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Session I: Balancing Growth and Inflation in the Global South: The Indian Experience

The flexible inflation targeting (FIT) framework for monetary policy formally instituted in India in 2016 was a major structural reform of the 21st century. It brought about an era of price stability in the pre-COVID-19 period with inflation remaining low and stable, aligning with the 4 per cent target. Since then, despite several unprecedented shocks that have buffeted the economy, the flexibility embedded in the Indian FIT framework has helped monetary policy to respond decisively, swiftly and pre-emptively to emerging circumstances. The secular disinflation to target rate that is underway while remaining one of the fastest growing economies in the world is a testimony to the success of monetary policy in India to successfully navigate the rough macro-economic landscape of recent years.

Balancing Growth and Inflation: COVID-19 Challenges

In early 2020, the first wave of the COVID-19 pandemic brought the economy to a halt, severely disrupting almost all activities, including mobility. As the pandemic intensified, supply and logistics disruptions became severe, mark-ups rose to recover lost incomes and taxes on petroleum products were increased. The result was inflation breaching the upper tolerance band of 6 per cent in the second and third quarters of 2020-21, averaging 6.6 per cent and GDP contracting by a sharp 24.4 per cent in the first and 7.4 per cent in the second quarter of 2020-21. The Monetary Policy Committee (MPC) chose to hold off on any action, despite two consecutive quarters of inflation breaching the tolerance band, as the spike was driven by temporary factors. The MPC took the considered view that policy tightening in such a scenario would only accentuate the growth slowdown and impart higher volatility, without being able to properly address the first-round effects of temporary supply side shocks. This approach was in consonance with the flexibility embedded in our flexible inflation targeting framework, wherein the primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth.

The MPC's decision proved correct. In the fourth quarter of 2020-21, seasonal correction in food prices, coupled with improved supply conditions as the economy reopened, brought inflation down to an average of 4.9 per cent. Supportive financial

conditions created by monetary policy easing helped the economy recover, pulling it out of a technical recession in the third quarter and back to positive growth in the fourth.

The second wave of the COVID-19 pandemic in the first quarter of 2021-22 saw a resurgence of inflationary pressures from external shocks, particularly from the sharp rise in commodity prices, including crude oil and edible oil and heightened supply chain bottlenecks brought about by pent-up demand globally as economies opened up. A key takeaway from the experience of 2021-22 was India's inflation episodes. Food inflation was intermittently impacted by supply shocks, which were worsened by imported price pressures, especially from global edible oil prices, while rising crude oil prices pushed up core inflation later in the year.

With cost push pressures impacting core inflation and inflation expectations, the MPC's dilemma became sharper because firms showed evidence of some improvement in pricing power and the drivers of inflation were shifting. The MPC decided to maintain *status quo* on the policy repo rate, persevering with an accommodative stance to revive and sustain growth on a durable basis while ensuring that inflation remains within the target going forward. Forward guidance gained prominence in 2021-22 as the MPC shifted away from explicit time-contingent to state-contingent guidance since the start of the year. In keeping with this guidance, congenial financial conditions were maintained for sustaining the recovery. Ample liquidity bolstered market sentiments.

The monetary policy response to the COVID-19 shock has been prudent, targeted and calibrated to the need of the hour. In this regard, monetary policy was not tied down by any existing dogma or orthodoxy. While lowering the floor of the interest rate corridor and increasing its width, there was no dilution of collateral standards, with the aim of eventually reversing it in a non-disruptive manner. Monetary policy actions were complemented with appropriate regulatory and supervisory measures, including macro-prudential instruments, that reinforced the policy impact and its credibility.

This period also underscored the significance of government supply-side measures in alleviating price pressures, such as interventions in edible oils and pulses, and softening the impact of global crude oil price surges on domestic petrol and diesel

prices through timely reductions in excise duties and state-level Value Added Taxes (VATs), which were increased in 2020 following sharp downturn in crude oil prices. Additionally, the presence of economic slack helped to moderate the pass-through of rising input costs to firms' selling prices.

Balancing Growth and Inflation: Managing Impact of Ukraine War and Adverse Climatic Events

The global economy was recovering from the impact of successive waves of the COVID-19 pandemic by early 2022, aided by large policy stimulus and expanding coverage of vaccination, when the war in Ukraine jolted the upturn. Amidst strong global headwinds, Indian economic growth remained resilient. However, the precipitation of geopolitical tensions reignited inflationary pressures, which were further compounded by a series of adverse domestic climate shocks. Initially, the shocks came from the spike in global fuel and food prices, which got further accentuated by domestic adverse weather events. These shocks got transmitted to the retail prices of goods and services, as domestic economic recovery and rising demand enabled pass-through of the large pent-up input costs. This also imparted stickiness to underlying core inflation. The result was the generalisation and persistence of headline inflation at elevated levels during 2022-23. Overall, headline inflation increased to 6.7 per cent in 2022-23 from 5.5 per cent in 2021-22. The lagged pass-through of input costs to retail prices of goods and services amidst improving domestic demand conditions imparted considerable stickiness to already elevated core inflation that ruled at around 6.0 per cent through the year.

With heightened inflation pressures in early 2022 showing clear signs of generalisation and persistence, the monetary policy stance in April 2022 was quickly reprioritised to ensure that inflation remains within the target going forward while supporting growth. The policy stance was changed in April 2022 to remain focused on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth. As inflation spiked to 7.0 per cent in March 2022 and the MPC sensed that the near-term inflation outlook would deteriorate sharply amidst geopolitical tensions, it raised the policy repo rate by 40 bps to 4.40 per cent in an off-cycle meeting held in May 2022. In each of the subsequent meetings during 2022-23, the MPC raised the policy rate to keep inflation expectations anchored, contain

second-order effects, and align inflation with the target. Cumulatively, the MPC increased the policy repo rate by 250 bps during 2022-23 from 4.00 per cent to 6.50 per cent on top of an increase of 40 bps in the lower bound of the liquidity adjustment facility (LAF) corridor in April 2022. Accordingly, the overnight weighted average call money rate, the operating target of monetary policy, rose by 320 bps during the year, fully pricing in the cumulative policy actions.

The RBI adopted a nuanced and nimble-footed approach to liquidity management in sync with the change in the stance of monetary policy*, i.e.,* gradual reduction in the size of surplus liquidity in the system while meeting the credit needs of the productive sectors of the economy. Since 2022, what stood out was the highly coordinated monetary and fiscal policy response to tame heightened domestic inflationary pressures. The supply side measures taken by the Government included restrictions on wheat and rice exports; exempting imports of pulses from import duties; augmenting pulses buffer stocks for market intervention; release of key cereals from buffer stocks to market intermediaries at minimum support price and pulses at a discount to states and union territories; retail market sales of key cereals and pulses; stock limits for wheat and pulses; stock disclosure for rice, wheat and pulses; reduction in import duties on various edible oils; additional procurement and discounted sale of tomatoes and onions; restricting sugar exports; and cut in excise duties for petrol and diesel. These measures helped in containing the spiralling of domestic food and fuel price pressures. In the absence of complementary fiscal measures, the second-round effects of these cost push pressure could have been stronger, further exacerbating the inflation situation, which could have then put more burden on monetary policy to keep inflation expectations anchored and contain inflation.

In 2022-23, the pace of global economic activity was dragged down, *inter alia*, by restrictive monetary policy stances across most economies to tame inflation, protracted geopolitical tensions and sluggish recovery in China. The potential impact of climate change became increasingly evident, with economic losses due to extreme weather events. Global inflation, as per the IMF WEO, fell to 6.7 per cent in 2023 from 8.7 per cent in 2022 on the back of easing commodity prices, favourable supply conditions and monetary tightening across major economies, but still remained at its highest level in over two decades. Inflation in respect of core items and services

remained elevated, exhibiting persistence in major economies amidst tight labour market conditions. Against the backdrop of subdued global economic activity and multiple headwinds, the Indian economy was seen as a ‘bright spot’ in the global economy, with real GDP growth remaining resilient at 7.0 per cent.

Balancing Growth and Inflation: Managing Disinflation to Target Rate in the Midst of Recurring Food Price Supply Shocks

Since early 2023-24, inflation had decisively shifted downwards reflecting the combined impact of calibrated monetary tightening, easing of input cost pressures and supply management measures. Headline inflation softened to 5.4 per cent during 2023-24 from 6.7 per cent in the previous year, driven by the fall in core inflation (CPI excluding food and fuel) to 4.3 per cent from 6.1 per cent. However, recurrent food price shocks caused by unfavourable weather events, have slowed down the overall disinflation process. As a result, food inflation hardened amidst high volatility resulting in substantial divergence between food and core components. Sustained pressures from prices of cereals, pulses, spices and vegetables due to overlapping supply shocks pushed up food inflation to 7.0 per cent in 2023-24 from 6.7 per cent a year ago, thereby keeping headline inflation above the target.

Considering the growth-inflation dynamics, the MPC kept the policy repo rate unchanged at 6.50 per cent during 2023-24 and continued with the stance of withdrawal of accommodation to ensure that inflation progressively aligns with the target, while supporting growth. The MPC noted that monetary policy has to remain disinflationary to ensure fuller transmission and better anchoring of inflation expectations.

In 2024-25 so far, real GDP grew on account of robust consumption spending supported by rural demand, and investment activity maintaining its momentum supported by high-capacity utilisation. Headline CPI inflation has moderated to 4.6 per cent in April-September 2024 from 5.2 per cent in H2:2023-24, with base effects having an outsized role. In October, it surged to 6.2 per cent exceeding the upper tolerance band primarily on account of sharp increase in food prices. Core inflation was on a steadily declining path – in May 2024, it fell to its lowest level of 3.1 per cent in the current series (since January 2012) before increasing to 3.5 during July-October.

Food price inflation, on the other hand, remained elevated, averaging 7.5 per cent over April-October 2024, and contributing 72.5 per cent of headline inflation during the period.

Globally, there are concerns that the last mile of disinflation might be protracted and arduous amidst continuing geopolitical conflicts, supply disruptions and commodity price volatility. In India, the balance between inflation and growth is well-poised. With growth holding firm, monetary policy has greater elbow room to pursue price stability to ensure that inflation aligns with the target on a durable basis. In its current setting, monetary policy remains squarely focused on price stability to effectively anchor inflation expectations and provide the required foundation for sustained growth over a period.

The occurrence of multiple food price shocks, however, has been a major concern for monetary policy, with its adverse impact on the pace of disinflation to the target rate. In 2024-25 so far, recurring food inflation pressures have been frequently interrupting the disinflation process.

With high share of food (around 46 per cent) in the CPI basket and the public perception of inflation being more in terms of food than the other components of headline inflation, high food inflation is seeping into households' inflation expectations, with the potential for spillovers into non-food prices as demand for higher wages and rising input costs are eventually passed on as higher output prices, especially in a scenario of strengthening aggregate demand. As a result, there is a danger that the beneficial effects of lowering core inflation can be frittered away, with adverse implications for the disinflation process underway and for policy credibility. In the midst of these lingering uncertainties, the challenge facing monetary policy today is thatit has to remain vigilant to ensure successful navigation of the last mile of disinflation. Stable and low inflation at 4 per cent will provide the necessary bedrock for sustainable economic growth.

Recognising the risks from volatile and elevated food prices and their likely adverse impact on inflation expectations and spillovers to core inflation, the MPC, in its latest October 2024 meeting, kept the policy repo rate unchanged at 6.5 per cent. While inflation driven by food is expected to remain high in the near term, it is expected

tomoderate thereafter with better prospects for both kharif and rabi crops production and ample buffer stocks of foodgrains. Thus, there is now greater confidence about the final descent of inflation to the target rate. Considering the prevailing and expected inflation-growth dynamics, which are well balanced, the MPC in October 2024 decided to change the monetary policy stance from withdrawal of accommodation to 'neutral' and remained resolute in its commitment to aligning inflation with the target, while supporting growth. The change in stance was seen as providing flexibility to the MPC, enabling it to monitor the progress on disinflation which is still incomplete.

Looking ahead, evolving food inflation dynamics will impinge upon the outlook for inflation. The record levels of *kharif* agricultural production on the back of above normal south-west monsoon rainfall and significantly higher reservoir levels as compared to decadal average bode well for the inflation outlook. Nevertheless, rising global supply chain pressures, adverse weather events, volatile food prices and continuing geopolitical strife remain key risks. Taking into account the initial conditions, signals from forward-looking surveys and estimates from time-series and structural models, CPI inflation is projected to average 4.5 per cent in 2024-25 – 4.8 per cent in Q3 and 4.2 per cent in Q4, with risks evenly balanced. For 2025-26, assuming a normal monsoon and no further exogenous or policy shocks, structural model estimates indicate that inflation will average 4.1 per cent with 4.3 per cent in Q1, 3.7 per cent in Q2, 4.2 per cent in Q3 and 4.1 per cent in Q4.

The baseline forecasts are subject to several upside and downside risks. The upside risks emanate from uneven distribution of rainfall; prolonged geopolitical conflicts and resultant supply disruptions; recent uptick in food and metal prices; volatility of crude oil prices; and adverse weather events. The downside risks could materialise from an early resolution of geopolitical conflicts; weakening of global demand accompanied by further easing of global food and commodity prices; improvement in supply conditions; and proactive supply side measures by the government.

Real GDP growth is expected at 7.2 per cent in 2024-25 with 7.0 per cent in Q2; 7.4 per cent both in Q3 and Q4 - with risks evenly balanced around the baseline. For 2025-26, assuming a normal monsoon and no major exogenous or policy shocks, structural model estimates indicate real GDP growth at 7.1 per cent, with Q1 at 7.3 per cent, Q2

at 7.2 per cent, Q3 and Q4 both at 7.0 per cent. There are upside and downside risks to this baseline growth path. The upside risks emanate from robust government capex and revival in private investment; improved prospects of the agricultural sector due to favourable monsoon rainfall; strengthening manufacturing and services sector activity sustained by strong domestic demand; retreating global and domestic inflation; improvement in global trade; and earlier than anticipated easing of global financial conditions. On the contrary, further escalation in geopolitical tensions; volatility in international financial markets and geoeconomic fragmentation; deceleration in global demand; frequent weather-related disturbances due to climate change; and supply chain disruptions pose downside risks to the baseline growth path.

Looking back, there were several aspects of our conduct of policy that helped in taking decisive and timely action during the heightened inflationary pressures seen in the past few years. First, prudence was the cornerstone of the monetary policy response to the COVID-19 shock, with most of the extraordinary liquidity injection measures being targeted with pre-set terminal dates. This ensured an orderly unwinding of the monetary stimulus as growth recovered. Second, the Government also adhered to fiscal prudence, with fiscal deficits being kept in consonance with Budget Estimates. Third, the Indian experience is unique in view of the incidence of repetitive shocks to food and fuel prices, which challenged the conduct of monetary policy. In India, price stability is a shared responsibility under which the government sets the target, and the central bank achieves it. This allows monetary-fiscal coordination without posing risks to financial stability, fiscal consolidation or growth. In the presence of multiple and overlapping supply side shocks, monetary policy stance has been complemented by a series of proactive and targeted supply side measures taken by the Government. This perhaps could serve as a template for countries vulnerable to inflationary pressures emanating from supply shocks.

It is a matter of satisfaction that currently India's GDP growth is robust; inflation is moderating; the financial sector is stable; the external sector remains resilient; and the forex reserves are at an all-time high. The Indian economy is forging ahead with macroeconomic and financial stability, and a favourable growth-inflation balance. The policy mix pursued in recent years has strengthened the underlying fundamentals of the economy. Consumption, which had been our main driver of growth, has picked up

pace, with recovery in rural demand. Investors' confidence is at an all-time high; banks and corporates demonstrate robust balance sheets; and structural reforms are playing a big role in pushing forward our growth frontier.

Annex Table 1: Annual GDP Growth and Inflation

Financial Year	Average Real GDP growth	Average CPI Headline Inflation	Policy Rate (Repo)	Stance
	(per cent)	*(per cent)*	*(per cent)*	
2019-20	3.9	4.8	Max: 6% (04.04.2019) Min: 4.4% (27.03.2020)	• April 2019: Neutral Stance • June 2019 to March 2020: Accommodative Stance
2020-21	-5.8	6.1#	Max: 4.4% (21.05.2020) Min: 4.0% (22.05.2020)	• May 2020 to February 2021: Accommodative Stance
2021-22	9.7	5.5	4.0%	• April 2021 to February 2022: Accommodative Stance
2022-23	7.0	6.7	Min: 4.0% (08.04.2022) Max: 6.5% (08.02.2023)	• April 2022: Accommodative while focusing on withdrawal of accommodation • June 2022 to February 2023: Withdrawal of Accommodation
2023-24	8.2	5.4	6.5%	• April 2023 to February 2024: Withdrawal of Accommodation
2024-25	7.2*	4.5*		• April 2024 to August 2024: Withdrawal of Accommodation • October 2024: Neutral Stance

Note: # excludes the imputed CPI prints for April and May 2020.

* indicates projections for FY:2024-25 as made in the October 2024 MPC Meeting.

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Session II: Monetary Policy Communication: The Indian Experience

Introduction

Monetary policy making is not merely a science that is derived from formal models where we tweak some instrument to achieve macroeconomic stability, it is also an art from a practitioner's perspective where central banks are required to innovate and take policy calls amidst a dynamic and uncertain environment, as witnessed in recent years. Thus, communicating policy decisions with prescience and clarity, especially during uncertain times, has emerged not only as an important challenge but a necessary tool to enhance the effectiveness of monetary policy. Today, we are far from the 1980s and 1990s when central banks believed in generating policy surprises to ensure policy effectiveness. Central bankers then believed that they should be "*shrouded in mystery*", "*say as little as possible*" and "*say cryptically*". Former Chairman of the Federal Reserve Mr. Alan Greenspan had famously remarked "*if I seem unduly clear to you, you must have misunderstood what I said*".

Central Bank communication has evolved to become more transparent over the decades. Now, managing expectations through effective communication is a vital instrument in the monetary policy toolkit. This change can be attributed to two factors. First, as the remit and mandates of modern central banks expanded in the last half century or so, they have become increasingly accountable for their actions. In most countries now, central banks are required to demonstrate (i) that they are acting within their statutory mandate; and (ii) how are they delivering on that mandate. Second, central banks have realised that policy making can be more effective if changes are predictable. Now, there is a vast literature which points out that successful 'expectations management' by the central banks through effective and credible communication can increase the effectiveness of policy measures.

During the pandemic, communication became an additional pillar of the Reserve Bank of India (RBI)'s overall policy response. During this period, our focus has been on timely and proactive steps for ensuring macroeconomic and financial stability and accordingly, we took a whole host of measures. For these measures to be effective, it is equally important that we explain them to the public. Since investment and consumption decisions by businesses and households depend upon their

expectations, clear and transparent communication on policy objectives, instruments and measures by the central bank can help in reinforcing the impact of its actions in managing the growth-inflation trade-off.

Communication makes monetary policy accountable as the public can assess and measure its impact. This, in turn, makes it credible by binding the policy authority to its stated intent and limits discretion in seeking short-term gains at the cost of medium-term goals. This, in turn, avoids the “time inconsistency problem” of monetary policy, which is necessary for the central bank to enjoy reputation and achieve policy credibility. High credibility, in turn, obviates the need for large policy changes, or even any changes at all, if the public believes in the central bank’s reputation in delivering socially desirable macroeconomic outcomes, *i.e.*, low and stable inflation with sustainable growth. As a result, communication helps to anchor the expectations of the public to the goals of monetary policy so that policy makers and all stakeholders work with a common set of expectations. Stability in expectations around policy, its conduct and its goals foster macroeconomic stability which provides the bedrock for sustainable medium-term growth.

In a global economy clouded with uncertainties as has been the case over the last few years, communication backed up by credible actions has been a stabilising force in anchoring the expectations of economic agents and stake holders. Recognising this, our focus, nature and magnitude of communication has enhanced and evolved in sync with global and domestic conditions.

Monetary Policy and Communication – The Indian Experience

The Monetary policy framework in India has undergone significant evolution, particularly with the introduction of Flexible Inflation Targeting (FIT) in 2016. The framework which got embedded into law in 2016, established the primacy of price stability among policy objectives, while keeping in mind the objective of growth. In the FIT framework where transparency and accountability are paramount, monetary policy communication has emerged as a critical component, significantly influencing market expectations and behaviour. The role has been especially evident during the COVID-19 pandemic, when clear communication became essential in navigating uncertainty and anchoring expectations. During this period, more emphasis was given

on clearly communicating the rationale of policy measures and decisions which is crucial for conditioning market expectations.

At the Reserve Bank, we believe in two-way communication for informed policy decisions. With this objective, we hold detailed interactions with analysts, economists, researchers, banks, academic bodies and research institutions, trade and industry associations, and several others. We have followed this approach not only for the much-publicised monetary policy actions but also for other policies. We also recognise that communication needs to be backed by commensurate actions to build credibility and instil wider confidence among the public on our policies. We explain the rationale of our actions in the best traditions of accountability and transparency, the hallmark of a modern market-based approach to monetary policy making.

As part of monetary policy, we have actively used communication through a variety of tools – the Monetary Policy Committee (MPC) resolutions and minutes; exhaustive post-policy statements including those on developmental and regulatory measures; press conferences, speeches, and our other publications, such as the biannual Monetary Policy Report (MPR) – to anchor expectations. Our policies, especially the relative emphasis on inflation and growth are always based on an objective assessment of all relevant factors; and we make it a point to communicate our policy decisions, including through interactions with the media, to facilitate clarity in understanding. During 2019 when we embarked upon a cycle of rate cuts and change of stance from 'calibrated tightening' to 'neutral' and then to 'accommodative', the accompanying communications were unambiguous. On various occasions, we had stated "it is vital to act decisively and in a timely manner" to support growth; "to boost aggregate demand, and in particular, private investment activity"; and similar other pronouncements to provide market guidance. Since the inception of FIT, the RBI has increased the frequency of communication through regular press conferences, fireside chats, statements and reports that addressed the evolving economic issues. By presciently articulating the rationale behind major announcements, the bank helped to manage uncertainty and instil confidence among stakeholders and the public.

During the pandemic, *c*entral bank communication was tested to the hilt and on two major counts as the pandemic unfolded: (a) we had only the digital interface to communicate with media and other stakeholders, and (b) the target audience

changed from experts to the general public with its attendant challenges. The Governor's first statement of March 27, 2020 highlighted that the outbreak of the pandemic warranted not only an advancement of the date of the MPC meeting, but it also merited "a sizeable reduction of 75 basis points in the policy repo rate" which was "intended to (i) mitigate the negative effects of the virus; (ii) revive growth; and above all, (iii) preserve financial stability." The statement unfurled several other measures to combat the pandemic while reinforcing the much-needed optimism by stating "it is worthwhile to remember that tough times never last; only tough people and tough institutions do". The message was clear – we need to stand firm, maintain resilience and do whatever it takes to deal with the situation.

The communication during pandemic times, apart from explaining the measures being taken by the RBI, were also a source of confidence and optimism for the common man. The April 2020 statement made by the Governor stated "*Although social distancing separates us, we stand united and resolute. Eventually, we shall cure; and we shall endure*". The August 2020 monetary policy statement made by him said, "*The pandemic poses a challenge of epic proportions, but our collective efforts, intrepid choices, innovations, and true grit will eventually take us to victory*".

To further relate to the common man and put across the message clearly, the RBI used Mahatma Gandhi's famous quotes, *viz*.,

"…*In the midst of death life persists, in the midst of untruth truth persists, in the midst of darkness light persists*."…April 2020

"*It is when the horizon is the darkest and human reason is beaten down to the ground that faith shines brightest and comes to our rescue*."….May 2020

These and other such messages restored confidence, provided guidance and helped anchor expectations, all of which reinforced stability amidst turbulence.

The Reserve Bank's pandemic response was prompt and decisive, with more than 100 measures undertaken since March 2020. The Monetary Policy Committee (MPC) meetings were held ahead of the schedule on two occasions (March and May 2020). The Governor also delivered two other standalone statements outside the MPC cycle – one in April 2020 and the other in May 2021, the latter at the peak of the second (Delta) wave of COVID-19. Besides, there were regular press conferences by the Governor during the COVID lockdown, where he explained the policy steps being taken by the Reserve Bank to mitigate the impact of COVID on the economy, industry,

and members of the public. These off-cycle meetings, standalone statements and press conferences demonstrated the Reserve Bank's readiness to undertake prompt and pre-emptive actions. The unequivocal reassurance communicated to the public and other stakeholders through these statements along with the timely measures eased financial conditions considerably while unfreezing markets and reviving trading activity.

The importance of communication was well underscored during the pandemic. The bank used a consultative approach by interacting with various stakeholders on policy formulation periodically, which served well in designing appropriate policy responses from time to time. From this perspective, the Reserve Bank regularly interacts with various stakeholders on policy formulation.

As the pandemic progressed with intermittent bouts of inflation driven above the upper tolerance band by supply side factors, effective **forward guidance** on continuing with accommodative monetary policy was highly effective in reinforcing the impact of our conventional and non-conventional monetary policy actions. At the height of the pandemic during 2020 and 2021, the MPC prioritised growth over inflation. In fact, when inflation was above the upper tolerance level of 6 per cent in July-August 2020, the MPC provided both state- and time-based forward guidance by stating its intent to continue "*with the accommodative stance of monetary policy as long as necessary – at least during the current financial year and into the next year* …", as output remained well below its pre-pandemic level. Inflation eased in the second half of 2020-21 in line with the MPC's assessment as supply side pressures abated. The time-based element of the guidance did help in anchoring market expectations and stymied expectations building up at that time of a possible reversal of the monetary policy stance. Communication exemplifying explicit forward guidance, whose role and nature is continuously evolving, came to the fore in April 2021 on the eve of the virulent second wave of infections. The MPC reverted from both state- and time-based forward guidance to state-based guidance, realising that "it is difficult to perfectly foresee how the economy evolves and when the recovery gets firmly entrenched given the persistence of the pandemic."

The focus has always been on anchoring of inflation expectations by emphasising our firm commitment to align inflation with the target on a durable basis. Transparency in specifying measures like Targeted Long-Term Repo Operations (TLTROs) and

special liquidity facilities helped in coven ying the RBI's intentions to the market. Our asset purchase programme – G-sec Acquisition Programme (G-SAP) – provided an upfront commitment to a specific amount of open market purchase of government securities. This measure anchored interest rate expectations and facilitated monetary transmission.

On the whole, we provided guidance and confidence to the market and the wider public through effective communication as part of our endeavour to anchor expectations and condition sentiments appropriately. Thus, communication became an additional pillar of our overall policy response during the pandemic.

Communication during Rebalancing

Recognising that easy monetary policy sustained over a long period could sow the seeds of financial instability, the Reserve Bank commenced **liquidity rebalancing** in 2021 itself. With the second wave of the pandemic still persisting, it was not feasible to unwind and withdraw the liquidity from the system fully. Accordingly, without altering overall liquidity, the RBI gradually migrated liquidity from the short end towards the long term. This recalibration of interest rates presented its own set of communication challenges. Markets feared reversal of policy easing which required careful and nuanced communication to align market expectations with our assessment. Illustratively, the Governor's policy statement of February 2021 addressed market fears of reversal of monetary policy which were building up due to resumption of liquidity absorption operations through variable rate reverse repo (VRRR) operations in January 2021. This was done by explicitly explaining the rationale for the reintroduction of VRRR auctions. Similarly, liquidity rebalancing was set in motion in August 2021 through periodic upscaling of the 14-day main VRRR auction, with the explanation that liquidity conditions need to "evolve in sync with the macroeconomic developments to preserve financial stability".

The assurance given to the markets, the people and all other stakeholders through statements like "We will continue to think and act out of the box, planning for the worst and hoping for the best (June 2021); "The Reserve Bank remains in 'whatever it takes' mode, with a readiness to deploy all its policy levers – monetary, prudential or regulatory" (August 2021) demonstrated the central bank's commitment in remaining

steadfast in safeguarding stability and restoring confidence in the domestic financial system.

Communication during Tightening

In the **subsequent tightening phase** which commenced in April-May 2022, the scale and nature of communication has been appropriately fine-tuned and calibrated, so as to ensure successful transmission of policy rate hikes. Given that the period since then has been full of uncertainty, actions have been backed by clear and consistent communication for effective monetary policy impact. Besides, to support RBI's actions some of the quotes used were: "*If we want to overtake the storm that is about to burst, we must make the boldest effort to sail full steam ahead*" (June 2022) and "…*we are ever wakeful, ever vigilant, ever striving*." (September 2022).

Furthermore, when **prudential measures** to such as enhancing risk weights on credit extended to certain sectors **were undertaken in November 2023**, it was well communicated and clarified in the December 2023 Governor's policy statement and press conference there after that, " *financial stability is a public good…….we do not wait for the house to catch fire and then act. Prudence at all times is our guiding philosophy*." These helped in clarifying that these measures were not aimed at curtailing growth but were part of the pre-emptive actions to instill prudence in certain sectors. Besides, issues surrounding difficult trade-offs like price and financial stability were addressed through several of Governor's speeches. Thus, communication has undeniably played a critical role in maintaining stability in the recent past amidst highly turbulent times.

Research on Communication at the Reserve Bank

On the lines of cross-country literature, research at the Reserve Bank of India in the recent past has also focussed on various aspects of communication and its effectiveness *viz.*, expectations anchoring and expected policy rate path, through the monthly bulletins, Monetary Policy Reports (MPR), etc. While some of the early studies covered the role of Survey of Professional Forecasters (SPF) in gauging rightly the policy rate direction[1], analyses on Overnight Indexed Swaps (OIS) also got covered in banks' research indicating market expectations are better anchored in

[1] Report on Currency and Finance, *Reserve Bank of India 2021.*

the post-FIT period.[2] Of late, research have increasingly focused more on the information content of policy documents using text mining techniques. Similar study on MPRs revealed that the tone, focus and clarity of banks' bi-annual publication fared well in the post-FIT regime with estimated sentiment moving in tandem with key macro-economic variables.[3]

Concluding Observations and Way Forward

In today's global economy clouded with uncertainties, monetary policy action and consistent communication can be a stabilising force by anchoring the expectations of economic agents. Clarity and consistency in action and communication is a time-tested principle for effective monetary policy. Communication is a very powerful tool to anchor expectations during turbulent times and in tempering expectations during periods of exuberance.

RBI communication on monetary policy has also undergone significant changes. It has become clearer, continuous and mostly calendar based. The frequency of communication has gone up while its nature has been simplified and scope has been enhanced to cover all stakeholders including members of the public, recognising that public understanding can help ease the way for reforms, as well as increase support for policies.

Nevertheless, one needs to recognise that communication must be balanced – too much of it may confuse the market while too little may keep it guessing. Effective communication is like a good recipe. One must get all the ingredients in the right proportion to make it palatable. Most of the times, communication is bit of walking the tight rope for the central bank in the face of strong cross winds. Central banks must always be careful in their communication to avoid any inconsistency between what they say and what is understood and interpreted by the markets and stakeholders. Everyone tries to dissect and parse each word, probably looking at the synonyms and semantics in search of the meaning which was not conveyed or intended in what they speak. Any difference in perception between the two could have unintended consequences or dilute the impact of policy actions. Communication needs to be

[2] Monetary Policy Report, *Reserve Bank of India, October 2021*.
[3] Monetary Policy Report as a Communication Tool: Evidence from Textual Analysis, *RBI Bulletin*, December 2023.

backed by commensurate actions to build credibility. We tread a very fine line and constantly endeavour towards refining our communication strategies.

Going ahead, one needs to keep abreast of the developments. Today's fast-paced world requires continious engagement through a process of learning, unlearning, and relearning. The ever-changing modes of communication are also keeping eveyone alert, so much so that often it seems that one is chasing a moving target. With the advent of the social media, communication is instantaneously consumed, assimilated, and commented, all within few seconds and in a few hundred words. As far as central banks are concerned, there is no one-size-fits-all approach for communication. As monetary policy is an art of managing expectations, central banks must make continuous efforts to shape and anchor market expectations, not just through pronouncements and actions but also through a constant refinement of their own communication strategies to ensure the desired societal outcomes.

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Session III: Expanding Digital Payments and its Impact on the Economy

Payments and Settlement Systems in India: Steps Taken to Enhance the Resilience, Safety and Efficiency – Major Developments

In the sphere of payments and settlement systems, Reserve Bank has made significant strides, working towards enabling 'state-of-the-art' payment systems in the country. The Reserve Bank has been acting as a catalyst in the development of payments ecosystem in the country. Today, India has one of the most modern payment systems in the world with multiple systems facilitating credit transfers, fast payments, bulk repetitive payments, merchant payments, bill payments, toll payments, etc. Payment systems are available on feature phones and in offline mode with fund transfers / authentication facilitated leveraging Aadhaar infrastructure to ensure penetration across the country. The nurturing of innovations through pilots / regulatory sandbox / innovation contests have ensured innovative solutions for a wide array of users enhancing adoption of digital payments. The consultative approach to regulation with stakeholders collectively working on initiatives to enhance the ecosystem has played a huge role in recognising the infrastructure facilitating digital payments as a Digital Public Good in India. Setting up a Self-Regulatory Organisation is underway to work towards establishing minimum benchmarks, standards and help instil professional and healthy market behaviour among stakeholders.

The Reserve Bank has been releasing a Vision Document since 2001, every three years, for payments ecosystem in the country enlisting the strategy and roadmap for implementation. Over the years, our focus has shifted from moving to a less-cash society to providing users access to a bouquet of e-payment options that is safe, secure, fast, convenient, accessible and affordable. The driving force is to ensure e-Payments for Everyone, Everywhere, Every time.

RBI, while laying emphasis on innovations, has also ensured that the systems are cyber resilient, inclusive, ensure customer protection and competition. Attaining these objectives have been made possible by empowering payment system operators and service providers, and putting in place forward-looking regulation, supported by risk-

focussed supervision. In this regard, the major steps taken to revolutionise the payments landscape during the previous five years are as under:

Regulatory Enablement: Improving Resilience of Payment Systems

i. Continuing with our efforts to improve safety and security of card transactions, Reserve Bank of India permitted card networks for tokenisation[4] of cards on mobile phones / tablets, other consumer devices – laptops, desktops, wearables (wrist watches, bands, *etc*.), Internet of Things (IoT) devices, *etc*. A tokenised card transaction is considered safer. Tokenisation has enabled authorised card payment networks to offer card tokenisation services to any token requestor (*i.e.*, third party app provider). This enablement facilitated the storing of cards as tokens on mobile phones / tablets using Near Field Communication (NFC) / Magnetic Secure Transmission (MST) based contactless transactions.

ii. A framework to facilitate e-mandates on cards and PPIs was issued in August 2019 to encourage digitisation of recurring payments like monthly subscriptions, insurance premia payments, systematic investment plans, bill payments, *etc*. It couples convenience with adequate safety like Additional factor authentication (AFF) for the first transaction, e-mandate registration, modification and revocation. This framework was subsequently extended to cover UPI based payments. To address the friction and customer inconvenience in the creation, processing and cancellation of e-Mandates for recurring digital payments transactions, a regulatory framework was issued, which requires customer authentication for creating an e-mandate, prior intimation to the customer before effecting debit to account and providing options to discontinue / cancel such mandates. For the first time, these regulations were also made applicable to all transactions originated by merchants outside India also.

iii. Access to Centralised Payment Systems (The Real Time Gross Settlement System- RTGS and the National Electronic Funds Transfer NEFT) has been opened to non-bank PSOs such as Prepaid Payment Instruments (PPI), White Label ATM Operators (WLAO) and Card Networks, as well in 2021.

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[4] Tokenisation: replacement of actual card details with a unique alternate code called the “token”, which is unique for a combination of card, token requestor and device.

iv. The Cheque Truncation System (CTS) enables use of the image of cheque for payment processing, thereby eliminating the need for physical movement of cheques, with concomitant benefits of reduced turnaround time for clearing of cheques. Under CTS, cheque processing locations in India were consolidated into the three grids in Chennai, Mumbai and New Delhi. Subsequently, the 'One Nation, One Grid' has been implemented to facilitate faster realisation of outstation cheques. This system also benefits banks with easier fund management, streamlining of infrastructure and overall efficiency improvements. Further, as announced recently, we are migrating cheque clearing to continuous clearing arrangement, in which cheques will be scanned, presented, and passed in a few hours and on a continuous basis during business hours.

v. To promote offline digital payments (where both the payer and payee are offline), a Framework was issued in January 2022, with an aim to encourage technological innovations that enable small value digital transactions in offline mode, using cards, wallets, mobile devices, *etc*. The availability of options to make offline payments will boost the use of digital payments, in areas constrained by the absence of, or erratic, internet connectivity, especially in remote areas.

vi. In March 2022, the Reserve Bank prescribed a framework for geo-tagging of payment acceptance infrastructure deployed by banks and non-bank PSOs. Geo-tagging will provide insights on regional penetration of digital payments by monitoring infrastructure density across different locations.

vii. In June 2023, the scope of TReDS[5] was expanded by including Insurance companies as the fourth participant and permitting eligible Non Bank Financial Companies to participate as factors.

viii. In March 2024, it was mandated that customer be provided the facility to choose among multiple card networks and banks were advised not to enter any arrangement with card network that may limit their ability to tie-up with any other card network.

[5] Trade Receivable and Discounting System (TReDS) is a platform for uploading, accepting, discounting, trading and settling invoices / bills of MSMEs and facilitating both receivables as well as payables factoring (reverse factoring)

ix. To ensure that the authorised non-bank Payment System Operators (PSOs) follow cyber-security best practices and are resilient to existing and emerging information systems and cyber security risks, we have recently[6] issued comprehensive directions that include robust governance mechanisms for identification, assessment, monitoring and management of cyber risks.

x. The Centralised Payments Fraud Information Repository (CPFIR) was operationalised in March 2020 to track the payment-related frauds reported by banks and non-bank PSOs.

Enhancing Safety and Security

i. Recently[7], RBI released a draft "Framework on Alternative Authentication Mechanisms for Digital Payment Transactions" to enable the ecosystem to adopt alternative authentication mechanisms. This is intended to widen the choice of authentication factors available to PSOs and users.

ii. The Reserve Bank mandated that, after September 30, 2022, entities other than card networks and card issuers cannot store customer card data. The initiative was undertaken to prevent misuse of card data for unauthorised transactions and subsequent monetary loss to card holders.

iii. Framework for outsourcing of payment and settlement related activities by PSOs was released in August 2021. As the banks and non-banks rely heavily on outsourced service providers for carrying out their functions, these guidelines are aimed at putting in place minimum standards to manage risks emanating / likely to emanate from third parties thereby promoting system-wide security.

iv. Positive Pay Mechanism has been introduced in cheque clearing, which has reduced scope for cheque frauds.

v. The Reserve Bank has announced its intention to set up pioneering Digital Public Infrastructure such as a cloud facility for the financial sector in India to secure data privacy, improve scalability, and ensure business continuity and a Digital Payments Intelligence Platform to address the growing menace of digital payment frauds. RBI has also piloted a Public Tech Platform for Frictionless Credit (now branded as Unified Lending Interface).

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[6] In August 2024

[7] On Jul 31, 2024

vi. The Reserve Bank permitted banks, ATM networks and White Label ATM Operators (WLAOs) to provide an option of Interoperable Card-less Cash Withdrawal (ICCW) at their ATMs. Under this facility, UPI is used for customer authentication during ATM transactions with the settlement facilitated through the National Financial Switch (NFS) / ATM networks. The absence of need for a card to initiate cash withdrawal transactions would help contain frauds like skimming, card cloning and device tampering.

vii. The centralised payment systems which include RTGS and NEFT, are owned and operated by the Reserve Bank. To enhance the robustness of the centralised payment systems, their self-assessment against the PFMIs was carried out in 2023-24. Such self-assessments will be carried out annually from 2023-24.

viii. The scope of the System Audit Report - which the authorised PSOs are required to furnish annually - was reviewed and enhanced to ensure standardisation and comprehensive coverage of all relevant areas of information system processes and applications to be covered as part of the audit.

ix. LEI number facilitates unique identification of the parties involved in financial transactions worldwide, thereby, improving quality and accuracy of financial data systems and ensuring better risk management post the global financial crisis. The Reserve Bank has introduced LEI number for all payment transactions of value ₹500 mn. and above, undertaken by entities (non-individuals) using centralised payment systems, viz., RTGS and NEFT in the year 2020-21.

Customer Protection and Convenience

i. Under the Ombudsman Scheme for Digital Transactions, 2019, the payment system operators were brought under the ambit of RBI Ombudsman scheme.

ii. An Internal Ombudsman Scheme was put in place to cover large non-bank PPI issuers with more than 10 mn outstanding PPIs to start with. Complaints of customers are redressed at the level of the PSO itself – by the highest-level authority of its grievance redressal mechanism.

iii. A large number of customer complaints emanate from delay in recrediting on account of unsuccessful or 'failed' transactions, not directly attributable to the customer. To address this issue a framework for Turn – Around- Time for failed transactions and compensation for non-compliance was issued. This guideline has helped in streamlining the dispute resolution for such failed transactions.

iv. To enhance the security of card-based transactions various instructions were issued to give the customer the facility to switch on / off and set / modify transaction limits (within the overall card limit, if any, set by the issuer) for all types of transactions – domestic and international, at PoS / ATMs / online transactions / contactless transactions, *etc*.

v. Leveraging on the technological advancements, an Online Dispute Resolution (ODR) system was introduced in 2020 for resolving customer disputes and grievances pertaining to digital payments. Through a system-driven and rule-based mechanism with zero or minimal manual intervention.

vi. The Reserve Bank advised authorised PSOs to implement an ODR system for disputes and grievances related to failed transactions in their respective payment systems by January 1, 2021.

vii. Under the guidance of the Reserve Bank, NPCI in association with the payments industry set-up a centralised industry-wide 24x7 helpline for digital payments christened – DigiSaathi. The 24x7 helpline provides a channel to obtain help on the entire gamut of digital payments.

viii. The Reserve Bank extended the scope of BBPS[8] to permit cross-border inward payments by providing NRIs additional options to undertake utility, education, and other bill payments on behalf of their families in India. NRIs can now benefit from the standardised bill payment experience, centralised customer grievance redressal mechanism and prescribed customer convenience fee offered by the BBPS.

Enhancements in UPI: Several UPI related enhancements have been introduced over the years in an attempt to leverage on this popular payment system.

[8] Bharat Bill Payment System- an integrated bill payment system in the country offering interoperable and accessible bill payment service to customers through a network of agents, enabling multiple payment modes, and providing instant confirmation of payment.

i. UPI Lite was introduced to provide greater customer convenience for transacting small-value transactions and reduce the burden on banks' CBS.
ii. UPI123Pay – brought the feature-phone users to use UPI in a seamless manner.
iii. Credit Card on UPI – Considering the shift in Indian consumer spending post-COVID, the value of credit card spending has surpassed the value of debit card. To give impetus to this changed mindset, RuPay credit card was permitted to be used in UPI rails.
iv. Credit Line on UPI – Pre-sanctioned credit lines were permitted to be used on UPI to promote innovative means of extending credit to the needy sections.
v. UPI LiteX – was launched as part of promoting offline digital payments.
vi. 'Conversational Payments' was enabled in UPI to allow users to engage in conversation with an artificial intelligence (AI)-powered system to initiate and complete transactions in a safe and secure environment.
vii. UPI has the feature for processing mandated recurring transactions and single-block-and-single-debit which is used in initial public offer (IPO) subscriptions and is observed to be utilised in over 50 per cent of the IPO applications in the last two years. The Reserve Bank permitted the introduction of single-block-and-multiple debits functionality in UPI to further enhance the capabilities in UPI by enabling a customer to create a payment mandate against a merchant by blocking funds in his / her bank account for specific purposes which can be debited, whenever needed.
viii. Delegated payments were introduced to enable unbanked segments like children and senior citizens of the population to also have access to UPI payment options.
ix. The Reserve Bank enhanced the limit for UPI payments made to hospitals and educational institutions from ₹1 lakh to ₹5 lakh per transaction in the year 2023-24.

New Payment System Initiatives

i. RBI has assigned the building of an interoperable internet banking Switch to NPCI Bharat Bill Pay (NBBL). This system will enhance the use of online channels for large value payments like tax, B2B payments etc.

ii. NBBL has also launched in consultation with RBI a B2B payment product as part of these Bill Pay feature. This payment segment will help business in solving their invoice payment frictions.

Promoting Digital Payments: Some of the measure taken for promotion of digital payments in the country are:

i. Reserve Bank with effect from July 1, 2019, waived all processing charges and time varying charges levied on banks for outward transactions undertaken using the RTGS/NEFT. Banks were also advised to pass on these benefits to their customers for undertaking transactions using the RTGS and NEFT systems. Subsequently on December 16, 2019, it was further mandated that the banks shall not levy any charges from their savings bank account holders for funds transfers done through NEFT system which are initiated online.
ii. A new type of PPI was introduced in December 2019, which can be loaded/re-loaded only from a bank account and/or a credit card and can be issued based on essential minimum details sourced from the customer. It seeks to ease the issuance and usage of small value PPIs.
iii. NEFT was made operable 24x7x365 in December 2019. RTGS was also made operable on a 24x7x365 basis in December 2020. Round the clock availability of RTGS has provided extended flexibility to businesses for effecting payments and enabled introduction of additional settlement cycles in ancillary payment systems.
iv. In December 2019, the Reserve Bank permitted all authorised payment systems and instruments (non-bank PPIs, cards and UPI) for linking with the FASTags (tags affixed on a vehicle's windscreen used for identifying the vehicle). The purpose was to further broad-base the NETC[9] system by allowing a bouquet of payment choices for customers, as well as to foster competition among the system participants. NETC system was also enhanced to allow it to be used for parking fee and fuel payments, in an interoperable manner.
v. For the digital payments to be adopted by the masses, it is necessary that a suitable acceptance infrastructure is enabled covering the last mile. For this purpose, the Reserve Bank established Payment Infrastructure Development

[9] National Electronic Toll Collection (NETC) system

Fund (PIDF) in 2021 with an objective to subsidise deployment of payment acceptance infrastructure (PoS, QR, Soundboxes *etc*.,) in the focus areas – Tier-3 to 6 cities, North Eastern States and J&K. Presently, nearly 36mn devices have been subsidised under PIDF, of which about 50 per cent have been deployed in Tier-5 and 6 centres.

vi. To capture the growth in digital payments in the country a Digital Payment Index (DPI) was conceptualised and constructed in 2021. The index comprises 5 broad parameters[10] to measure the deepening and penetration of digital payments. As on March 2024, DPI stood at 445.50 (Y-o-Y increase of 12.60 per cent). DPI has increased across all parameters, driven by significant growth in payment performance and payment infrastructure across the country over the period.

Customer Awareness Measures

I. Digital payments penetration and adoption needs to be supported by digital literacy. Several initiatives which were undertaken in this regard include allocating nodal officers from the Department for co-ordinating with the Regional Offices of the Reserve Bank; standardising material for educating various target categories such as students, banks and merchants; participating in media workshops; conducting payment system related programmes in the Reserve Bank's training establishments and IDRBT.

II. In addition, the Reserve Bank also released digital awareness material through print, audio-visual media as also online through its flagship programme, "RBI Says."

III. As part of Digital Payment Awareness Week, Mission "Har Payment Digital" was launched in March 2023. Numerous customer awareness programmes have been organised by RBI offices spread across the country, banks and non-bank PSOs with an objective to inculcate the culture of safe and secure digital payment transactions.

[10] These parameters are Payment Enablers (weightage 25%), Payment Infrastructure Demand-side factors (10%), Payment Infrastructure Supply-side factors (15%), Payment Performance (45%), and Consumer Centricity (5%).

Internationalisation of Indian Payment Systems

I. As a part of efforts to enhance cross border payments, RBI has been facilitating the global outreach of expanding the footprint of India's Fast Payment Systems (FPS), the UPI as well as the Rupay Card payment network.

II. Linking the UPI with FPS of other countries enables both inward and outward remittance payments. Currently, such linkage is live with Singapore since February 2023 and implementation of similar projects with UAE and Nepal are in progress.

III. Acceptance of India's UPI apps via QR Code has been operationalised in Bhutan, France, Mauritius, Nepal, Singapore, Sri Lanka, and the UAE, which enables Indian tourists, students, and business travellers in other countries to make payments to merchants using their Indian UPI apps.

IV. Indian RuPay (domestic) cards acceptance is presently live in Nepal, Bhutan, Mauritius, Singapore, UAE and Maldives. Furthermore, the issuance of RuPay cards is live in Bhutan and Mauritius. The arrangements enable acceptance of Mauritius and Bhutan RuPay cards in India as well.

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Session IV: Panel of Governors – Sharing of Experiences and Policy Perspectives

In the 21st century, central banks have firmly established their credentials as the ultimate warriors against financial and economic crises. During the Global Financial Crisis (GFC), they showed their ingenuity by conceiving and implementing several unconventional measures to protect the financial system's plumbing. Again, when the COVID-19 pandemic engulfed the global economy, they were at the forefront protecting their economies by cutting interest rates to historical lows, expanding their balance sheets to distended dimensions, and revamping communication to restore confidence and stability.

Recent years have been particularly challenging for the central banks amidst a string of unprecedented and overlapping shocks. The global economy has gone through a once-in-a-century pandemic, a once-in-a-generation global conflagration of inflation and one of the most aggressive tightening of monetary policy in the recent economic history, all in a span of less than five years. Unfortunately, the trials of the global economy have not come to an end amidst the ongoing wars in various parts of the world disrupting supply chains, geopolitical conflicts and geoeconomic fragmentations restricting trade, technology and capital flows, and weaker growth and elevated interest rate raising debt sustainability challenges in various countries.

As if these were not enough to unnerve policymakers, newer challenges have come to the fore. Technology is fast changing the financial landscape. While innovations offer immense opportunities, they also pose challenges. To make the best use of technology, central banks need to strike a fine balance between fostering innovation while simultaneously guarding against its potential pitfalls. Climate change is another formidable challenge for central banks, with its impact on the economies and financial systems all too visible. While resetting their policies to account for the economy-wide effects of climate change, central banks will also have to play a leading role in finding innovative solutions to this existential challenge for humanity.

To its credit, the world economy has remained resilient in spite of the recent wave of difficulties. Inflation is drawing closer to the target, although at a tardy pace. Growth varies across regions, but it has held up better than expected, pointing to soft landing

as the more probable scenario. Monetary authorities have pivoted towards policy easing, although there is much uncertainty about the future trajectory of monetary policy. Financial markets have remained buoyant, suggesting greater optimism or perhaps ignorance of risks, and overreactive to any piece of new information, causing volatility spikes. In sum, while the global economy has managed to hold its ground in the stormy weather of the last few years, clouds of uncertainties still loom on the horizon.

Policy making under uncertainty is akin to driving a car through a foggy path ridden with speedbumps. These are conditions which test the drivers' patience and skills. If the recent past is any indication, policymakers would do well to remain in readiness for shocks, which are not typically considered in macroeconomic textbooks with standard policy responses. In the post-pandemic world characterised by geopolitical and geoeconomic fractures, central banks are treading unfamiliar territory without the help of a template or model. The existing models that central banks use may fall short of reflecting the realities of today's world. Historical regularities are looking improbable, and policymakers are being put to test. When the history of recent times will be written, the experiences and learnings of the last few years will, in all probability, be a turning point in the evolution of central banking.

Recent Macroeconomic Developments in India

Growth

The Indian economy was already in a cyclical downturn when it was hit by the COVID-19 pandemic. In line with the experience of countries across the globe, the Indian economy was severely impacted by the pandemic as mandatory and voluntary distancing slowed the wheels of the economy, especially in the contact-intensive service sectors. As a result, GDP for 2020-21 contracted by 5.8 per cent after having recorded a modest growth of 3.9 per cent in the previous year.

The economy rebounded strongly from the COVID-19 induced contraction, growing at an impressive annual average rate of 8.3 per cent during 2021-24. For 2024-25, the Reserve Bank has projected a growth rate of 7.2 per cent. The IMF has also revised India's GDP growth upwards to 7.0 per cent, citing improved prospects for private

consumption, particularly in rural areas. The World Bank has also upgraded India's growth forecast to 7.0 per cent for 2024-25.

The prospects for the agriculture sector is boosted by good monsoon, ample reservoir position and conducive soil moisture conditions. Manufacturing activity is supported by improving domestic demand, lower input costs and an enabling policy environment. The services sector, which contributes around two-thirds to GDP, continues to maintain strong growth momentum.

The growth outlook reflects the underlying strength of India's macro-fundamentals, with domestic drivers – private consumption and investment – playing a major role. The government's thrust on capex and healthy balance sheets of banks and corporates are expected to support private investment. Private consumption, the mainstay of aggregate demand, appears to be on track for a strong improvement as agricultural growth picks up pace and rural demand gains strength. Sustained buoyancy in services would also support urban demand.

Inflation

The inflationary dynamics during much of 2020 and 2021 was largely driven by supply-side shocks, emanating from COVID-19 lockdowns and adverse weather events. The monetary and fiscal stimuli were measured and targeted. Inflation was largely caused by temporary disruptions in supply. The monetary policy committee (MPC) of the Reserve Bank was, therefore, able to look through the intermittent higher inflation prints with the aim of supporting economic growth during and in the aftermath of the COVID-19 pandemic.

In early 2022, with the waning of COVID-19 shocks on inflation, gradual easing of supply bottlenecks and forecast of a normal monsoon, inflation was expected to witness a significant moderation to the target rate of 4 per cent by Q3:2022-23. These expectations were completely overturned by the war in Ukraine. Initially, the shocks came from the spike in global fuel and food prices, which got further accentuated by local adverse weather events. These shocks got transmitted to the retail prices of goods and services, as domestic economic recovery and rising demand enabled pass-through of the large pent-up input costs. This also imparted stickiness to the underlying core inflation. The result was a generalized inflationary impulse.

In the aftermath of the war in Ukraine, inflation rose to a peak of 7.8 per cent in April 2022. Frontloaded monetary policy tightening with a cumulative 250 bps increase in the policy rate and a stance of withdrawal of accommodation brought inflation down to an average of 5.4 per cent in 2023-24*, i.e.,* back into the tolerance band. It is projected to average 4.5 per cent in 2024-25 and 4.1 per cent in 2025-26. This reflects the cumulative impact of steadfast monetary policy actions and supply management. Inflation fell below target during July-August but rose to 5.5 per cent in September and 6.2 per cent in October on the back of a pickup in price momentum in some food items and adverse base effects. The Reserve Bank's projection indicates that these price pressures will persist in October and November before headline inflation realigns with the target from December 2024 and remains aligned in 2025-26. The taming of inflation lays the foundations of sustained high growth in the future by improving consumption conditions, the investment outlook and external competitiveness.

Indian Economy: A Paragon of Stability

The Indian economy has emerged from the recent spate of shocks with stronger fundamentals – inflation is easing; bank and corporate balance sheets are stronger than before; fiscal consolidation is on course and its quality has improved; and the external balances are eminently manageable with strong forex reserves. In addition, the structural reforms undertaken by the government over the last few years in the field of taxation, banking, ease of doing business, manufacturing, inflation management, digitalisation coupled with a clear focus on physical and digital infrastructure have boosted the medium and long-term growth potential of the economy.

The strength of the external sector remains key in managing global spillovers and volatilities. In the last decade, India has made significant strides in improving its external balance. The current account deficit (CAD) is modest at around 1 per cent of GDP. India has been a recipient of capital inflows, drawn by its robust macroeconomic fundamentals and stability. This provides insulation to the Indian economy from external shocks and imparts viability and strength to the external sector. India has utilised the opportunity provided by strong international investors' interest to build up foreign exchange reserves. India's exchange rate is among the least volatile in the world.

Another aspect of macroeconomic stability is the ongoing fiscal consolidation. India's higher growth and improving quality of fiscal spending support its sustainable debt trajectory. The general government debt, which is estimated at 81.6 per cent of GDP at the end of March 2024 by the IMF, is expected to decline to 78.2 per cent by end of this decade.

Despite multiple shocks in the last few years, Indian banks display improved health in terms of quantitative and qualitative parameters. Gross non-performing assets were just 2.7 per cent of total assets at the end of June 2024. During this period, banks in India maintained a capital ratio of 16.7 per cent with Tier I capital of 13.9 per cent, much above the minimum regulatory norms. Other buffers include the liquidity coverage ratio, which is well above 100 per cent, and the provision coverage ratio which is close to 80 per cent. Macro stress test reveals that no bank in India will fall below the regulatory minimum capital even under a severe stress scenario.

India is emerging as a world leader in leveraging digital technologies for transformative change. The trinity of JAM – Jan Dhan (basic no-frills accounts); Aadhaar (universal unique identification); and mobile phone connections – is expanding the ambit of formal finance, boosting tech start-ups and enabling the targeting of direct benefit transfers. India's Unified Payment Interface (UPI), an open-ended system that powers multiple bank accounts into a single mobile application of any participating bank, is propelling inter-bank peer-to-peer and person-to-merchant transactions seamlessly. Payment systems in India operate on a 24x7x365 basis. Functionalities like offline payments, payments through feature phones and conversational payments have been incorporated. The internationalisation of the UPI is progressing rapidly.

The Indian economy is now at a critical juncture. Massive changes are taking shape in various economic sectors and markets; and the country is geared for orbital shifts. The nation's journey towards becoming an advanced economy is drawing strength from a unique blend of factors: a young and dynamic population, a resilient and diverse economy, a robust democracy, a rich tradition of entrepreneurship and innovation, and a conducive and enabling policy environment.

The Indian Experience

The unique combination of Reserve Bank's responsibilities – monetary policy combined with macroprudential regulation and micro-prudential supervision – has enabled the Reserve Bank to focus on both financial and price stability, even during the recent years of multiple, overlapping and unprecedented shocks, coming one after the other.

Over the past ten years, the Indian financial system has seen periods of difficulty. The banking sector stress is well documented. Even the non-banking financial sector, which now plays a bigger role in the financial system, witnessed a significant upheaval before the pandemic. Following the collapse of ILFS in the second half of 2018, almost the entire 2019 necessitated taking measures to intensify the supervision of NBFCs; close monitoring of their liquidity and stability conditions; infusing system liquidity through innovative instruments like currency buy-sell swaps; restoring market confidence through appropriate communication and backing it up with actual action on several fronts.

When the COVID-19 pandemic scarred the global economy including India, the Reserve Bank's response was swift and decisive. Business continuity measures were put in place even before the nation-wide lock down was announced. The policy repo rate was reduced sizeably by 115 bps in a span of two months (March-May 2020). In addition, liquidity enhancing measures equivalent to 8.7 per cent of GDP were announced. These liquidity measures kept in mind the fundamental principle of prudence to avoid future vulnerabilities. Liquidity was provided only through the Reserve Bank's counterparties (banks); asset purchase programme (G-SAP) was for a limited period of six months; collateral standards were not diluted while offering lending facilities; and most of these liquidity injection measures were targeted and had pre-announced sunset clauses, which helped in their orderly unwinding. In parallel, macroprudential measures like moratorium on repayment of bank and NBFC loans for six months, followed by Resolution Frameworks for COVID-19 stressed assets were also announced. These resolution frameworks were offered for a limited period and were not open ended, but subject to achievement of certain financial and operational parameters.

During 2021, surplus liquidity was absorbed through variable rate reverse repo (VRRR) auctions, which lifted short-term rates from ultra-low levels, thereby obviating financial stability challenges. This was done by sensitising the market well in advance through effective communication. Further, recognising that the yield curve is a public good, the benefits of which accrue to all, the Reserve Bank undertook outright asset purchases and operation twist, which were generally liquidity neutral – to modulate long term G-sec yields. This, in turn, lowered rates on all instruments benchmarked to prices of the G-sec yield curve. The resultant congenial conditions allowed corporates to mobilise large resources and repay high-cost debt from banks. Such deleveraging by corporates reduced their balance sheet vulnerabilities and facilitated credit offtake later in 2022-23. The benign liquidity conditions also enabled the banks to mobilise additional capital and strengthen their balance sheets to withstand future stress, if any.

The asset purchase programme – G-sec Acquisition Programme (G-SAP) – provided an upfront commitment to a specific amount of open market purchase of government securities. This measure anchored interest rate expectations and facilitated monetary transmission.

In the period that followed the Ukraine war in 2022, what stood out in India was the coordinated monetary and fiscal policy response to tame the inflationary pressures. The MPC quickly changed gears by prioritising inflation over growth, while changing its stance from being accommodative to withdrawal of accommodation in April 2022. The MPC then went on to increase the policy repo rate by 250 bps cumulatively between May 2022 and February 2023, to keep inflation expectations anchored, break the core inflation persistence, and contain second round effects. The monetary policy actions of the Reserve Bank over the last one and half years consisting of prioritisation of inflation ahead of growth, narrowing the Liquidity Adjustment Facility (LAF) corridor, increasing the policy repo rate by 250 bps, draining out excess liquidity – together with fiscal prudence and supply side measures by the Government – have facilitated significant softening of headline and core inflation.

The period since the onset of the pandemic is an example of how the Reserve Bank could effectively address macro-stability consideration of maintaining price stability through conventional and unconventional monetary policy, within the flexibility provided by the flexible inflation targeting (FIT) framework, while also addressing

financial stability considerations simultaneously. The FIT framework which got embedded into the law in 2016, established the primacy of price stability among the objectives of monetary policy, but not unconditionally. It defined the objective as maintaining price stability, while keeping in mind the objective of growth. The FIT framework retained the essence of the earlier multiple indicator approach without any ambiguity about the hierarchy of objectives. FIT provides flexibility to support growth if the situation so demands. Financial stability which is a pre-condition for price stability and sustained growth, is thus implicitly embedded as part of the broader mandate of the Reserve Bank. It is this approach which has helped the Reserve Bank to effectively deal with the multiple challenges in the recent period and address issues of anchoring price stability, supporting growth and maintaining financial stability.

To protect the economy from the relentless shocks in the recent period, the Reserve Banks's endeavour has been to remain proactive, pragmatic and prudent in its policy response. It was conscious of the fact that an overdose of monetary medicine, while relieving the pain in the short run, could give rise to increased vulnerability and fragility over a longer period. Following the onset of the COVID-19 pandemic, it injected liquidity, but almost every measure of liquidity injection was for a limited period and was targeted. By doing so, it avoided the pitfall of a liquidity trap. Further, the lending standards were not diluted in terms of its counterparties (banks and AIFIs) and collateral requirements for on-lending to stressed entities or sectors.

On the regulatory side also, the Reserve Bank's actions were measured. It allowed lenders to offer moratorium on loan repayments and interest payments. It put in place loan resolution frameworks for the COVID-19 related stressed assets thereafter. These loan resolution frameworks were not open ended but subject to achievement of certain financial and operational parameters. The idea was to avoid the phenomenon of 'moral hazard' and other pitfalls typically associated with open ended restructuring of loans.

A healthy and efficient banking and financial system is the primary stabilising force against various shocks. Mindful of this, the Reserve Bank has carried out a series of reforms in its regulatory and supervisory architecture. It has come out with certain governance guidelines for banks and introduced a scale-based regulation for non-bank financial companies (NBFCs), based on the size and complexity of their

businesses. The process of supervision of banks, NBFCs and other financial entities has also been substantially strengthened with the focus being on early detection and pre-emptive correction, rather than reacting to the symptoms of weaknesses.

The Indian experience is unique in view of the incidence of repetitive shocks to food and fuel prices, which challenged the conduct of monetary policy. In India, price stability is a shared responsibility under which the government sets the target, and the central bank achieves it. This allows monetary-fiscal coordination without posing risks to financial stability, fiscal consolidation or growth – perhaps a template for countries vulnerable to inflationary pressures emanating from supply shocks.

The Indian experience shows that the best defence against global risks is to strengthen the macroeconomic fundamentals and build adequate buffers, supported by prudent macroeconomic policies. Resilient growth gave the Reserve Bank of India the space to focus on inflation so as to ensure its durable descent to the 4 per cent target. With critical reforms supporting the growth trajectory and a financial system much better placed in terms of its health parameters, the Indian economy was able to balance the objectives of price stability, financial stability and sustained growth.

Current Challenges

Today, the global economy is afflicted by multiple challenges – geopolitical conflicts; tendencies towards deglobalisation; geoeconomic fragmentation; climate change; debt sustainability; new and disruptive technologies; restrictions in trade, technology and capital flows. Coexistence of high levels of debt and elevated interest rates can feed a vicious cycle of financial instability through impairment of government and private-sector balance sheets. The banking sector turmoil in advanced economies in the face of monetary policy tightening brought to the fore the sharp trade-offs between price and financial stability.

The economies of the Global South are disproportionately affected by these challenges. They have to deal with spillovers from AEs and wild swings in financial asset prices, especially exchange rates. Stretched asset valuations in some jurisdictions could trigger contagion across financial markets, creating further instability. Maintaining overall stability which includes sustained growth, price stability

and financial stability is a daunting challenging for these economies amidst stressed external sector, limited fiscal space, elevated debt levels and financial market volatility.

Conclusion

Central banks have always been at the forefront of the policy response to defend their economies and financial systems from various shocks. During the unprecedented crisis caused by the COVID-19 pandemic, their response was swift and decisive to stabilise the financial system, lend support to firms and households to withstand the crisis impact and restore confidence and market functioning. Their response comprised a gamut of measures – rock bottom policy rates, large scale deployment of balance sheet policies and regulatory and supervisory dispensation – to tide over the crisis. Questions have been raised whether some of these policies produced exuberant financial asset prices that have come back to haunt central banks in their role as guardians of financial stability.

As the financial system has grown beyond a bank-intermediated system to a market-based system with the prevalence non-bank entities, central banks have expanded their toolkit for market interventions, at times blurring their role as lender of last resort or market-makers or dealers of last resort. New players, new technologies and new business models have transformed the financial sector landscape. Hidden leverage and liquidity mismatches in entities that remain in the shadow regions of the financial system can amplify shocks and propagate strains throughout the financial system. As our markets get integrated with global markets and non-resident participation increases, transmission channels from global developments would become stronger and speedier. In light of these developments, central banks must work towards more robust, realistic and nimble policy frameworks that use monetary, prudential, fiscal and structural policies synergistically to achieve better societal outcomes.

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Session V: Management of Foreign Exchange Reserves in India

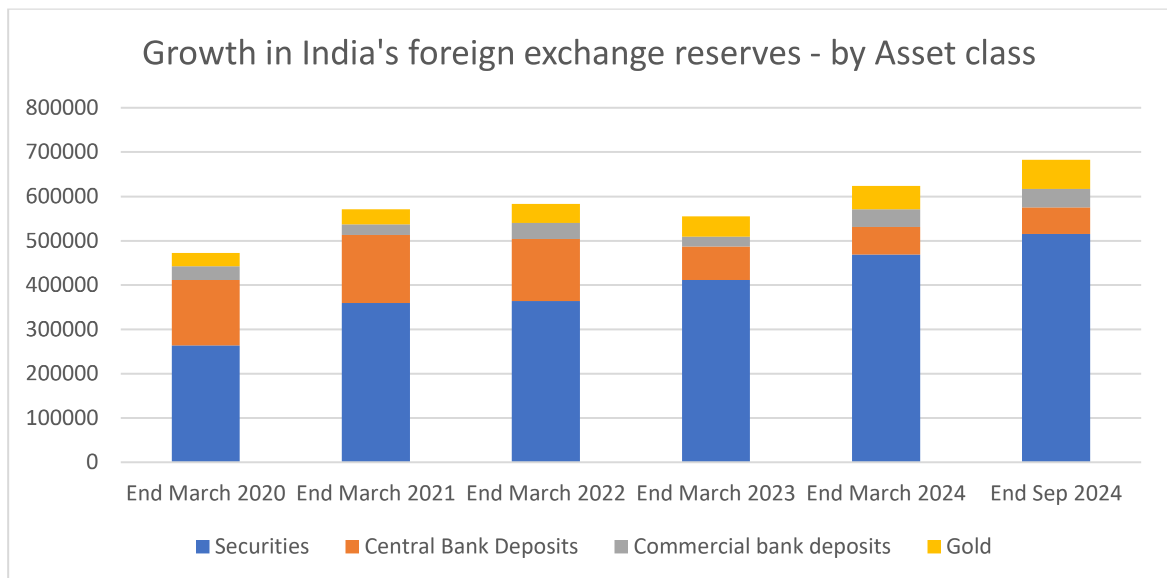
In India, the overarching legal framework for deployment of foreign exchange reserves in different foreign currency assets and gold within the broad parameters of currencies, instruments, issuers and counterparties is provided under the Reserve Bank of India Act, 1934. In the RBI, the work related to the reserves management is handled by the Department of External Investments and Operations (DEIO) under the broad parameters of safety, liquidity and returns. DEIO undertakes the following functions:

- Investment and management of foreign currency and gold assets;
- Handling external transactions on behalf of the Government of India (GoI) including transactions relating to the International Monetary Fund (IMF);
- Policy matters incidental to the Reserve Bank's membership of the Asian Clearing Union (ACU);
- Operational aspects of South Asian Association for Regional Cooperation (SAARC) currency swap arrangements and BRICS Contingent Reserve Arrangement (CRA);
- Bilateral swap arrangements as backstop facility during times of Balance of Payments distress, etc.

India's foreign exchange reserves (FER) consist of Foreign Currency Assets (FCA), Gold, Reserve Tranche Position (RTP) in the IMF and Special Drawing Rights (SDRs). FCA comprises investments in foreign securities, deposits with foreign central banks (including BIS) and foreign commercial banks. Foreign securities comprise debt instruments like bonds and bills issued by foreign governments as well as sovereign-guaranteed liabilities with residual maturity not exceeding ten years.

India's foreign exchange reserves have seen significant growth in the past 5 years

There has been significant accretion to India's foreign exchange reserves in the last 5 years. Total FER has risen from ~USD 470 Bn as at end March 2020 to peak above ~USD 700 Bn by September 2024.



The unprecedented increase in India's foreign exchange reserves has come in the face of significant market turbulence and a period of heightened geopolitical instability which essentially reflects the rising confidence of global investor community in India's growth potential, macro-parameters and our commitment to curbing exchange rate volatility. The last 5 years has also witnessed a significant enhancement in our capabilities in terms of accessing newer markets and products.

- Diversification into newer economies: RBI's reserve deployment has expanded from around 6 major G10 economies to around 15 economies including some of the smaller and less developed markets.
- New products: such as Interest Rate futures, Repo/ reverse repo transactions, Fx swaps and Securities Lending Program (SLP) have been added to the RBI's toolkit.
- Risk Management – the importance of prudent credit risk management has been the cornerstone of the reserve management policy. Our appetite for higher market risk has also been re-examined while meeting liquidity objectives.

- External Asset Managers: RBI has also engaged EAMs for venturing into newer markets and products. The Scheme is being administered keeping in view the broad objectives of knowledge sharing, investment in new markets and new financial products.

Steering the Asian Clearing Union (ACU)

The ACU is a payment arrangement for facilitating the ACU member countries to settle payments for their trade transactions through the participating central banks on a multilateral net basis. The member countries of the ACU are Bangladesh, Bhutan, India, Iran, Maldives, Myanmar, Nepal, Pakistan and Sri Lanka.

Promoting regional cooperation

Within the theme of rising global interest in regional partnerships, the use of local currencies has also gained prominence. The issue was first discussed by the ACU around the year 2022. Since then, an operational mechanism for trade settlement using INR/local currencies under the ACU mechanism has been formulated. Outside the ACU mechanism too, DEIO has been exploring suitable partner countries to enter into Local Currency Settlement arrangements and conduct joint studies with counterpart central banks on issues of mutual interest. Some of our major engagements in terms of use of local currencies in settlements and cooperation for interlinking payment and messaging system have been with UAE and Indonesia. RBI has also been active is providing Swap Lines to Central Bank counterparts based on bilateral agreements.

Risk Management

Credit Risk: The Reserve Bank is sensitive to the credit risk it faces on account of the investment of foreign exchange reserves in the international markets. The Reserve Bank's investments in bonds/treasury bills represent debt obligations of highly rated sovereigns, central banks and supranational entities. Further, deposits are placed with central banks, the BIS and commercial banks overseas. RBI has framed requisite guidelines for selection of issuers/ counterparties with a view to enhancing the safety and liquidity aspects of the reserves. The Reserve Bank continues to apply stringent criteria for selection of counterparties. Credit exposure vis-à-vis sanctioned limit in

respect of approved counterparties is monitored continuously. Developments regarding counterparties are constantly under watch. The basic objective of such an on-going exercise is to assess whether any counterparty's credit quality is under potential threat.

Market Risk: Market risk for a multi-currency portfolio represents the potential change in valuations that result from movements in financial market prices, viz. changes in interest rates, foreign exchange rates, equity prices and commodity prices. The major sources of market risk for central banks are currency risk, interest rate risk and movement in gold prices. These risks are managed using Value-at-Risk (VaR), Conditional Value-at-Risk (CVaR), scenario analysis, stress testing etc. Further, to manage interest rate risk, duration and permitted deviations from the duration are specified as per the prevailing market conditions.

Technological enhancements

DEIO uses SWIFT application for exchanging both financial and non-financial standard SWIFT messages with other correspondents / counterparties across the globe. In this context, we have taken the necessary and timely steps in order to ensure defense against cyberattacks and protect the integrity of the wider financial network by conducting SWIFT Customer Security Program (CSP) and migrating towards the latest available versions of SWIFT.

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Session VI: Developments in the Regulatory Landscape in India (2019-2024)

Department of Regulation of the Reserve Bank of India has been actively guarding the financial landscape populated by various regulated entities (REs) such as Commercial banks, Cooperative Banks , Non-Bank Financial Companies, Asset Reconstruction Companies (ARCs), All India Financial Institutions (AIFIs) and Credit Information Companies (CICs) . In addition to ensuring systemic stability and a healthy and stable financial ecosystem with responsible conduct, the department also plays an instrumental role in guiding the orderly growth and innovation of financial services and products being offered by the REs. The Department functions under two Divisions *viz*. (i) Prudential Regulation Division and (ii) Conduct and Operations Division, emulating a twin peak model of regulatory architecture.

Major regulatory guidelines/policies are issued through a public consultative process. Relevant Discussion Papers and draft circulars/guidelines are invariably placed on the website and feedback received is independently analysed before issuance of final circulars/guidelines. Over the last three years (2021-22 to 2023-24), a total of 32 public consultations were undertaken with the stakeholders through draft circulars, discussion papers, reports and stakeholder engagements for new/major regulatory policies. This chapter gives a brief overview on the major regulatory measures and initiatives across functions undertaken during the last five years to offer a glimpse into the spectrum of work performed by the department.

Resolution of stressed assets

Prudential Framework for Resolution of Stressed Assets

The Prudential Framework for Resolution of Stress Assets was issued in June 2019 to provide for early recognition, reporting and time bound resolution of stressed assets. The framework provides a principle-based resolution framework for addressing borrower defaults under a normal scenario and intends to improve broader credit discipline among the banks and help them identify and address the incipient stress in the loan accounts even before they become NPAs. It focuses on fundamental principles like early recognition and reporting of default in respect of large borrowers; complete discretion to the lenders regarding design and implementation of Resolution

Plan; withdrawal of asset classification dispensation on restructuring; alignment of the definition of 'financial difficulty' with Basel guidelines among others.

Framework for Compromise Settlements and Technical Write-offs

With a view to providing further impetus to resolution of stressed assets in the system, the Framework on Compromise Settlements and Technical Write-offs was issued in June 2023. The framework is intended to rationalize the regulatory guidance to Scheduled Commercial Banks (SCBs) on compromise settlements, consolidating various instructions issued over the years. It enables other REs, including urban cooperative banks (UCBs), to undertake compromise settlements as part of the normal resolution efforts. It defines technical write-off and provides a broad guidance on the process to be followed by REs.

COVID-19 package

In response to onset of COVID-19 pandemic, RBI instituted several measures to mitigate the burden of debt servicing by borrowers, ensure the continuity of viable businesses, maintain adequate liquidity in the system, facilitate and incentivise bank credit flows, ease financial stress and enable the normal functioning of financial markets. Some of the measures are enlisted below briefly for reference:

COVID-19 Regulatory Package

This package comprised of several measures targeted at easing the debt servicing burden. Rescheduling of payments and grant of moratorium were offered for term loans and working capital facilities. Working capital financing was further eased out. Some relaxations were granted in asset classification norms. Similarly, the resolution timelines prescribed under prudential framework was also reviewed in wake of hardships on account of the pandemic.

Support to MSMEs

Banks were permitted to reckon the funds infused by the promoters in their MSME units through loans availed under the Credit Guarantee Scheme for Subordinate Debt for stressed MSMEs as equity/quasi equity from the promoters for debt-equity computation. In addition, existing loans to MSMEs classified as 'standard' were allowed to be restructured without a downgrade in the asset classification, subject to some conditions.

Resolution Framework for COVID-19-related Stress

With the intent to facilitate revival of real sector activities and mitigate the impact on the ultimate borrowers, a window was provided under the Prudential Framework to enable the lenders to implement a resolution plan in respect of eligible corporate exposures without change in ownership, and personal loans, while classifying such exposures as Standard, subject to specified conditions. REs were also mandated to consider certain financial parameters/ratios while finalizing the resolution plans of eligible borrowers.

Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR) and Capital Conservation Buffer (CCB)

The LCR requirement was brought down from 100 per cent to 80 per cent in April 2020 to ease the liquidity position at the level of individual institutions. The implementation of NSFR guidelines, which were to come into effect from April 1, 2020 onwards was deferred by six months to October 1, 2020. The implementation of the last tranche of 0.625 per cent of CCB)was deferred from March 31, 2020 to September 30, 2020.

Resolution Framework 2.0 for individuals, small businesses, and MSMEs

The resurgence of COVID-19 pandemic and the consequent containment measures to check the spread of the pandemic impacted the recovery process and created new uncertainties. With the objective of alleviating the potential stress to individual borrowers and small businesses, RBI announced revised resolution framework for vulnerable segments like individuals and small businesses. The relief granted to MSMEs under earlier framework were also extended during this phase with some conditions.

Large exposure framework

In order to capture exposures and concentration risk more accurately and to align the instructions with international norms, the large exposures framework (LEF) was revised on June 3, 2019. The guidelines introduced economic interdependence criteria for identifying group of connected counterparties, mandated look-through approach and excluded entities connected with the sovereign from definition of group of connected parties, if such entities are not connected otherwise. It was further decided in 2019 to harmonise the exposure limit of banks to a single NBFC with general single

counterparty exposure limit under the LEF by increasing it from 15 per cent to 20 per cent of bank's available eligible capital base.

External benchmarking framework

Based on various internal and external consultations for bringing transparency in loan pricing, and effective transmission of policy rate, it was decided that (i) all new floating rate personal or retail loans and floating rate loans to Micro and Small Enterprises with effect from October 1, 2019, and (ii) all new floating rate loans to Medium Enterprises with effect from April 1, 2020, extended by banks would be linked to external benchmarks, with the freedom to choose from any of several indicated benchmarks.

Governance in Commercial Banks

With a view to align the current regulatory framework with global best practices in governance while being mindful of the context of domestic financial system, a Discussion Paper was released by RBI on June 11, 2020. Later, a circular on a few operative aspects with regard to the Chair and meetings of the board, composition of certain committees of the board, age, tenure and remuneration of directors and appointment of the whole-time directors (WTDs) was issued on April 26, 2021. Besides, to facilitate succession planning and establish an effective senior management team with good governance principles, instructions were issued on October 25, 2023 to private sector banks and wholly owned subsidiaries of foreign banks to ensure presence of at least two WTDs including the MD&CEO, on their Boards.

Digital lending

A Working Group (WG) was constituted on January 13, 2021 to study all aspects of digital lending activities in the regulated financial sector as well as by unregulated players so that an appropriate regulatory approach can be put in place. The recommendations of the Report primarily focused on the digital lending ecosystem of RBI's REs and the LSPs engaged by them to extend various permissible credit facilitation services. Taking into account the recommendations given by the WG and the feedback received, detailed guidelines were issued in September 2022. It seeks to address concerns relating to engagement of third parties, mis-selling, breach of data privacy, unfair business conduct, charging of exorbitant interest rates and unethical

recovery practices. Deferred Lending Guarantees (DLG) which was an important component on the Digital lending ecosystem was examined in consultation with the stakeholders and guidelines were issued in June 2023 regarding regulatory guardrails like defining DLG to cover any type of default loss arrangements, capping of DLG to 5 per cent of portfolio which is required to be provided only in the form of cash, fixed deposit and bank guarantees.

Scale-based regulation for NBFCs

To harmonise the regulatory guidelines between banks and larger NBFCs, and to ensure that regulation of NBFCs follow a scale-based approach, a discussion paper was issued for public comments in January 2021. Based on the inputs received from stakeholders, the regulatory framework for scale-based regulation (SBR) of NBFCs was issued in October 2021. It provides for a layered structuring of NBFCs based upon their size, activity, and perceived riskiness. Later, a Master Direction on Scale Based Regulation was issued in October 2023, consolidating instructions contained in other relevant master directions and circulars.

Review of Asset Reconstruction Companies

An External Committee under the Chairmanship of Shri Sudarshan Sen, Former Executive Director, RBI was constituted in April 2021 to undertake a comprehensive review of the working of ARCs and recommend suitable measures for their effectiveness. Based on the recommendations of the committee, and subsequent feedback received from the stakeholders, the regulatory framework for ARCs was amended in October 2022 to strengthen governance norms, enhance transparency and disclosures, strengthen prudential requirements and increase the efficacy of ARCs in resolution of stressed assets. ARCs had also been permitted to act as resolution applicant under the Insolvency and Bankruptcy Code (IBC), 2016, subject to certain conditions. Subsequently, Master Direction for ARCs was issued in April 2024 which consolidates all the regulatory guidelines applicable to ARCs and provides a single-point reference for the stakeholders.

Regulatory framework for Micro-finance

For protecting the microfinance borrowers from over-indebtedness, as well as enabling competitive forces to bring down the interest rates, the department issued a

consultative document in June 2021. Based on review of comments/feedback, a comprehensive regulatory framework applicable to REs was issued in March 2022. While the overall impact of the revised regulatory framework had been favorable, some of the concerns still remained in vogue. To address such concerns, certain measures have been initiated, *e.g.* prescribing suitable supervisory returns related to pricing of microfinance loans, detailed scrutiny of the pricing methodology for REs observed following usurious practices and advising Board of the REs to review and undertake necessary amendments in the interest rate policies/ practices, if required.

Comprehensive Disclosure Framework for Banks

Harmonisation of disclosures in notes to accounts to financial statements across all categories of banks was undertaken and a comprehensive Master Direction applicable to all commercial banks and cooperative banks was issued in August 2021.

Dividend Declaration Norms

In order to infuse greater transparency and uniformity in practice, guidelines on distribution of dividends by NBFCs were issued in June 2021 stipulating the eligibility criteria for dividend payment and the quantum of dividend payable. A review of the dividend declaration guidelines for commercial banks was also undertaken and the draft guidelines outlining the prudential requirements for declaration of dividend by commercial banks was issued in January 2024.

Sustainable Finance

Setting up of Sustainable Finance Group

During the past few years, leading Central Banks and Supervisors across the globe have been deliberating on climate risk and sustainable finance. In order to learn from and **contribute** to the global efforts towards green finance, the RBI joined the Network for Greening of Financial System (NGFS) in 2021. A new unit named ‘Sustainable Finance Group’ (SFG) was set up within department in May 2021. The SFG is mandated to spearhead RBI’s efforts and regulatory initiatives in the areas of sustainable finance and climate risk.

Discussion paper on climate risk and sustainable finance

A discussion paper was placed on our website in July, 2022 to assess the progress made by the REs in managing climate risk and to sensitise them. Based on analysis of the feedback received on the paper, it was announced that three guidelines for REs would be issued in a phased manner. Accordingly, the first guideline on framework for acceptance of Green Deposits was issued in April, 2023 to promote sustainable financing shall further encourage transition financing. The second guideline in form of draft Disclosure Framework for Climate-related Financial Risks, 2024 was released on RBI's website on February 28, 2024. Lastly, the Guidance Note on Climate Scenario Analysis and Stress Testing, 2024 is being formulated to delineate the approaches that can be adopted by REs in conducting climate scenario analysis and stress testing considering the internationally adopted norms.

Revised Regulatory Framework for Urban Cooperative Banks (UCBs)

RBI formed an expert committee on UCBs, headed by former Deputy Governor Shri N.S. Vishwanathan, to review the regulatory framework applicable for cooperatives. Based on the recommendation of the committee, RBI adopted a four-tiered regulatory framework in July 2022 with differentiated regulatory prescriptions aimed at strengthening the financial soundness of the existing UCBs. The differentiated approach was mainly adopted for key parameters such as Minimum Net worth, Capital to Risk-weighted Assets Ratio, branch expansion and exposure limits. In addition to the above reform, a CGM has also been designated as the nodal point of contact to interface with the UCBs and other concerned entities on sector level matters to bring about closer coordination and focused interaction for issues concerning the UCBs.

Establishment of Digital Banking Units (DBUs)

RBI introduced framework for DBUs in 2022 to accelerate digital financial inclusion as well as availability of digital banking infrastructure. The DBUs shall encourage the customers to adopt digital modes/channels for utilising financial services. Based on some surveys and market feed-back, the banks have been advised to activate DBUs at a higher level, prepare a roadmap, conduct awareness campaigns, and collaborate with the Indian Banks' Association for a national campaign.

Convergence of capital-charge regulations with Basel III

The Master Direction on Minimum Capital Requirements for Operational Risk was issued with an advice that the effective date of implementation of these Directions shall be notified separately. The draft guidelines on market risk have been issued on February 17, 2023. The trading book definition portion of the draft guidelines have been finalized in alignment with the Market Risk Capital Requirements-Simplified Standardised Approach and issued in February, 2024 on Capital Adequacy Guidelines -Review of Trading Book. The remaining portion of the final guidelines for market risk and the draft guidelines on capital charge for credit risk are in advanced stages of finalization.

Prudential Norms on Classification and Valuation of Investment Portfolio

In view of the significant developments in the global standards on classification, measurement and valuation of investments, the linkages with the capital adequacy framework as well as progress in the domestic financial markets, a comprehensive review of the prudential guidelines on investment portfolio was undertaken. A revised Master Direction on classification, valuation and operation of investment portfolio of commercial banks was issued in September, 2023 which came into effect from April 1, 2024. The revised Directions *inter alia* included principle-based classification of investment portfolio, tightening of regulations around transfers to/from held to maturity (HTM) category and sales out of HTM, inclusion of non-SLR securities in HTM subject to fulfilment of certain conditions, removal of ceilings on HTM, and symmetric treatment of fair value gains and losses. Accordingly, the capital adequacy guideline was amended in February, 2024 in alignment with the revised prudential norms. The market risk capital requirements were also recalibrated by introducing intermediate scalars to smoothen the transition to the proposed Simplified Standardized Approach of Basel III.

Interest Rate Risk in the Banking Book (IRRBB)

The final guidelines on Interest Rate Risk in the Banking Book (IRRBB) was issued in February 2023. The enhanced guidelines require banks to measure, monitor and disclose their exposure to IRRBB based on a set of prescribed interest rate shock scenarios and assumptions on the underlying balance sheet that may impact the

capital base and future earnings of banks. Banks were advised to be in preparedness for implementation and submit the stipulated disclosures to the Reserve Bank ahead of implementation.

SRO for NBFCs

An Omnibus Framework for recognition of Self-Regulatory Organizations for REs was issued on March 21, 2024 to provide a consultative platform for policy making and enhance the effectiveness of regulations by drawing upon the expertise of practitioner members. The framework prescribes the general objectives, functions and responsibilities, eligibility criteria, governance standards, application process and other basic conditions for grant of recognition, which will be common for all SROs proposed to be recognized by RBI.

Enhancing operational resilience

The recent technological outages highlighted the increasing importance of managing risks due to fast growing dependence on third-party service providers by REs. Recognizing such increasing dependencies and to align RBI's regulatory guidance with the BCBS Principles, a guidance note was issued on April 30, 2024, advising REs to strengthen their operational risk management framework and enhance their operational resilience. The guidance has been built on three pillars which are Prepare and Protect, Build Resilience, and Learn & Adapt.

Development of Credit Risk Market

Secondary Loan Market Association

Based on the recommendations of the Manoharan committee formed to explore ways for development of secondary loan market in India, RBI announced on December 5, 2019 that it would facilitate the setting up of the self-regulatory body (SRB). Subsequently, Secondary Loan Market Association (SLMA) was formed on August 26, 2020. The department coordinates with the SLMA regularly to ensure that it meets the specified objectives.

Securitisation Frameworks

The directions on 'Securitisation of Standard Assets' issued in September 2021 have rationalised the regulatory framework and harmonised them with Basel standards. Besides, the requirements on minimum holding period and minimum retention

requirement have been simplified, and a revised capital requirement has been introduced with concessional regime for simple, transparent, and comparable (STC) securitisations.

Furthermore, a discussion paper (DP) on securitisation of stressed assets framework (SSAF) was released in January 2023 to develop a market-based mechanism for securitisation of stressed assets. The final guidelines incorporating views of market participants will be published in due course.

Guidelines on Transfer of Loan Exposures

A robust secondary market in loans is an important mechanism for management of credit exposures by REs. The Master Directions on Transfer of Loan Exposures issued in September 2021 lays down a comprehensive regulatory framework for transfer of loan exposures by banks, NBFCs and AIFIs. Further, an enabling framework has been put in place for transfer of stressed loan exposures to a wider set of market participants, subject to specified conditions.

Expected Credit Loss Framework

A Discussion Paper on introduction of Expected Credit Loss Framework (ECLF) for Provisioning by banks was released on January 16, 2023. Subsequently, a working group consisting of domain experts from academia and industry as well as representatives from select banks was also constituted to examine various aspects of ECL. The group submitted its final report to RBI on February 8, 2024. Based on the report of the Working Group and the feedback on the Discussion Paper, draft guidelines on ECL is proposed to be issued.

Development of housing finance securitisation

Based on the recommendations of the Harsh Vardhan Committee and an internal working group, licensing conditions and regulatory framework were finalized to set-up a market intermediary by NHB for promoting housing finance securitisation. The intermediary will primarily play the role of standard setter and market maker in this market-space.

Management of Credit Risk models

Given the rising sophistication in financial institutions, most of the processes are using technological tools and models for key decisions. One such area is management of

credit risk, in which banks are increasingly using complex models to reach to some conclusion. To ensure that such models conform to some broad principle-based guidance, a draft guideline was issued. The proposed guidelines provide broad principles on model development and deployment to be followed by REs for the credit models, and validation exercise to be undertaken prior to deployment and during the lifetime of the model.

Data Quality Index for Commercial and Microfinance Segments by Credit Information Companies (CICs)

Data Quality Index (DQI) helps in assessing the quality of data submissions by Credit Institutions (CIs) to CICs and improving the same over a period of time. DQI has now been introduced for the commercial and microfinance segments in addition to consumer segment. Further, CIs have been advised to undertake half yearly review of the DQI for all segments to improve the quality of data being submitted to CICs.

Customer Centric & Conduct Related Measures

Access to banking services

The beneficiaries of defined benefit transfer (DBT) schemes were facing difficulties while operating the Basic Savings Bank Deposit Accounts (BSBDA) due to restriction of maximum four withdrawals per month. Any additional facility provided by banks in BSBD Account made the account non-BSBDA. Accordingly, in the interest of better customer service, the facilities associated with BSBDA were reviewed and revised guidelines were issued to banks on June 10, 2019. The guidelines mandate the banks to offer certain basic minimum facilities free of charge without any minimum balance requirement in such accounts. It was also clarified that additional value-added services can be provided by banks without classifying the accounts as non-BSBD account.

Video based KYC

With an intention to augment the efforts of financial inclusion, customer convenience, better utilization of resources, RBI permitted Video-based Customer Identification Process (V-CIP) and digital KYC for customer on-boarding vide circular dated January 9, 2020. Further, the process of periodic updation of KYC for individual customers and customers other than individuals has also been simplified.

Doorstep Banking Services (DBS) for elderly and differently abled people

In order to make DBS for senior citizens and differently abled persons more effective, banks were advised to offer these services on pan India basis and to develop a Board approved framework for determining the nature of branches where these services will be provided mandatorily and those where it will be provided on a best effort basis. The banks were also advised to update the list of branches offering such services on its website regularly and give adequate publicity on the availability of such services.

UDGAM

A centralised web portal named UDGAM (*Unclaimed Deposits Gateway to Access InforMation*) was launched on August 17, 2023 to enable search of unclaimed deposits transferred to Depositor Education and Awareness (DEA) Fund. UDGAM has aided the public to identify their unclaimed deposits/accounts and enabled them to either claim the deposit amount or make their deposit accounts operative at their respective banks. Further, to address queries that may arise from public regarding the operation of UDGAM portal and DEA fund, FAQs were published on the Bank's website.

Fair Lending Practice

In the wake of supervisory observations regarding divergent practices amongst the REs with regard to levy of penal interest/charges, revised instructions were issued in August 2023 mandating REs to levy reasonable, non-discriminatory penal charges for non-compliance of loan terms. These instructions, *inter alia*, state that penalty for non-compliance of material terms and conditions of the contract shall be treated as penal charges and no interest will be computed on such charges.

Reset of floating rate on EMI based personal loans

These regulations have been issued in August 2023, with the objective of ensuring that the REs have adequate headroom at the time of origination of loans for absorbing the impact of possible increase in external benchmark rate during the tenor of the loan, option of switching to fixed loans at the time of reset of interest rates as also for foreclosure of loans as per Board approved policy, transparent disclosure of various charges incidental to the exercise of these options, and proper communication of key information to the borrowers.

Responsible lending conduct

Instructions were issued in September 2023 mandating REs to release all the original movable/ immovable property documents including removal of charges registered with any registry within 30 days after full repayment/ settlement of the loan account.

Key Fact Statement

Furthermore, separate instructions were issued in April 2024, mandating REs to provide their borrowers a key fact statement containing the information regarding a loan agreement, including all-in-cost of the loan, in a simple and easy to understand format for all retail and MSME term loan products.

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Session VII: Major developments in Supervision function by the Reserve Bank of India during the last five years

Effective supervision plays a vital part in ensuring that the financial institutions adhere to the relevant regulatory norms and conduct their activities prudently in the interest of the financial ecosystem, including the customers. Accordingly, the Department of Supervision has set the following vision, ***"To foster a sound and resilient financial system by ensuring a proactive, incisive, forward-looking and an effective supervisory system on an ongoing basis".***

Organisation of Supervisory Function in RBI

The Reserve Bank of India (RBI) supervises more than 10,000 Supervised Entities (SEs). The supervisory remit of RBI extends across the Scheduled Commercial Banks (SCBs), Local Area Banks (LABs), Payments Banks (PBs), Small Finance Banks (SFBs), Urban Co-operative Banks (UCBs), All India Financial Institutions, Non-Banking Financial Companies (NBFCs) and Credit Information Companies under various provisions of the Banking Regulation Act, 1949 and RBI Act, 1934.

The Board for Financial Supervision (BFS), constituted in 1994 as a Committee of the Central Board of Directors of the RBI under the RBI (Board for Financial Supervision) Regulations, 1994, oversees the supervisory mandate of the RBI. The Department of Supervision (DoS) assists and provides secretarial support to BFS. The BFS is chaired by the Governor and includes the Deputy Governors, and four Directors nominated by the Governor from the Central Board of RBI.

The fundamental objective of supervision is to ensure depositors protection, safety and soundness of individual SEs and the financial system. Compliance to the regulatory norms prescribed by the RBI and customer-service related aspects are also evaluated during the supervisory process.

Over the last few years, supervision has become more calibrated yet deeper in analysis of the risk profile of SEs. A stronger, more robust and evolving supervisory framework has served the system well in withstanding the adverse impacts of the

COVID pandemic, global financial market turmoil and the outbreak of geo-political hostilities.

Recent Supervisory Initiatives

During the past five years, several major initiatives have been taken to make the supervisory function more effective and future ready. The initiatives encompass:

I. Policy Initiatives
II. Enhancements in Onsite Supervisory Processes
III. Strengthening of Internal Processes
IV. Strengthening of Off-site Supervision
V. Increasing the effectiveness of Supervisory Communication
VI. Effective Engagement with SEs
VII. Supervisory Capacity Building

I. *Policy Initiatives*

The Supervisory framework has been reworked to have more focus on addressing the root causes of risk build-up in the SEs, especially in areas such as Governance and Assurance Functions, and appropriate policy guidelines have been issued for implementation by the SEs.

Further, in order to strengthen the supervisory processes as well as to keep the supervisory mechanism updated, a series of Policy Documents have been framed:

a) Minimum Supervisory Expectations in respect of Business Strategy & Business Model, Risk Governance, Compliance and Internal Audit;
b) Policy on Graded Supervisory Intervention Escalation Matrix (EM) for Supervisory Actions on Supervised Entities;
c) Review of Prompt Corrective Action (PCA) Framework for SCBs and introduction of PCA Framework for UCBs and NBFCs;
d) Review of the supervisory systems for UCBs in the form of a Supervisory Strategy Matrix for dealing with UCBs under All Inclusive Directions (AID);
e) Review and formulation of various Standard Operating Procedures (SOPs) for streamlining internal policies and processes.

II. Enhancements in Onsite Supervisory Processes

Reserve Bank's on-site supervisory examinations have been strengthened significantly in recent years through a unified and harmonised supervisory approach for Scheduled Commercial Banks (SCBs), NBFCs and Urban Co-operative Banks (UCBs). The scope, scale and intensity of the onsite supervisory mechanism has been enhanced through a series of new initiatives, which are given below:

a) A *Calibrated Supervisory Approach*, which incorporates the elements of riskiness (including time gap between inspections) along with materiality, has been adopted for selection of SEs for onsite examination. The frequency and intensity of on-site supervisory engagement is now based on the size as well as riskiness of the institutions. This ensures that SEs with riskier profile are subjected to more rigorous supervisory oversight while also considering the materiality from systemic perspective.
b) *Continuous and group-wide supervision* approach has been implemented for the SEs. For SCBs, a framework for integration of off-site inputs and on-site assessments has been devised through computation of offsite ratings before commencement of inspection. The offsite rating exercise helps to identify the areas exhibiting higher risk.
c) *Senior Supervisory Manager (SSM)* concept, where a supervisor is responsible for continuous monitoring of assigned SE(s), has been extended to NBFCs and UCBs, in addition to SCBs.
d) *Focus areas of supervision* / key themes are identified based on offsite inputs as well as risks/trends identified through onsite assessments. These are communicated to the SSMs at the beginning of the supervisory cycle to set high level direction and supervisory priorities across SEs.
e) *Compliance testing framework* is being gradually extended to UCBs and NBFCs.
f) *Capital Assessment Exercise* has been introduced and is undertaken before the commencement of onsite risk assessment.
g) Concept of *Process Audit* is in place for SCBs wherein SSMs undertake the assessment of key processes having significant/critical importance to the bank, to identify deficiencies.

h) A KYC/AML Risk Assessment (SAKAR) Framework has been developed based on an analytical model, which generates a risk score/profile of SCBs. Based on risk profile generated, targeted inspections are carried out for evaluating compliance with KYC/AML norms.

i) A *focused assessment of Conduct of Business (CoB)* has been introduced for all segments (SCBs, UCBs and NBFCs) in a phased manner. The COB assessment covers three dimensions - Customer Conduct, Market Conduct and Governance Conduct.

j) *Assessment of Business Model of SEs has been introduced* since 2020 and made part of risk assessment reports. The main objective is to evaluate sustainability of the business model/strategy and highlight supervisory concerns, if any, while also evaluating whether the business being carried out by the SE is in sync with its stated business strategy and risk appetite framework.

k) Regulated Entities (REs) have been extensively leveraging Information Technology (IT) and IT enabled Services (ITeS) to support their business models as well as products and services offered to their customers. Keeping in mind the proliferation of digital banking services and the need to adopt a focussed approach by banks to address the concomitant risks, *Master Direction on Digital Payment Security Controls* was issued in February 2021. The Master Direction requires REs to set up robust governance structure and implement common minimum standards of security controls for digital payment products and services. Similarly, a separate Master Direction has been issued to ensure effective management of risks attendant with outsourcing of Information Technology Services and non-IT Services, separately.

l) In the light of increasing cyber risks of UCBs, *conduct of onsite IT examination* has been extended to Level IV and Level III UCBs[11] and their compliance is being closely monitored.

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[11] UCBs are classified into four levels for proportionate regulation and supervision of Cyber and IT risk based on their digital depth. Level IV UCBs are the ones with highest digital depth.

III. Strengthening Internal Processes

The internal systems and procedures guiding onsite supervision have been streamlined with a series of measures, as under:

a) A system of periodic high level monitoring has been instituted to discuss about the potentially vulnerable SEs. Such entities are identified based on data analytics and heatmaps encompassing a range of indicators.
b) A SupTech tool, DAKSH - Reserve Bank's Advanced Supervisory Monitoring System, has been implemented to enhance overall efficiency of the supervisory processes. DAKSH is a web-based end-to-end workflow application which enables supervisors to have a secure and seamless communication with SEs, do inspection planning and execution, cyber incident reporting and analysis, provision of various MIS reports, attend to complaint management, etc.
c) An Inter Regulatory Forum (IRF) with participation from the Capital Market Regulator, the Insurance Regulator and the Pension Regulator meets regularly to monitor supervisory concerns of Financial Conglomerates (FCs).

IV. Strengthening Off-site Monitoring

Off-site supervision has become continuous, more intense and data driven in order to bring about specific action points and deliverables:

a) *Data and analytics* are deployed to identify various vulnerabilities and outliers amongst the SEs, including borrower level analysis, tracking of stock and bond yields of SEs, data on frauds, etc.
b) An *Early Warning Framework,* based on identified statistically significant variables, is deployed to provide early warning signs for SEs.
c) *Thematic Studies / Assessments* are regularly carried out by off-site supervisory teams for cross sectional and time series analysis.
d) *Stress tests are* being carried out to assess the probable increase in impairment and capital shortfall under specific stress scenarios and forecast the potential vulnerabilities of SEs.
e) *Micro-Data Analytics (MDA) Unit has been formed* for carrying out micro prudential analysis to identify the possible risk areas to banks which may have adverse effect on safety and soundness of the SEs.

f) Use cases are being developed to leverage *Artificial Intelligence (AI)-Machine Learning (ML)*-based assessments using sophisticated SupTech tools.
g) To capture emerging IT/ cyber security risks and outliers SEs, a set of *Key Risk Indicators (KRI)* is collected from commercial banks on a quarterly basis and analysed. Various other tools viz., *Phishing Simulation Exercise, Cyber Reconnaissance and Cyber Drills* has been implemented. A pilot project on *Sectoral Security Operations Centre* has been initiated to create a platform for collecting relevant security events/ raw logs from various SEs and cyber threat intelligence feed.

V. Increasing Effectiveness of Supervisory Communication

The efficacy of supervisory communication is continually improved to make it more focused and effective:

a) The format of Supervisory Letters to SEs have been revised to convey clearly RBI's supervisory concerns and expectations and to bring uniformity and consistency in communications.
b) Compendium of Instructions are prepared for SCBs, NBFCs and UCBs and are updated regularly.

VI. Effective Engagements with SEs

Conference with the Directors on Boards of SEs

The Department of Supervision has been periodically convening Conferences for the Directors on the Boards of SEs for a face to face engagement with Top Management of RBI. The objective is to have an interactive platform to convey the expectations of RBI to the SEs. These Conferences typically focus on strengthening the governance and assurance functions (risk management, compliance and internal audit) of SEs to help them identify and mitigate risks at an early stage, apart from giving them a platform to share their feedback and suggestions with RBI.

Meeting with the MD&CEOs of SEs

On a periodic basis, the Governor and Deputy Governor in charge of regulation and supervision conduct meetings with the MD & CEOs of banks and other SEs. These interactions are part of the continuous engagement with SEs to discuss various areas of concerns for remedial action by the SEs.

Other Engagements

In addition to the engagements with Directors and CEOs, SSMs regularly engage with the Senior Management of the SEs individually. SSMs also have structured meetings with the Statutory Central Auditors of SEs at periodic intervals for exchange of information, sharing of concerns and broader discussions.

VII. Supervisory Capacity Building

To ensure that the supervisors can meet the required degree of supervisory rigour to meet the challenges posed by the evolving complexity in the financial systems, the following specific actions have been initiated:

a) Manpower assessment on Zero-Based Budgeting basis in terms of numbers and skill sets has been undertaken through an external Expert.
b) A dedicated College of Supervisors (CoS) has been instituted to conduct training/ skill upgradation programmes for supervisors.
c) Periodic Training Need Assessments (TNA) are carried out to identify the specific training needs of supervisors and trainings are being imparted accordingly.
d) Internally, the communication channels between the Top Management and the on-ground supervisors has been strengthened, the initiatives include conduct of annual conferences.
e) With a view to improving the work processes and work atmosphere, several Employee Engagement initiatives have been undertaken, such as knowledge-sharing seminars, workshops on stress and anger management, quizzes, etc.

Strategy for RBI @ 100

As the Reserve Bank approaches its centenary year, the Department of Supervision is gearing up to ensure that its supervisory framework remains future-ready to cater to the needs of India's fast-growing financial system. The Department has set itself following aspirational goals towards making Reserve Bank's supervision a global model:

- Risk Focused Supervision:
    - Supervisory culture for effective risk discovery; and
    - Ensuring an appropriate compliance culture at Supervised Entities.

• Building ‘Through the Cycle’ Risk Assessment Framework by continuous Horizon Scanning and Holistic Risk Assessment;
• Customer-centric supervision: Improving the conduct of SEs to protect and promote customers’ interests through appropriate supervisory focus;
• Effective Corrective Actions: Focus on prudent supervisory judgement and assessing supervisory effectiveness; and
• Creating a Data Analytics Universe.

Conclusion

The Reserve Bank has initiated a series of steps to enhance the safety and soundness of the financial system by adopting a holistic approach towards addressing the growing complexities and inter-connectedness, and also to deal effectively with the potential systemic risks. The last five years have seen a paradigm shift. The new supervisory approach, *inter alia,* critically assesses the quality of governance and risk management standards, compliance culture and business model considerations which are often seen as root causes of problems. Further, targeted thematic assessments aimed at deep dive examination of specific issues are also carried out. The closer and frequent interactions with the senior management and key managerial personnel of institutions help in conveying the criticality and materiality of supervisory assessment and desired remedial measures to be taken by them.

Within the Reserve Bank, the Top Management is also closely engaged and focussed on continuous monitoring of the developments in all the major financial entities. The objective of recent initiatives has been to make supervision more *forward-looking*, *proactive* and *preventive* and that the potential risks and vulnerabilities get identified and mitigated early to avoid spill-over of risks across the financial system.

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