligning the operating target – the weighted average call rate – with the policy repo rate through proactive liquidity management to facilitate transmission of repo rate changes through the entire financial system, which, in turn, influences aggregate demand – a key determinant of inflation and growth. The Reserve Bank of India Act, 1934 provides for the constitution of a Monetary Policy Committee (MPC) to determine the policy rate required to achieve the inflation target. The MPC makes the decision after assessing the current and evolving macroeconomic conditions, in consonance with the objective of achieving the medium-term target for CPI inflation, while supporting growth.

III. Distributional effects of monetary policy

Long-term changes in economic inequality are largely due to structural factors outside the domain of monetary policy and that, in our opinion, are best addressed by fiscal and structural policies. The mandate of RBI does not explicitly state that distributional effects should be considered in addition to the focus on aggregate targets. Under the Reserve Bank of India Act, 1934 (as amended in 2016), RBI is entrusted with the responsibility of conducting monetary policy in India with the primary objective of maintaining price stability, while keeping in mind the objective of growth. Distributional effects of monetary policy on households and firms is implicit in this mandate. Inflation has to be kept low and stable which restricts its incidence and impact on the poor. Food inflation has a weight of about 46% in headline inflation. With this high share, ignoring food price pressures would have spillover effects, eventually leading to further monetary tightening that, in turn, would have serious implications for growth and income distribution. A recent study, using household-level consumption data, suggests that expansionary monetary policy shocks increase the relative price of food, which in turn raises household-level food consumption inequality in India (De and Kakar (2021)).

It is difficult to distinguish between the distributional effects of monetary policy and the interaction of monetary transmission with micro-level heterogeneities. While the former has more to do with the health of households and firms – ie big or small, rich or poor – the latter relates to the health of the financial system that influences monetary transmission. Detailed examination of the manner in which monetary transmission plays out at the disaggregated level may be useful to inform the monetary policy decision-making process and aid its effectiveness. While there are very few studies on these heterogeneities, a recent study on Indian firms suggests that an increase in credit may not always find its way towards increasing investments in India, with firms using cheaper credit to finance their current liabilities rather than enhancing capital formation (Garg et al (2024)).

IV. Other policies

RBI is a full-service central bank in charge of monetary policy, as well as the supervision and regulation of the banking and non-banking sectors. It also undertakes measures to ensure financial inclusion and the smooth flow of credit to the unserved and underserved segments under the priority sector lending scheme, as these sectors are crucial for inclusive growth.

Priority sector lending[6] was formalised by RBI in 1972 and priority sectors were defined.[7] With an initial target of 33% of total credit of scheduled commercial banks, later revised to 40% of total credit,[8] this policy aims to enhance credit outreach to the underserved and deepen financial inclusion. The sectors included under the scheme and the sub-targets are revised from time to time depending on evolving macroeconomic and structural requirements. RBI also uses several macroprudential measures to address heterogeneities.

RBI also undertakes standalone measures to address financial vulnerabilities in times of duress. For instance, during the Covid-19 pandemic, several measures were undertaken to meet the liquidity and credit requirements of some specific entities facing liquidity stress.[9] RBI also took measures to ease liquidity conditions as well as policies designed to increase access to credit.[10] These came with sunset clauses, stipulated at the time of announcements of the policies themselves, providing clear forward guidance to the market. RBI has also used other tools at its disposal to enhance credit to cash-strapped segments like micro, small and medium enterprises (MSMEs).[11] During this time, the priority sector lending classification was extended to

[6] Began in India in 1966 when the government identified sectors that needed more financial support.

[7] These include agriculture, MSMEs, export credit, education, housing and social infrastructure.

[8] On the basis of the recommendations of the Working Group on the Modalities of Implementation of Priority Sector Lending and the Twenty Point Economic Programme by Banks, all commercial banks were advised to achieve the target of priority sector lending at 40% of aggregate bank advances by 1985.

[9] These included five Targeted Long-Term Repo Operations (TLTRO) auctions conducted during March–April 2020 that injected INR 1.13 billion into the banking system. Special refinance facilities were provided to National Bank for Agriculture and Rural Development, Small Industries Development Bank of India and National Housing Bank to enable them to meet sectoral credit needs. A line of credit was also extended to Export-Import Bank of India for a period of 90 days from the date of availing with rollover up to a maximum period of one year to enable it to make use of a US dollar swap facility to meet its foreign exchange requirements of INR 15,000 crore.

[10] For instance, there was a moratorium on payments of loan installments until August 2020. There were also measures taken to ease working capital financing by banks and certain concessions that banks were being allowed to make, at the time, were excluded for the purposes of asset classification downgrades.

[11] For instance, extending the cash reserve ratio exemption available to scheduled commercial banks for credit disbursed to micro, small and medium enterprises (MSMEs) up to 31 December 2021. This was for exposures up to INR 2.5 million. For the purpose of this exemption, "new" MSME borrowers were defined as those MSME borrowers who had not availed themselves of any credit facilities from the banking system as of 1 January 2021.

cover lending by banks to non-bank financial companies (NBFCs), as NBFCs are often lenders to segments that are unserved by the commercial banking sector.[12]

RBI has actively pursued an inclusive financial system in addition to its active policies on improving financial access to all segments. Along with efforts towards raising financial awareness, RBI has constructed and periodically publishes a Financial Inclusion Index. For the year ending March 2024 it was 64.2, up from 60.1 in March 2023.[13]

V. Conclusion

Monetary policy tools are focused on meeting the mandate set by the government for RBI – ie price stability quantified as a headline inflation target of 4% with a +/– 2% tolerance around it, while keeping in mind the objective of growth. However, during times of crisis, depending on evolving economic circumstances, the RBI has undertaken measures to address funding or liquidity constraints. These sector-specific targeted policies not only had sunset clauses embedded in them but also avoided outright giveaways.[14] The measures worked through meeting the credit requirements of the sectors that were more severely affected by the pandemic and faced more severe financing constraints.

The RBI has also taken several steps to address temporary inequities to ameliorate the difficulties of marginal borrowers, aimed at enhancing financial inclusion as well as paving the way for the smoother transmission of monetary policy by bringing varied segments within the purview of metrics that the RBI can monitor and target.

[12] Also applied to fresh credit granted by small finance banks (SFBs) to registered NBFC-microfinance institutions (NBFC-MFIs) and other eligible MFIs (societies and trusts etc). The priority sector lending limit for loans against negotiable warehouse receipts/electronic negotiable warehouse receipts was enhanced from INR 5million to INR 7.5 million per borrower. The modified interest subvention scheme for short-term loans for agriculture and allied activities availed through the Kisan credit card was extended to farmers during the financial year 2021/22. The scheme has also been extended to SFBs and computerised primary agriculture cooperative societies which have been superseded by scheduled commercial banks, in addition to public sector and private sector banks (in respect of loans given by their rural and semi-urban branches only), on use of their own resources. The RBI has also issued guidelines for co-lending by banks and NBFCs to improve credit flow to underserved sectors of the economy. This is done through the co-lending model, announced in November 2020.

[13] A multidimensional composite Financial Inclusion Index has been constructed based on 97 indicators, which quantifies the extent of financial inclusion and is responsive to availability, ease of access, usage, unequal distribution and deficiency in services, financial literacy and consumer protection. The annual Financial Inclusion Index is on a scale of 0 to 100, with three sub-indices, viz "access", "usage" and "quality".

[14] These were measures like (i) various iterations of long-term repo operations; (ii) simultaneous sale and purchase auctions under operational twists to moderate rates for long-term government borrowing; (iii) refinance facilities and liquidity support to sector-specific liquidity stress and redemption pressures; and (iv) Government Securities Acquisition Programme (G-SAP), which helped soften yields, among others.

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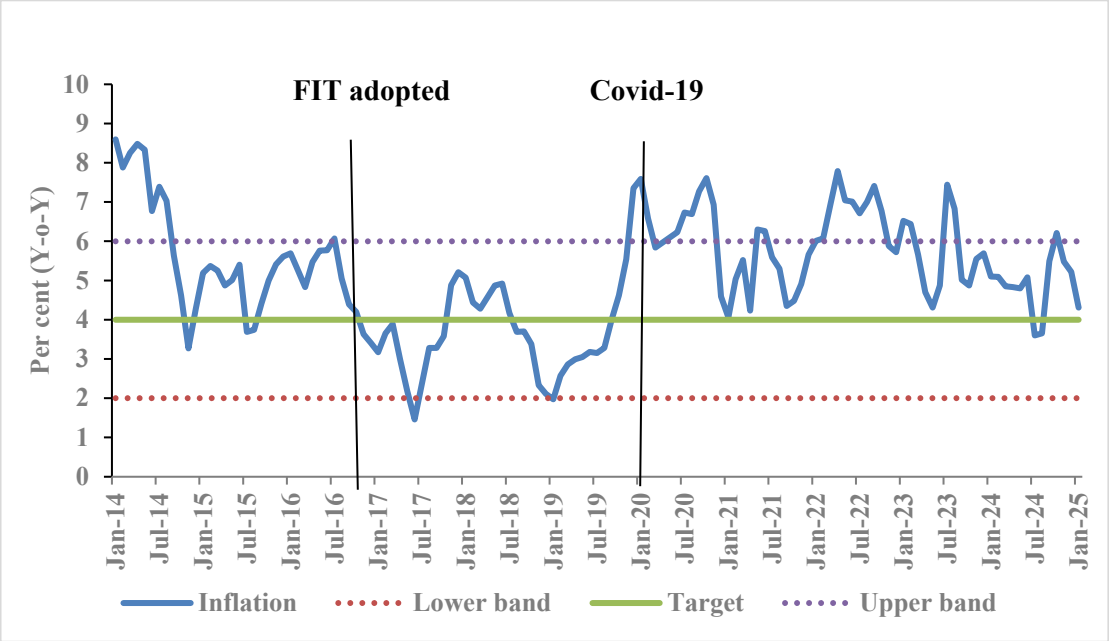
Appendix

Monthly headline CPI inflation in India

Graph A.1

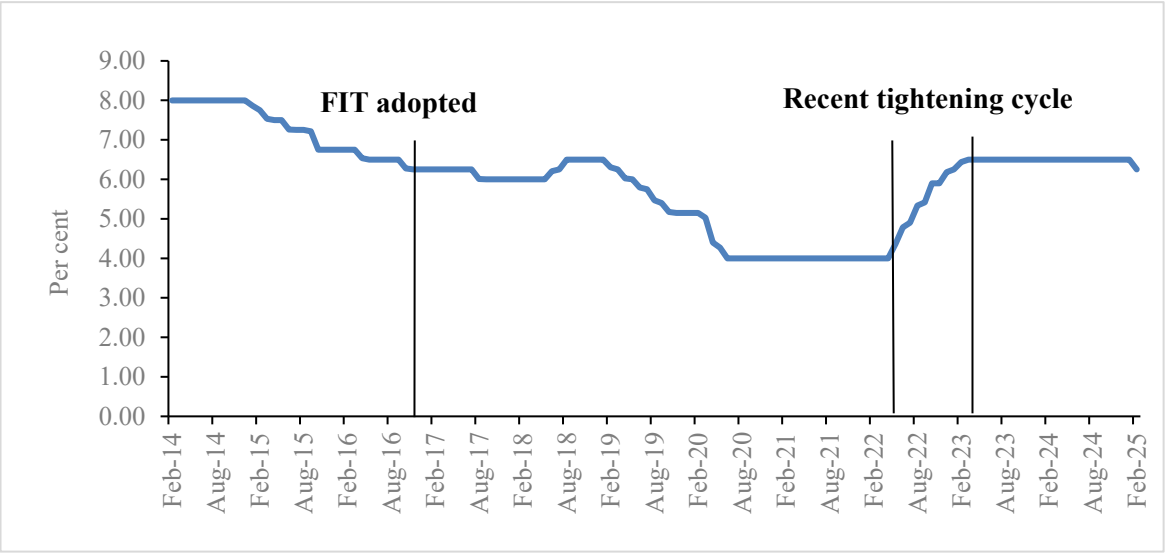


FIT = flexible inflation targeting.

Source: Ministry of Statistics and Programme Implementation.

Repo rate in India

Graph A.2



FIT = flexible inflation targeting.

Source: Reserve Bank of India