

# Macro-Financial Perspectives on the Indian Economy<sup>1</sup>

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## 1.1. Introduction

World economic outlook turned a shade better in the later part of 2022 than what was initially expected a year earlier by IMF. Indian economy remained as the bright spot in the global economy with the highest growth rate among the larger countries in the world in 2022 and is expected to keep this position for some years to come. Inflation in India went up along with global inflation from early 2022, but was kept at moderate levels through timely action by RBI and Monetary Policy Committee. India embarked on a rate hike cycle from May 2022. On the fiscal side, tax collection in general has shown buoyancy often exceeding the budget estimates. Indian banking has largely recovered from the asset quality problems and has shown turn around in many performance parameters. Indian financial markets in general have been functioning seamlessly throughout the pandemic and during the recovery period. On the whole, Indian economy is expected to continue its momentum of growth going forward, provided the global environment stays stable.

The main objective of this chapter is to provide a synoptic assessment of the various developments of macro financial landscape of the country, especially in the light of global monetary tightening in response to the phenomenon of persistent inflation. This chapter is organized into six sections. The first section starts with an assessment of global economic scenario, which sets the background for further discussions in

the subsequent sections. Section two discusses the domestic macroeconomic outlook in terms major economic indicators such as the overall demand and output conditions and the Inflation scenario. Section three looks at the policy scenario, particularly the fiscal and monetary policy. The section traces varied features of RBI's recent monetary policy tightening phase and examines the policy transmission. The fourth section deals with latest developments in the Indian banking and banks' performance. The fifth section brings out an assessment of financial markets in general and it's various segments including money market, bond market and forex market. The last section summarizes and concludes the discussion.

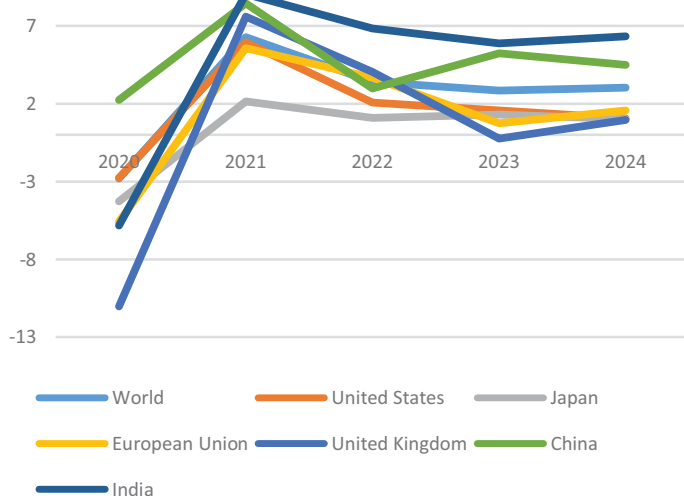
## 1.2. Global Economic Scenario

### *Global Growth and Inflation*

The year 2022 witnessed many of the world central banks rapidly raising their short term policy rates in a bid to contain the fast growing inflation in their respective countries. For instance, the US Fed raised Fed funds rate by 475 basis points from 0.25 percent in March 2022 to 5 percent in March 2023. Similarly Bank of England raised its policy rate by 415 basis points between December 2021 and March 2023. As the world economy was preparing to face higher interest rate cycle, Russia-Ukraine war broke out in late February 2022 (IMF 2022a), making things worse for recovery. With the supply chain situation still being grim due to continued lockdown in China (China had adopted zero-Covid-19 policy, which was relaxed only in

1. The Chapter covers developments till March 2023.

**FIGURE 1.1A**  
**GDP Growth Rates of Select Countries (%)**



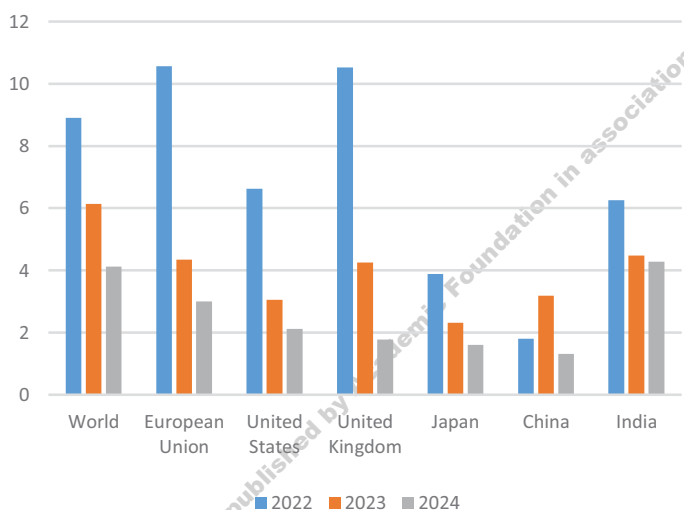
Source: IMF WEO Database, April 2023.

As the year 2022 ended, conditions turned out to be more positive than what was predicted by IMF. Particularly the world economy seemed to have done better in the third quarter of 2022 supported by certain favourable developments such as rise in non-Russian energy supply, restoration of supply chain, etc. With this background, in January 2023, IMF revised the growth outlook for 2023 to 2.9 percent from 2.7 percent made earlier. But once again IMF revised its global outlook downwards in its April 2023 report stating that there are some evolving risks for the world economy (Figure 1.1a). The report points out that global inflation was more stubborn than expected earlier and it may take longer time for interest rates to normalize. Further, the report cites some emerging issues to the financial stability in the wake of recent banking turmoil in the USA (IMF 2023b).

### India's Outlook

Amidst the global turbulence, India seems to be showing relatively stronger performance than many other countries in the world. Though India's growth rate has been improving over the last decade, its performance since the pandemic period has been particularly good. During this period, India could even surpass the growth of China, which thus far has been the fastest growing economy in the world. As per the IMF report, India is projected to growth at 5.9 percent in 2023, the fastest growth rate among the larger countries in the world. The report also projects that India would continue to keep the top position in growth rate among the world countries up to 2028, the period up to which IMF gives projections as on date (IMF 2023b). On the inflation front, India's performance was not particularly bad compared with other countries, though it is higher than that of China and Japan (Figure 1.1b).

**FIGURE 1.1B**  
**Global Inflation Outlook (%)**



Source: IMF WEO database, April 2023.

November 2022), a number of factors including stiffening global commodity prices, energy shortage and sanctions on Russia, made the global growth outlook very bleak for 2022. In the light of these developments, IMF reduced the global growth forecast for 2022 to 3.2 percent from 4.9 percent made in October 2021. The report particularly projected a grim outlook for the world growth in 2023 stating "the worst is yet to come" (IMF, 2022b, p. xii).

When India could hold on to its growth path at the time of global turbulence, how did it reflect in the performance of its economic and financial variables? Particularly, what was the performance of broader level demand and supply variables? How did the financial markets support the growth and what were the policy actions, especially, on the fiscal and monetary policy fronts? These are some of the questions we try to ask in the following sections.

### 1.3. Indian Economy

#### GDP Growth

Following the pandemic year 2020-21, Indian economy showed a smart recovery in the year 2021-22 by posting 9.1 percent growth. However, the growth momentum for the year 2022-23 slowed down marginally, mainly due to the effect of monetary policy tightening and also due to slow down in the global economy. The Second Advanced Estimates released by the NSO in February 2023 put the growth rate for the year at 7 percent. The slowdown was mainly accounted by reduced growth in Private Final Consumption Expenditure (PFCE), Gross Fixed Capital Formation (GFCF) and lower demand for Indian exports. The PFCE growth moderated from 11.2 percent in 2021-22 to 7.3 percent in 2022-23; growth in GFCF has come down from 14.6 to 11.2 percent and exports growth came down from 30 percent to 11.5 percent during the same period.

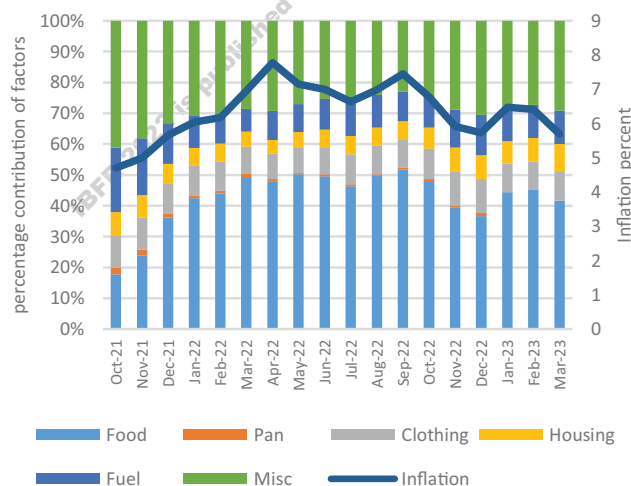
On the production side, the Advance Estimates saw a deceleration in the year 2022-23 mainly coming from the underperformance of industrial output. The growth in manufacturing is particularly expected to stagnate (0.6 percent growth) in 2022-23, compared to 11.5 percent growth in the previous year. Output of services and agriculture, however, are expected to perform better during the same period.

#### Inflation

Inflation in India was largely benign during the pandemic period in 2020, ruling at 4 to 5 percent levels, which was well within the 6 percent upper limit set for Monetary Policy Committee (MPC). However, it quickly grew in tandem with global inflation and crossed the 6 percent mark in January 2022. Initially, RBI and MPC were not favouring any policy actions as the economy was perceived to be still in the recovery mode from the pandemic impact. But, as the inflation level neared the 8 percent level in April 2022, MPC took quick actions. First, in an off-cycle meeting in May 2022 MPC announced repo rate hike and the rate hiking cycle started from there on and still ongoing as of date (more on this later in the section on monetary policy developments).

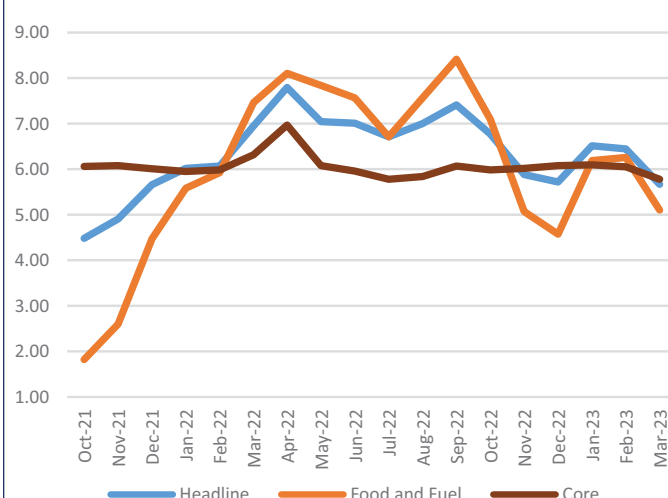
Most of the CPI inflation in India last year was coming from food inflation. Food inflation, along with fuel inflation is said to be the highest volatile component of inflation. Usually, this inflation is attributed to supply side conditions and are expected to subside as supply conditions improve. However, sustained food inflation may raise the inflationary expectations and contribute to the momentum of inflation. As can be seen from Figure 1.2a, 30 to 50 percent of inflation was contributed by food inflation between December 2021 and December

**FIGURE 1.2A**  
**Sources of Inflation**



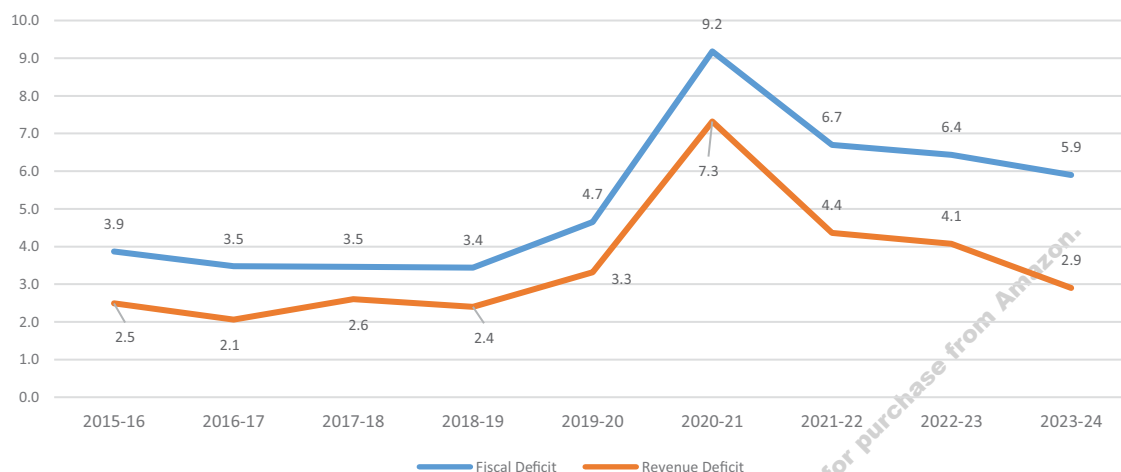
Source: RBI; share compiled by authors.

**FIGURE 1.2B**  
**Trend in Core Inflation (%)**



Source: Economic outlook.

**FIGURE 1.3**  
**Union Budget Deficit Measures (percentage to GDP)**



Source: Ministry of Finance.

ber 2022, which may have generated some inherent momentum in the Indian inflation for period later on.

Core inflation is measured without taking food and fuel inflation into consideration. Figure 1.2b shows that core inflation sustained above 6 percent last year, even though some amount of moderation was visible in headline inflation. As a momentum indicator, core inflation is closely watched by the RBI and this seem to be the matter of concern as expressed by RBI recently. (RBI, 2023a)

## 1.4. Policy Scenario

This section discusses the larger role played by two major policies in stabilizing macro economy of India, viz., fiscal policy and monetary policy. Apart from recent developments in this space, we shall also focus on certain medium term issues that may be of interest in this juncture.

### Fiscal Scenario

Government of India has very effectively deployed fiscal policy measures in fighting the pandemic impact on the economy in 2020-21 and also the economic recovery following that. Government of India forwards its expenditure policy mainly through schemes called Central Sector Schemes (CS) and Central Sponsored Schemes (CSS), both of which saw significant

growth in the pandemic year and continue to grow later on. Central Government made several schemes that focus on protecting the small scale business and other vulnerable. The scheme included welfare schemes, food subsidies, credit guarantee schemes, infrastructure promotion, incentives to industries, etc.

Though the fiscal measures were largely effective in stabilizing the macro economy of India, they left fiscal discipline of the government in disarray. Fiscal deficit had reached 9.2 percent in 2020-21 and continues to be high thereafter. While high fiscal deficit contributes to increased interest payments in the union budget, are there any medium term concerns on debt sustainability?

### Deficit Measures

Deficit financing is largely analysed through Revenue Deficit and Fiscal Deficit<sup>2</sup>. Revenue deficit is the gap between revenue receipts and the revenue account expenditure. In other words, it represents the amount of debt needed to fund the revenue expenditure. In India, the budget for 2023-24 estimates Revenue Deficit at Rs 8.7, lakh crores which is about 20 percent of total budget expenditure and 48 percent

2. In India, central government defines two more deficit concepts, viz., primary deficit and effective revenue deficit.

TABLE 1.1

## Central Government Finances: Actuals as Percentage of Budget Estimates

	Revenue Receipts	Non-Debt Capital Receipts	Revenue Expenditure	Capital Expenditure	Revenue Deficit	Fiscal Deficit
2019-20	85.8	57.27	96.03	99.16	137.43	132.67
2020-21	80.85	25.62	117.24	103.45	237.94	228.33
2021-22	121.33	20.94	109.28	106.97	90.46	105.16
2022-23	106.53	105.31	108.27	97.07	112.2	105.67

Source: CMIE Economic Outlook.

of fiscal deficit. Ideally, revenue deficit should not exist, at least on a sustained basis, though same may not be said about fiscal deficit. But India has been having revenue deficit of about 20 percent of the budget as a long-run average. Compared with GDP, the long-term average of revenue deficit has been about 3 percent (Figure 1.3).

Fiscal Deficit represents the overall gap in the budget, including gap in revenue account and gap in capital account. In absolute size, Fiscal Deficit for the year 2023-24 was budgeted at Rs. 17.6 lakh crores, which is about 40 percent of total budget size (GoI, 2023b). While the target set under Fiscal Responsibility and Budget Management (FRBM) Act is 3 percent of GDP, fiscal deficit in India has been much higher, particularly in the recent past due to relief measures during the Covid-19 pandemic and other fiscal policy measures in fighting the recession following the pandemic (Figure 1.3).

While the FRBM Act provides for the central government to deviate from the fiscal deficit targets under circumstances such as natural calamity and other exigency situations, it requires the government to return to fiscal discipline as soon as possible. Under FRBM Act, Government needs to specify the medium term plans in achieving the fiscal discipline. Accordingly, the current government has set medium term fiscal deficit target to 6.4 percent for 2022-23, 5.9 percent by the end of 2023-24 and further to 4.5 percent level by 2025-26 (GoI, 2023c).

Are the finances of union government in track with their estimates? How has been the Government of India been performing in achieving the fiscal targets?

### Budget Performance

In the past two years viz., 2020-21 and 2021-22, government tax collection has shown buoyance in general. Gross Tax Revenue (GTR), which is the sum of all taxes collected by central government before sharing it with state governments as per Finance Commission's formula, have shown 33.7 percent growth in 2021-22 and are estimated to grow by 10.3 percent in the 2022-23. The performance has been shared by both direct and indirect taxes, which roughly constitute 50 percent each in the total collection (GoI 2023b).

Did higher than estimated revenue performance led to fiscal consolidation? Not necessarily as budget exceeded the estimates even on the expenditure side. On the whole for the year 2022-23, while revenue receipts exceeded the budget estimates by 6.53 percent, the revenue expenditure exceeded by 8.27 percent, widening the gap between expenditure and revenue.

Based on Table 1.1, one can say that increased tax and non-tax revenues have gone some way to help fiscal consolidation, particularly on the revenue account, but due to increased spending on infrastructure and other developmental works, fiscal deficit continues to grow.

### Debt Sustainability

The term 'Public debt' refers to the total debt of the Government of the country. In India public debt accounts for the debt of both central government and all the state governments put together. As of March 2023, Indian public debt stands at Rs. 229 lakh crores, accounting for 84 percent of GDP. Out of the total, predominant



share is owned by the central government (Rs. 153 lakh crores or 67 percent of total public debt). The rest is owned by all of the state governments together.

Is the public debt in India unsustainable? As things stand today, this does not look to be the case. There are two reasons for this. First, almost all of the public debt of India is internal debt and there is almost negligible amount of external debt. As of 2022-23 less than 4 percent of central government's debt is external debt. The share would even go down when considered with respect to combined public debt. Therefore, probability of India getting into unsustainable external debt hardly exists. However, the question of managing internal debt is also important as it may lead to macroeconomic imbalances in the economy, if not to default risk. The secondly reason is that it is widely held that as long as the real GDP growth rate is higher than real interest rate, public debt continues to be sustainable (Goyal, 2021). In this respect, currently Indian GDP growth rate is around 6 to 7 percent and the real interest rate is generally maintained at levels below 2 percent by RBI, suggesting no great risk to public debt sustainability in India.

### *Monetary Policy Developments*

During the period of Covid-19 pandemic in 2020, RBI had initiated unprecedented number of monetary policy measures to ensure smooth functioning of financial system in India. The policy measures ensured ample availability of liquidity, low interest rates, special schemes to financing targeted sectors, etc<sup>3</sup>. While the economy was recovering from the pandemic impact, it received another setback in the form of global inflation in late 2021. The global inflation set off a wave of financial market volatility in India and also led to Inflation in India. The role of monetary policy again become important in this context. The following is a brief account of recent inflation in India and the actions taken by RBI.

Inflation in India started inching up from September 2021 onwards when it was 4.4 percent.

In about eight months' time, it rose to 7.8 percent in April 2022. As mentioned earlier, the fast rising inflation triggered action from MPC which announced a hike in May 2022 and also changed the monetary policy stance from accommodation to withdrawal of accommodation. This was the beginning of current ongoing monetary policy tightening, which was followed up by many rate hikes further on. The policy rate was progressively increased from 4 percent in April 2022 to 6.5 percent in February 2023. A total of 250 basis points rate hike in a period of 10 months qualifies as one of the fastest rate hikes in the history of India. How did the market respond to the monetary policy tightening?

### *Liquidity Conditions and Rate Transmission*

In line with the shift in the monetary policy outlook, the condition of excess liquidity in the market was brought down progressively to near neutral level by late 2022. The net absorption by RBI under the LAF fell from about daily average of 7 to 8 lakh crores between March 2022 and May 2022 gradually fell to near zero levels by September 2022 (Figure 1.4a).

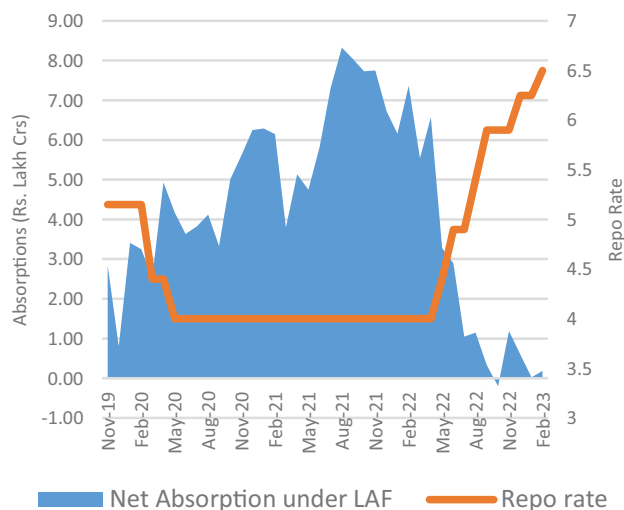
Weighted Average Call Money Rate (WACR), which is also the operative target observed by RBI had moved to a level below the reverse repo (now SDF rate), the lower bound of LAF corridor maintained by RBI during the flush liquidity times. However, with the rate hike cycle starting from May 2022, WACR gradually moved to levels within the corridor. From the levels of about 3.28 percent during April 2022 the WACR gradually reached a level of 6.51 percent by February 2023, thus reflecting a transmission of 323 basis points, which is more than the policy rate hike (Figure 1.4b).

The monetary policy transmission, however appears to be different in the long-term markets. Figure 1.5a shows the yield curve shift in the secondary market of T-Bills between pre and post monetary tightening points of time (taken as March 2022 and January 2023 respectively). At the near end of the term (1 month) the shift is about 310 basis points and at the farther end (12 months) the shift has been 244

3. For a more detailed account of monetary policy measures see Nagaraju and Ray (2021).

FIGURE 1.4A

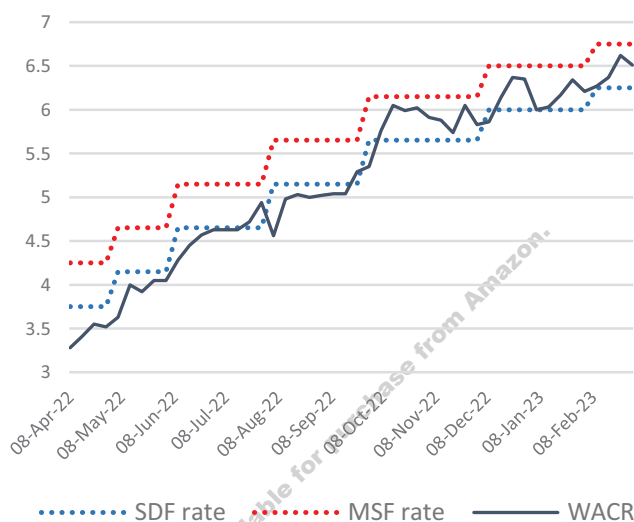
**RBI's Monthly Net Liquidity Absorption under Liquidity Management (Rs. Lakhs. Cr.)**



Source: RBI.

FIGURE 1.4B

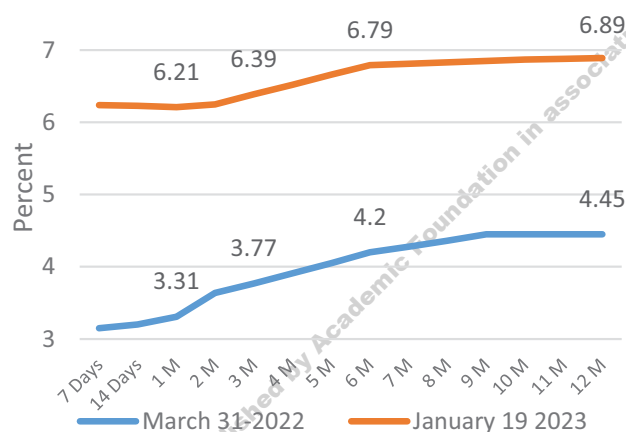
**Weighted Average Call Money Rate (%)**



Source: RBI.

FIGURE 1.5A

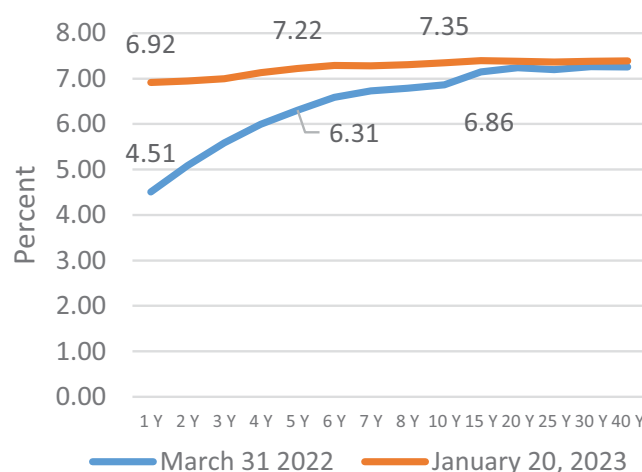
**Monetary Policy Transmission in Market Rates: T-bill curve**



Source: Financial Benchmark India Ltd (FBIL).

FIGURE 1.5B

**Monetary Policy Transmission : Indian Sovereign Yield Curve**



Source: Financial Benchmark India Ltd (FBIL)

basis points. Chart 1.5b shows the shift in the yield curve in the Government securities market. At 1 year term the shift is much more than in the longer term yields. While at 1 year term the shift is about 241 basis points (96 percent transmission) and as we go to farther terms to 5 years and 10 years, the rise is 91 basis points (37 percent) and 49 basis points (19 percent) respectively.

How well has the interest rate transmission occurred in the retail market? Table 1.2 gives the extent of rate transmission that occurred at two instances of interest rate cycle. First one is the Easing Cycle which started in February 2019 when economy was undergoing recession. The cycle continued into the Covid-19 pandemic period and lasted up to April 2022, when the current tightening cycle started. During this period of 26 months, policy rates were slashed by 250

TABLE 1.2

## Monetary Policy Transmission from Repo Rate to Deposit and Lending Rates

	Existing Accounts		Fresh Accounts
Easing Cycle (Feb 2019 to April 2022) -250 basis points cut	Loans	-150	-232
	Deposits	-188	-259
Tightening Cycle (May 2022 – February 2023*) 250 Basis points hike	Loans	95	173
	Deposits	99	222

\*Ongoing cycle

Source: compiled by authors

basis points in total. The rate cut was absorbed differently by deposit and loan markets.

It can be observed that in the easing cycle, existing loan customers got a benefit of 150 basis points (60 percent transmission) and the existing deposit customers lost 188 basis points (75 percent transmission). On the incremental accounts (fresh accounts), the transmission on loans is much more (232 basis points/ 92 percent) than on the deposit accounts (208 basis points/ 83 percent).

What is transmission in the current tightening cycle? Transmission appears to be slower than what it was during the easing cycle. Out of 250 basis points rate hike, on the existing loan accounts, the transmission is 95 basis points accounting to 38 percent. On the existing deposit accounts, the transmission was 40 percent. On the incremental accounts, the transmission appears to be much faster in deposit accounts (222 basis points / 89 percent) and to a little lesser extent on fresh loan accounts (173 basis points / 69 percent).

It is clear that transmission in the wholesale market is generally faster than in the retail market, but longer term wholesale market response much lower than the shorter end market. In the retail market, rate transmission seems to be following two principles; 1. The transmission will be much faster on the incremental (fresh) accounts than on the existing (outstanding) accounts; 2. In both the easing cycle and tightening cycles, transmission will be slower on loan accounts than on the deposit accounts.

Starting from the Asset Quality Review (AQR), a special drive undertaken by RBI in 2015, Indian banking system underwent a serious problem of Non-performing assets (NPA) in the later part of 2020s. In the year 2017-18, Indian banks collectively reported NPAs of Rs 10.3 lakh crores, which accounted for about 11.2 percent of total banking advances. Most of the NPAs were reported by public sector banks (Figure 1.6). Though the PSBs held a share of 66 percent in total banking assets, their share of NPAs in the total was 86 percent.

The NPA problem triggered several measures and programmes by both the regulator and the banks together to get the Indian banking back in order<sup>4</sup>. Government of India, the owner promoter of the PSBs, initiated several measures, including consolidation, capital infusion and several measures to improve the performance of the PSBs<sup>5</sup>. The banks, on their part, undertook several measures to bring their balance sheets to shape, including extensive recovery drive, improved business processes and other management measures to improve their efficiency. With such measures, gross NPA rates in public sector banks gradually reduced from 14.6 percent in 2017-18 to 7.3 percent in 2021-22. Correspondingly, NPAs in the total Indian banking reduced from 11.2 percent to 5.8 percent in the same period. This has further improved to 4.5 percent as on December 2022 (RBI 2023b).

Indian banking came back on its track with improved appetite for credit risk. Bank credit in India, which was stagnant at about Rs. 110 lakh

4. An insightful account of the recent crisis in Indian financial sector can be seen in Bandyopadhyay (2020).

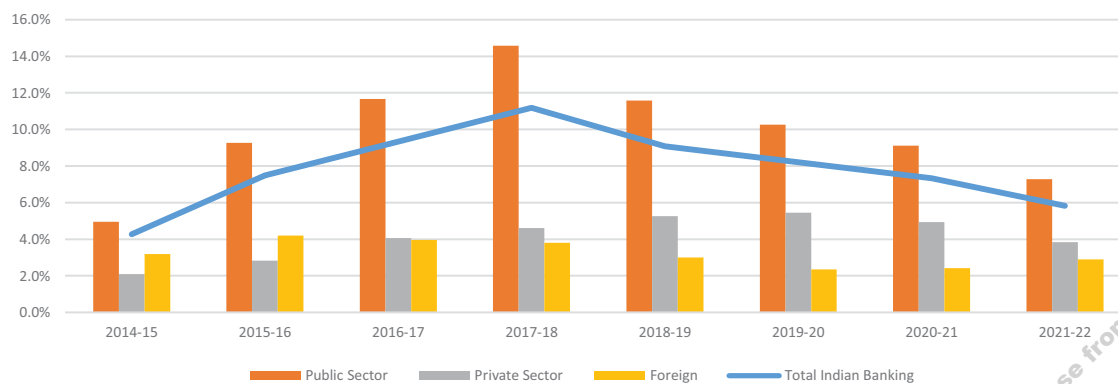
5. Enhanced Access and Service Excellence (EASE) is one such initiative to improve the servicing capacity of PSBs.

## 1.5. Banking Sector Development

In the recent past, Indian banking sector went through a roller coaster ride in its performance.



**FIGURE 1.6**  
**Gross NPA in Indian Banking**



Source: RBI.

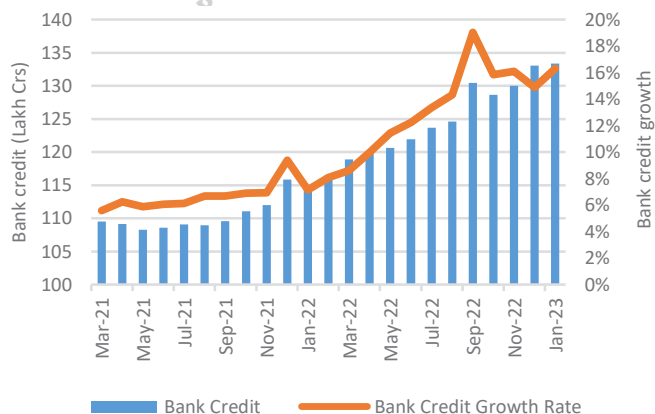
crores until November 2021, grew gradually to reach a level of Rs 130 lakh crores by November 2022 showing a growth rate of 16 percent (Figure 1.7a). The banking credit growth was also well supported by resurgent corporate sector of India. The profit before tax and interest (PIBT) of Indian corporates as percentage of income ranged between 17.5 percent to 14.4 percent post pandemic periods (Figure 1.7b).

During the pandemic times investment was the preferred portfolio for the bankers as they were lured by the prospects of gaining from the falling interest rate scenario. In October 2020, nearly Investment/deposit ratio was about 0.4 and credit/deposit ratio was 0.7. But, as the credit conditions improved, bankers quickly moved their funds to credit channel. During

2021-22, nearly 80 percent of incremental funds were placed in credit and only about 19 percent were moved to investment channel. (Figure 1.7c and Figure 1.7d).

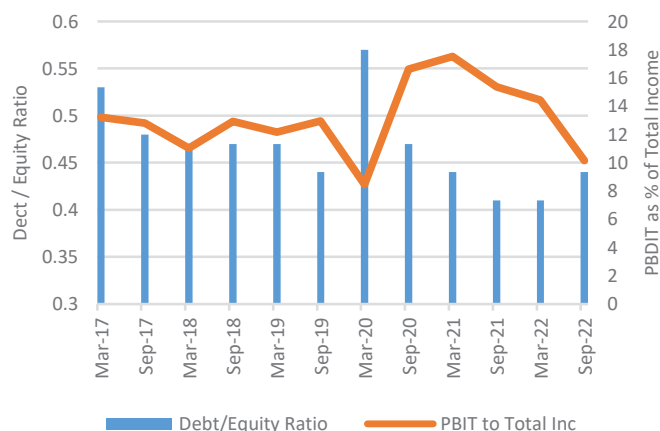
The strong revival of bank credit in the recent years is a resurgence with a difference. The NPA saga had a lesson to offer to the Indian banking that they need to diversify away from high concentration on corporate credit. Earlier, bankers were, in general vying for big ticket large scale infrastructure and industrial projects for their lending as that would boost their balance sheet size, but did not heed much to the risk it would bring with it. As the economic events turned around, these advances happened to hold most of the NPAs of the banks. The significant reworking of credit allocation over the

**FIGURE 1.7A**  
**Non-Food Credit (Rs. Lakh Cr.)**

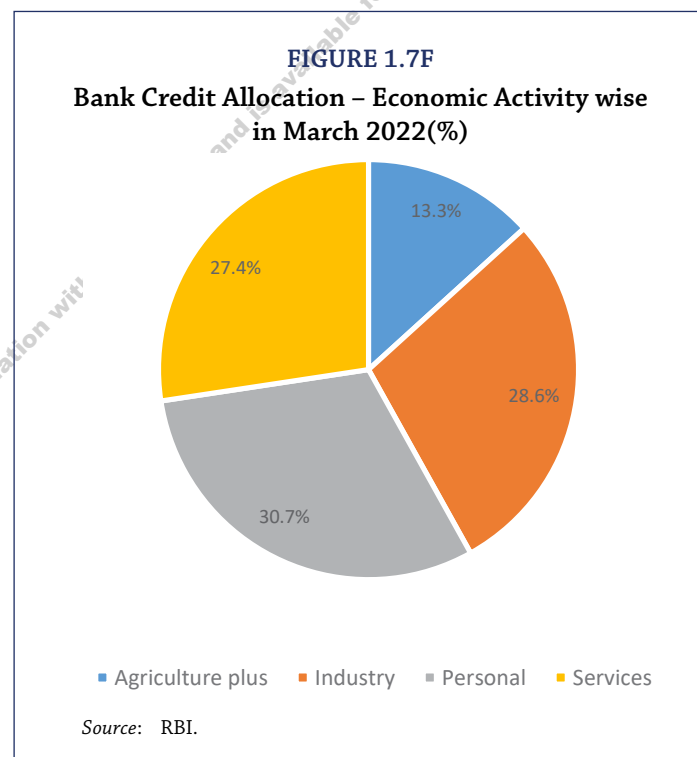
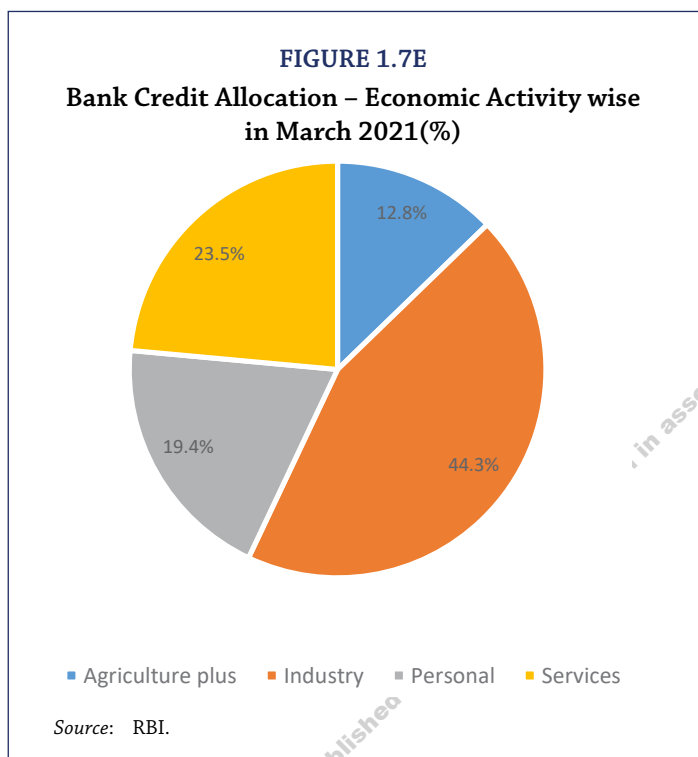
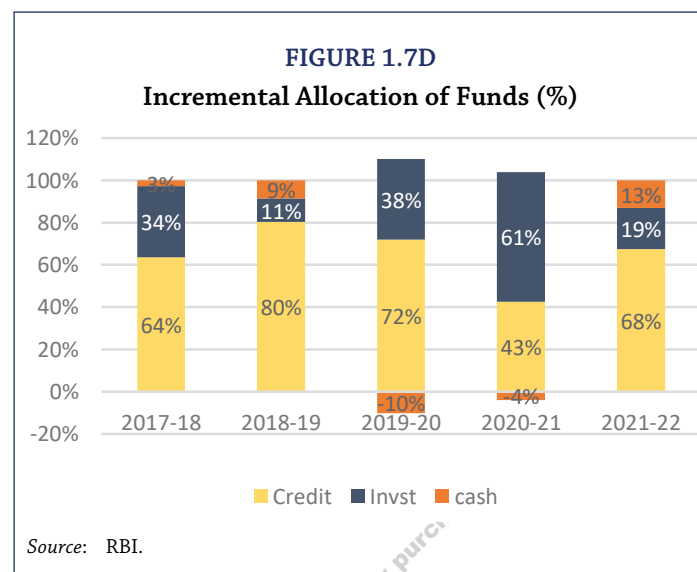
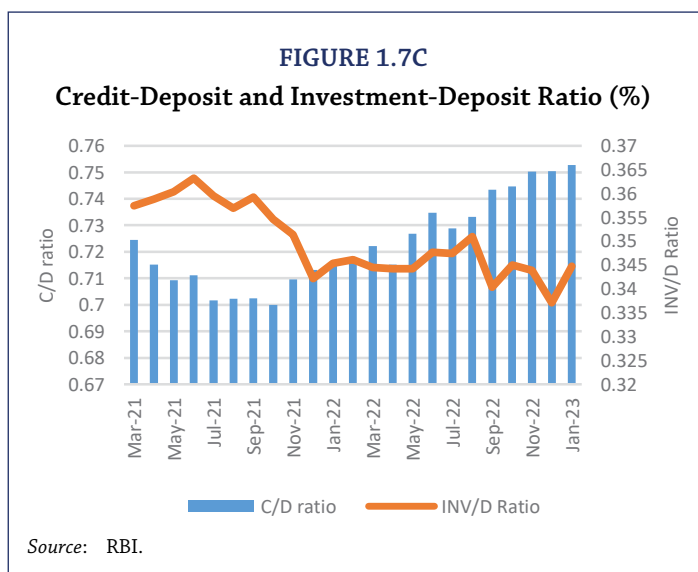


Source: RBI.

**FIGURE 1.7B**  
**Manufacturing Sector (In %)**



Source: RBI.



period starting from 2015-16 resulted in structural change in the distribution of bank credit, where the share of industrial credit reduced and retail credit share increased in its place. As of March 2022, the share of industry credit in total stood at 28.6 percent, which was at 44.3 percent March 2015 (Figure 1.7e and 1.7f).

### Deposit Growth

Whether bank deposits keeping pace with bank credit? As deposits fund credit, it is important

that there is a synchrony between the two in their growth rates. However, in the recent past, deposit growth seem to have lagged behind the growth of bank credit. Whereas bank credit growth increased from about 5 percent in August 2021 to about 16 percent in November 2022, bank deposit growth rate continued at about 10 percent all through the period (Figure 1.8a). As a result the excess deposits, i.e., the difference between bank deposits and bank credit, narrowed down, reducing the scope for credit expansion (Figure 1.8b). Interestingly,

FIGURE 1.8A

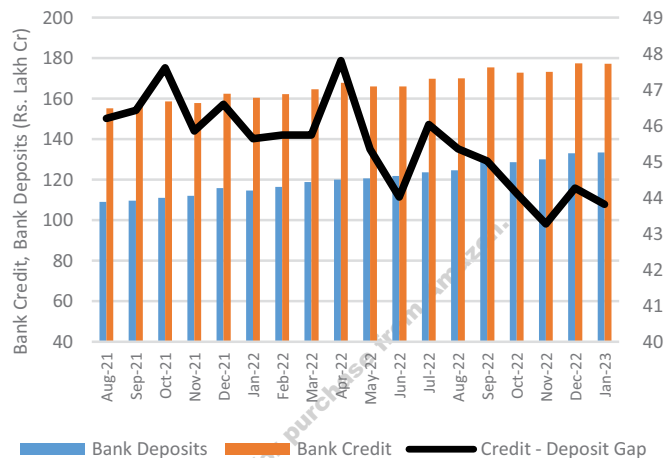
## Bank Credit and Bank Deposit Growth Rates



Source: RBI.

FIGURE 1.8B

## Bank Deposit and Bank Credit (Rs. Lakh Crs)



Source: RBI.

bank deposit growth rate is not only lagging behind the credit growth rate, it is also demonstrating a secular declining trend over a longer period, which is a more serious matter of concern.

### Performance Parameters

In the following we shall have some focus on the health and performance of Indian banking in terms of some key indicators such as capital adequacy, provision coverage ratio and other others.

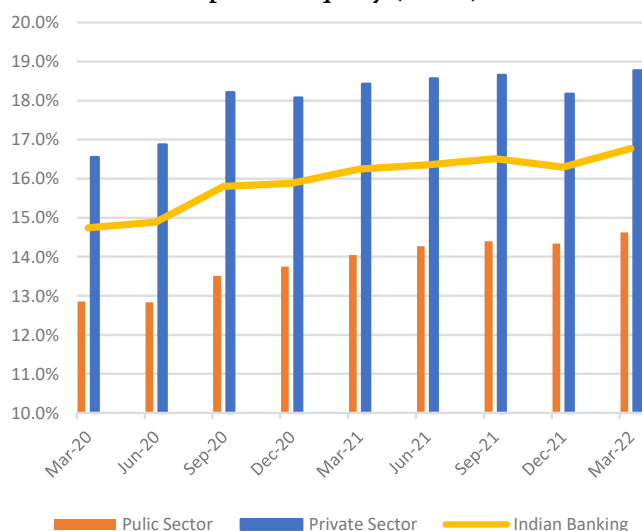
Firstly, Indian banking sector in general appears to be comfortably placed as far as capital adequacy is concerned. As of March 2022, the Capital to Risk weighted Assets Ratio (CRAR) for the entire banking is well above 16 percent against the regulatory requirement of 11 percent. At 14.6 percent, public sector banks have the lowest CRAR among the groups of banks, yet, it is much better than what it was in 2018 (11.3 percent) when public sector banks had to provide huge capital against non-performing assets (Figure 1.9a). Whether the current levels of CRAR are adequate? Given the risk levels in the system, it is estimated that Indian banking system continues to require high CRAR in the range of 15 percent to 13 percent to withstand stress situations (RBI, 2022b).

With respect to Provisioning Coverage Ratio (PCR), which is an indicator that measures the capital allocated to absorb possible losses in the assets, Indian banking has progressively reached a level of 75 percent in 2020 from a low level of 40 percent in 2015. Though this ratio moderated due to rise in NPAs during pandemic period, it is still maintained at above 70 percent (Figure 1.9b).

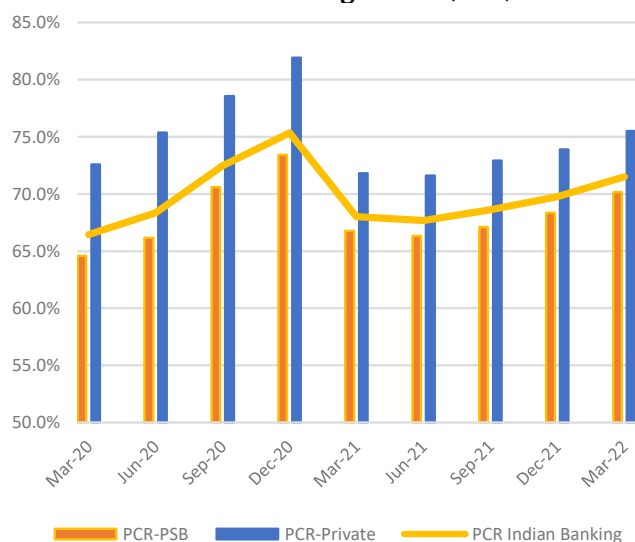
In terms of actual volume of funds, the provisions made by the Indian banks reached historical high of Rs 5.2 lakh crores in 2018 from a level of Rs 1.3 lakh crores in 2015. With such increased provisioning, public sector banks could reduce their NNPA ratios from a high level of 8 percent in March 2018 to 2.4 percent in December 2020 and further to 2.2 percent in March 2022 (Figure 1.9c).

Net Interest Margin, which measures the net interest earnings as percentage to interest bearing assets reflects the inherent strength of banking business. At the industry level, NIM was at about 2.5 percent in 2015-16, and it largely stayed stable even during the banking sector crisis period and also the Covid-19 pandemic period. The striking observation is that the private sector banks in general have much higher levels of NIM hovering around 4 percent. There is a strong lesson for public sector banks here to improve their NIM, which still

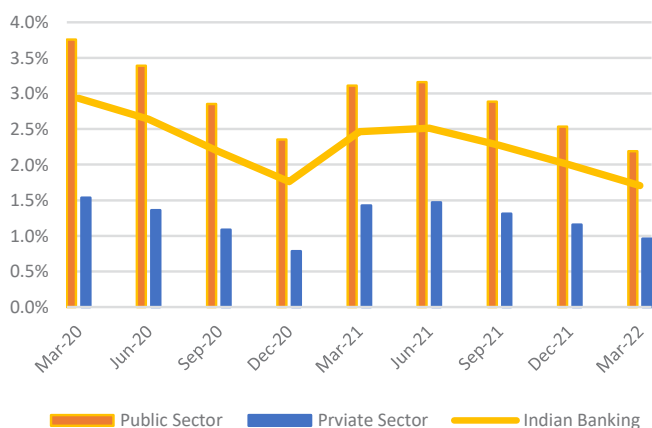
**FIGURE 1.9A**  
**Capital Adequacy (CRAR)**



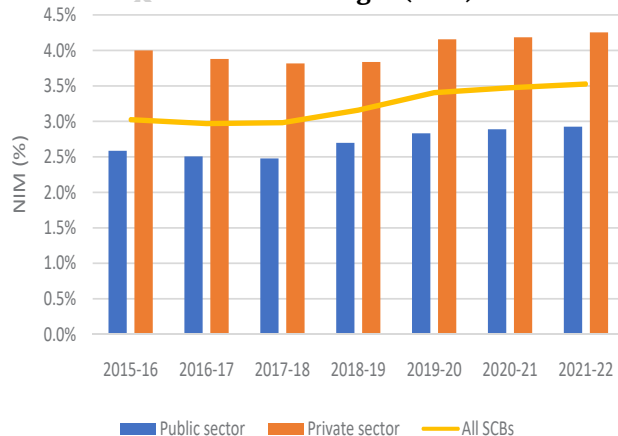
**FIGURE 1.9B**  
**Provision Coverage Ratio (PCR)**



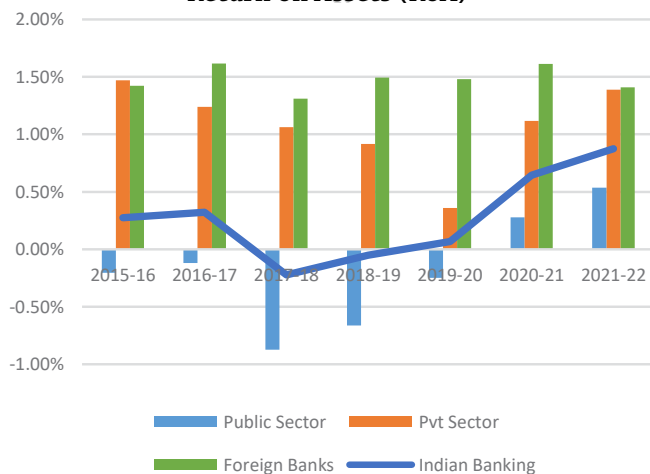
**FIGURE 1.9C**  
**Net Non-Performing Assets (NNPA)**



**FIGURE 1.9D**  
**Net Interest Margin (NIM)**



**FIGURE 1.9E**  
**Return on Assets (RoA)**

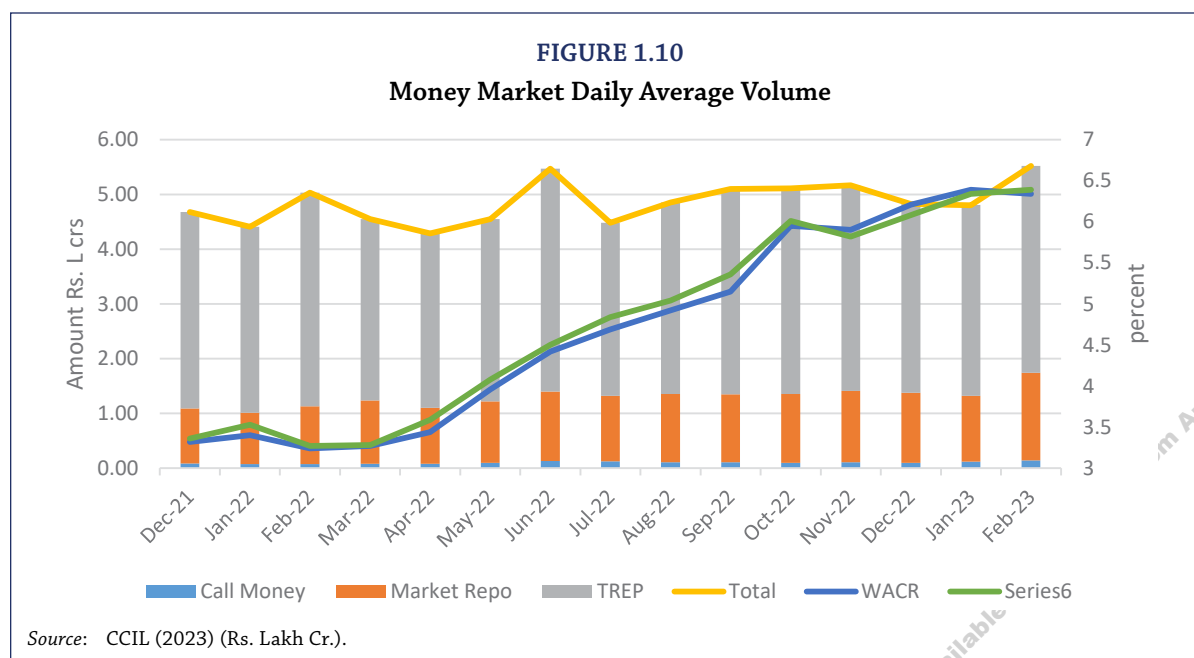


**FIGURE 1.9F**  
**Returns on Equity (RoE)**



Source: RBI.

Source: RBI.



hold substantial share of assets in the Indian banking (Figure 1.9d).

The large scale provisioning had surely helped the Indian banks in cleansing their balance sheet, but did it helped them in showing up good returns? Going by the indicators of Return on Assets (RoA) and Returns on Equity (RoE), which are defined as ratio of Net profits to total assets and Equity respectively, one can see that banking sector in India has truly experienced a turnaround in the post Covid-19 pandemic period.

In 2015-16, prior to the large scale recognition of NPAs, the Indian banking sector was showing net profit of Rs. 34 thousand crores and RoA of 0.28 percent. However, in 2017-18 and 2018-19, Indian banking sector showed net losses of Rs. 32.4 thousand crores and Rs. 8.1 thousand crores respectively. After the banking sector recovery and healthy credit growth, net profits of Indian banking increased and consequently, RoA ratios improved to 0.67 and 0.87 respectively for 2020-21 and 2021-22 (Figure 1.9e).

Return on Equity is watched closely by equity investors in the banking sector. Due to incurring net losses, public sector banks incurred negative returns on equity for five years between 2015-16 and 2019-20. Though this pulled down the sector's RoE, Indian banking as a whole turned positive RoE by 2019-20.

As of 2021-22 March, the sector's RoE turned above 10 percent (Figure 1.9f).

## 1.6. Financial Markets

In the wake of ongoing monetary policy changes and other global developments, it is pertinent to know how different segments of financial markets in India responded. In the following sections, we present the broad trends observed during the recent period in a few important financial markets in India, viz., money market, and government securities market, equity market and foreign exchange market

### Money Market

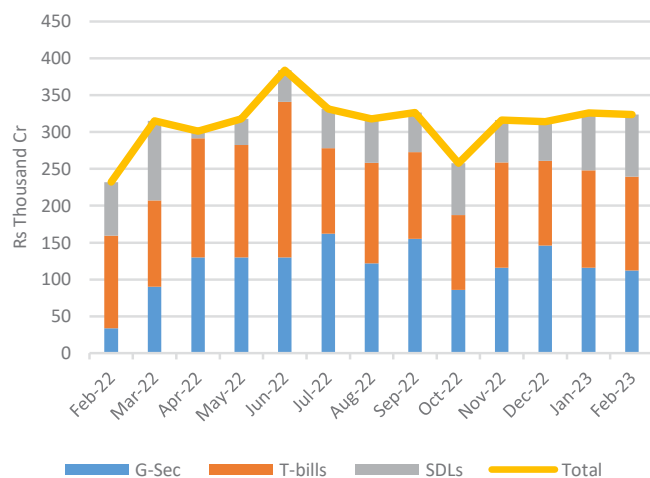
Money market holds important position among the financial markets as it reflects the overall liquidity situation in the economy, which is vital for smooth functioning of other financial markets in general. As per the data released by CCIL, Indian money market has been operating resiliently and growing at a rapid pace in volume terms during period of 2019-20 and 2021-22<sup>6</sup>. Figure 1.10 shows that money market continues to operate at healthy volumes in the recent past, unaffected by the policy changes.

6. Average daily volume collectively in the three markets (Call money, Triparty Repo Market (TREPS) and Market Repo) in 2019-20 was Rs 23.9 lakh crores, which increased to Rs 41.0 lakh crores in 2021-22, amounting to 30 percent annual growth rate (CCIL, 2023).



FIGURE 1.11A

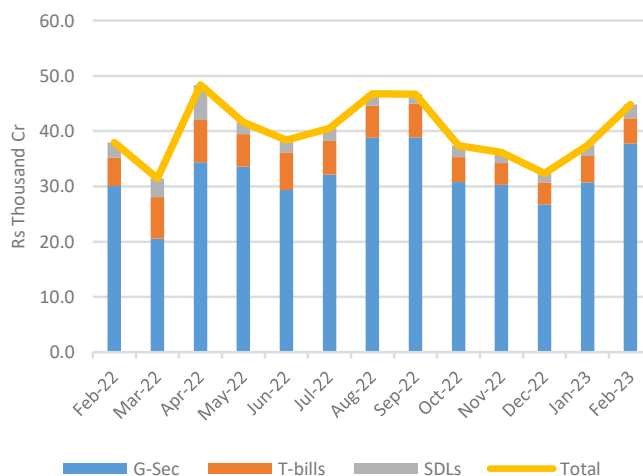
## Government Securities Primary Market Issues



Source: RBI (Rs. Thousand Cr.)

FIGURE 1.11B

## Government Securities Daily Average Turnover in Secondary Market



Source: RBI (Rs. Thousand Cr.)

The average volume during the period of one year between December 21 and December 22, collectively in the three money markets was about Rs 5 lakh crores, which is the highest in the recent past. The interest rates in the market are very closely following WACR, which is already discussed earlier.

The figure also show that among the three markets, TREPS market has been the most popular constituting about 75 to 80 percent total money market volume. Market repo constitutes the second largest market, while the interbank call money market has about just 2 percent of market share and declining over time.

### Government Securities Market

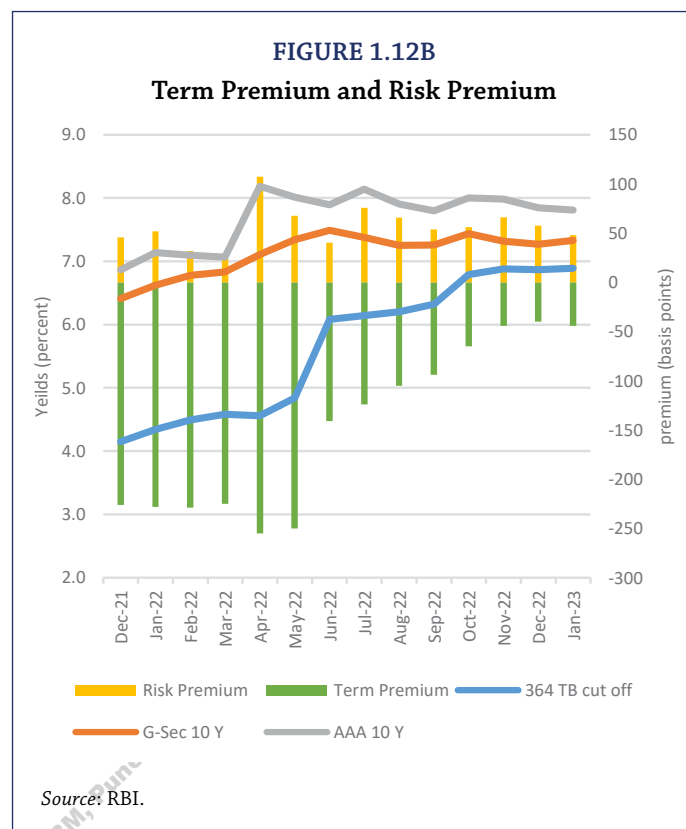
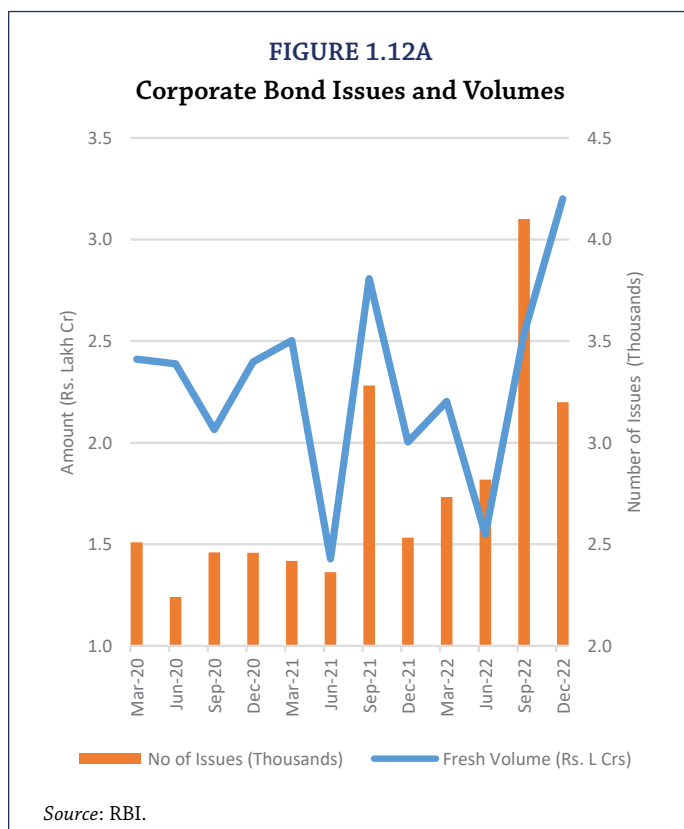
Government securities market plays very important role in the overall financial system. Being risk free sovereign instruments market, the rate in the market usually works as bench mark for valuation of other securities. Fixed income securities are also demanded as investment instruments by many institutions such as banks, pension funds, insurance funds and others. A well traded and adequately liquid government securities market is a necessary prerequisite for traders as well as for investors.

In the primary market RBI conducts auctions for three instruments, viz., Gsecs, which are the dated securities of Government of India,

TBs or treasury bills which are short-term borrowing instruments of Government of India and SDL (State Development Loans) or state government bonds, which are instruments of different federal state governments. Among the three instruments, treasury bills dominated the primary market with a monthly average of Rs 1.4 lakh crores followed by Gsec market with average volume of Rs. 1.2 lakh crores. Though SDLs stand second in terms of total outstanding debt, they are not very frequent in auctions<sup>7</sup> (Figure 1.11a)

In the secondary market Government securities trade on a daily basis with an average daily turnover of Rs. 38 thousand crores, measured during the period of December 2021 and December 2022. Out of this volume, Gsec market has predominant share of Rs. 30 thousand crores, constituting roughly 78 percent of total volume (Figure 1.11b). Liquidity for SDLs in secondary market is hard to find. Secondary market usually operates on OTC and on CCIL provided NDS-OM platform. Interbank trades are settled by CCIL by operating accounts held with RBI. For all others, CCIL is the central counterparty.

7. As of September 2022, government securities outstanding amount in the market is Rs.146.1 lakh crores. Out of this central government bonds constitute Rs 91.4 lakh crores (62 percent), TBs constitute Rs. 9.2 lakh crores (6 percent) and the remaining Rs 45.9 lakh crores (31.3 percent) are constituted by SDLs.



The policy rate hike cycle seem to have shown significant impact on the term premiums. The term premium, measured as difference between 364 day TB rate and 10 year Gsec yield fell steeply from about 220 basis points in December 2021 to about 40 basis points in January 2023 (Figure 1.12b). What explains such a steep fall?

Short-term yields usually reflect the liquidity condition in the market. More the liquidity availability, lower will be short-term rates. On the other hand, long-term bonds are more of growth oriented in their rate determination. Before the rate hike cycle, RBI had maintained ample liquidity in the market, which drove down short-term rates. Therefore, the term spread was high. However, as the excess liquidity got evaporated, short-term rates firmed and therefore lower spread are seen in the recent times.

### Corporate Bond Market and Risk Premium

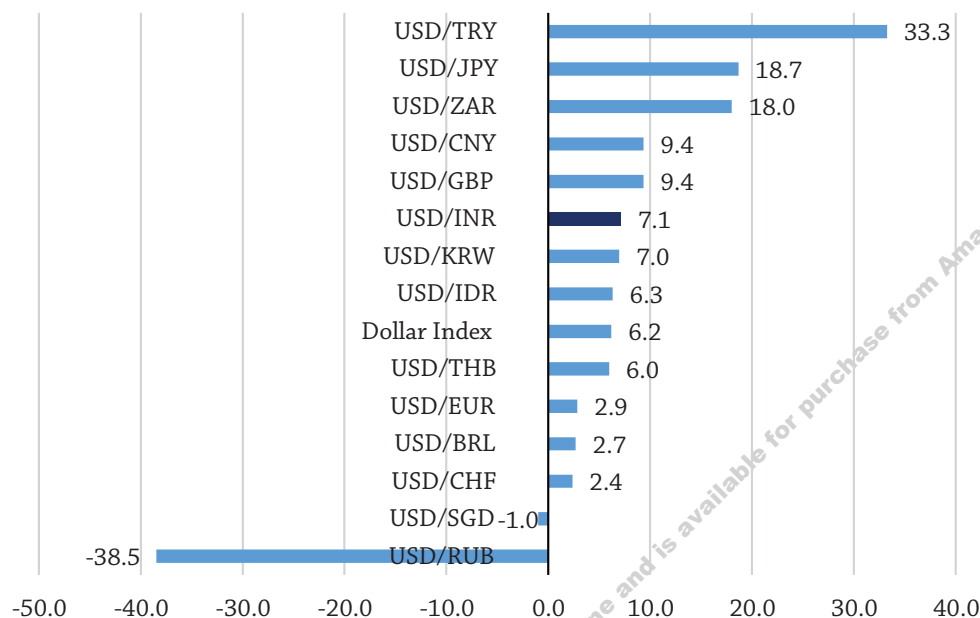
Corporate bond market is an evolving market in India with volumes and number of issues

growing gradually over period of time. Prior to pandemic, in 2018, the number of issues were roughly about 1.5 to 2 thousand per month and the volume mobilized was ranging between Rs. 1.2 to 2.1 lakh crores. The market activity grew continuously through the pandemic times and as of late 2022, the numbers of issues stood at 4.1 thousand and the funds mobilized were about Rs. 2.5 lakh crores on the issues (Figure 1.12a).

Yields of the corporate bonds in India generally followed the trend in the larger market, namely, the government security market. The 10 year AAA rate corporate bond rate was at about 6.9 percent in December 2021 and the same moved to 7.8 percent in January 2023 in tandem with the general rise in the yields in the market. The credit spread, which is also termed as risk premium, measures the risk perception on the corporate bonds over and above the risk free government securities and it remained fairly stable at about 50 to 60 basis points during the period. The spread went up to 108 basis points in April 2022 when the policy tightening cycle was announced, but the move was temporary and the rates quickly fell back to average level of

**FIGURE 1.13**

**Performance of International Currencies: Percentage Change Against USD  
During February 2021 to February 2022**



Source: Eikon Refinitive

USD: US Dollar, TRY: Turkish Lira, JPY: Japanese Yen, ZAR: South African Rand, CNY: Chinese Yuan, GBP: British Pound, INR: Indian Rupee, KRW: South Korean Won, IDR: Indonesian Rupiah, THB: Thai Baht, EUR: Euro, BRL: Brazilian Real, CHF: Swiss Franc, SGD: Singapore Dollar, RUB: Russian Ruble

55 basis points further on (Figure 1.12b). The stable risk premium reflects the strong confidence of the public in the Indian corporate sector performance, which has been doing fairly well particularly in the post pandemic period.

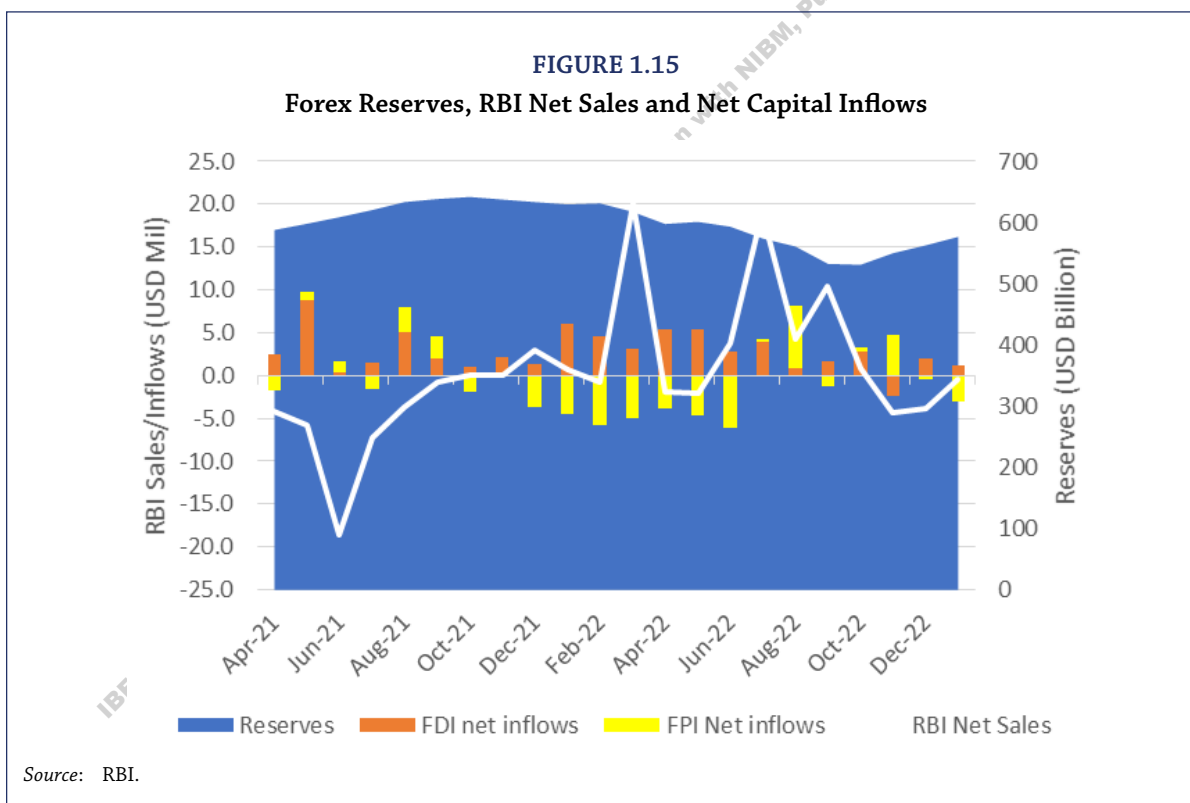
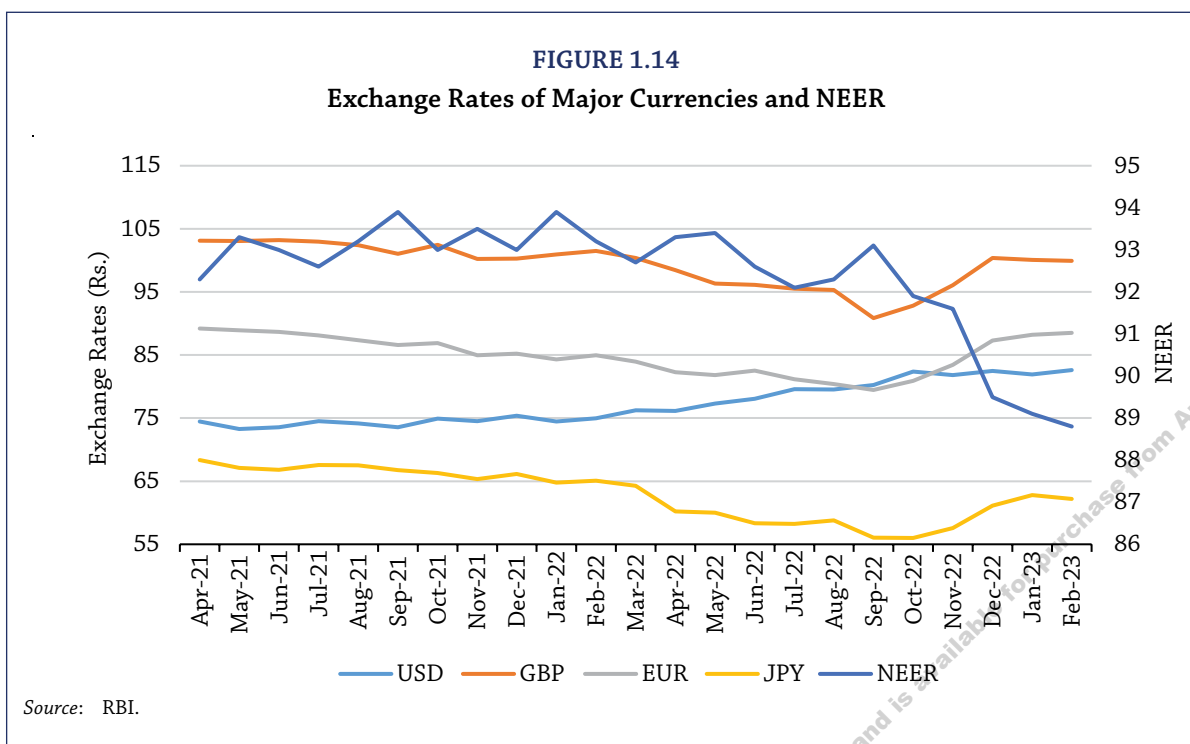
### *Foreign Exchange Market*

The global financial tightening starting from March 2022 along with other factors like war induced commodity prices surge threw the currency market into a turmoil, where in US dollar strengthened across the currency markets as the 'safe heaven' demand kicked in. The dollar index which was at its recent low of 90 in June 2021 quickly surged to 113 in October 2022 and since then subsided to a level of 105 as of February 2023. Figure 1.13 shows the relative performance of select world currencies against USD during the last one year period of February 2022 and February 2023. It is clear that world currencies in general depreciated against USD, Indian rupee, however, performed better than

JPY, GBP, ZAR and CNY, the countries with which India shares significant trade relations.

The weighted average price of rupee in terms of the currencies of its global trading partners is reflected in Nominal Effective Exchange Rate (NEER), a concept very similar to Dollar Index. NEER for INR was about 92.4 in April 2021 indicating that rupee was undervalued at the then existing exchange rates when compared to 2015-16 bench mark year. As the currencies market turned volatile, NEER increased and reached a level of 94.7 in January 2022 and remained thereabouts until up to September 2022. As the global currencies started rising with respect to USD, NEER went down further to undervaluation levels. Thus, though in terms of USD, rupee was depreciating for large part of 2022, it was not depreciating in effective terms (Figure 1.14)

Among the many factors, exchange rate of currency is influenced by net capital flows into the



market. How did the capital flows perform during the last year?

During the late 2021, India experienced significant net outflow of FPI consecutively for about 9 months at a rate of roughly USD 4 billion per

month. The total Foreign Portfolio Investments (FPI) outflow during that period amounted to USD 35.6 billion. To some extent, the FPI outflows were made good by net FDI inflows, but on the whole there was a negative flow out of India during that period (Figure 1.15)

The capital outflows exerted significant pressure on the exchange rate in the market and rupee was depreciating fast against USD. This perhaps necessitated RBI to sell in the market to bolster the supply and bring down the volatility. RBI had sold a net of USD 54 billion between October 2021 and September 2022, perhaps the highest known intervention in the forex market so far in India. Indian foreign exchange reserves which stood at USD 642 billion in October 2021, got reduced to USD 533 in September 2022, mainly due this intervention and it was also affected by depreciation of other foreign currency assets in its portfolio. The exchange rate of rupee stabilized at about Rs 82 levels from October 2022 onwards till date.

## 1.7. Concluding Observations

The year 2022 started off with a gloomy outlook for global economy as there was high inflation and uncertainty due to continuing Russia-Ukraine war. Added to this global economy faced monetary tightening by most of the central banks in their fight against raging inflation. As the year progressed, however, global outlook looked a wee bit better as inflation rate held on and the global economy in general showed resilience in terms of demand. As per IMF's report issued in January 2023, global inflation may have peaked out in 2022 and growth would bottom out in 2023. However, the recent events of financial sector turmoil in the US and the persistently high global inflation has darkened the prospects of a soft landing and risks to the economic outlook is tilted towards down side (IMF,2023b).

Indian economy remained the bright spot in the global economy both before the Covid-19 and after Covid-19 pandemic. Indian economic growth was 9.1 percent in 2021-22, but expected to slow down to 7 percent in 2022-23 as per NSO<sup>8</sup>. The current slowdown was primarily contributed by weak performance of private consumption, capital formation and exports. On the production side, concerns are

there regarding manufacturing output, which almost stagnated in 2022-23.

Indian inflation caught up with global inflation from January 2022. MPC and RBI initiated rate hikes and announced withdrawal of liquidity, thus starting off a tightening cycle from May 2022 onwards. By February 2023, policy rate was hiked by 250 basis points in one of the fastest rate hike moves in the recent times. Most of the rate hike was quickly absorbed by market. Particularly transmission was more than 100 percent in the short-term instruments. On the retail side, transmission was in general less than what is seen in wholesale market.

On the fiscal side, Indian government has focussed more on capital expenditure to boost the infrastructure development. The share of capital expenditure increased from 15 percent in 2020-21 to 20 percent in 2023-24 budget. Tax collections in general have shown buoyance and many times exceeded the budget estimates significantly. This has given some support in achieving fiscal consolidation.

Indian banking has fully recovered from the asset quality problem that affected it in the second half of last decade. While bank credit growth has picked up speed, fresh concerns emerged on the deposit growth rate as it has stagnated at 10 percent growth for a long time. In terms of performance parameters, Indian banking has shown optimism.

Indian financial markets, particularly money market, government securities market, corporate bonds market and foreign exchange market have been functioning seamlessly throughout the pandemic and post during the pandemic recovery period. India has been largely resilient and immune from the negative global spill overs. Despite losing ground initially with respect USD, Indian currency stabilized with respect to weighted exchange rate of currencies of trading partners of India. Added to this, comfortable levels of foreign exchange reserves and lesser level of unhedged foreign currency exposures and greater participation of domestic investors in the capital market helped Indian financial markets function smoothly. During this period, India's external sector indicators also showed considerable improvement

8. Economic Survey 2022-23 makes a baseline forecast of 6.5% for India's real GDP growth rate for FY 2023-24 and expects this growth to be in the range of 6-6.8% conditional on the state of global economic and political developments GoI (2023d).



in terms of current account deficit and foreign exchange reserves.

Notwithstanding the resilience seen in the financial sector in India, risks to financial stability remain very high due to weakness in international economic and financial conditions. Internationally, many middle and low income countries are facing serious debt servicing conditions due to high interest costs that financial tightening has brought upon them

(Prasad, 2023), which may trigger off another global financial crisis in the near future.

Provided that global environment stays stable, Indian economy is expected show continuous growth performance going forward. Indian policy has proactivity kept the macro environment conducive and financial markets operational. Banking sector has turned around from its difficult times and poised to support the economic growth.

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