

India's credit landscape in a post-pandemic world

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Keywords: Banking sector, Credit ecosystem, Pandemic, Consumer credit, Commercial credit.

JEL Code: G21, G23, G28

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Abstract

In this paper we study the impact of the Covid-19 pandemic on the financial sector of the Indian economy, specifically on the banking sector, the non-banking finance companies (NBFCs) and the bond market, for the period March 2020 to March 2022. In order to set the context, we first summarise the conditions of the financial sector in the pre-pandemic period. We highlight the long-term structural trends and their underlying drivers that were conspicuous in this sector even before the pandemic. These issues have direct consequences for the manner in which the pandemic impacted the financial sector which is what we discuss next. Finally, we describe the way forward for the Indian credit landscape in terms of the major opportunities and challenges.

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1. Introduction

Stable availability of credit for business and commerce is a necessary pre-condition for investment and hence growth in any economy. For an emerging economy like India, supply of credit for investments is critical for achieving and sustaining a high GDP (gross domestic product) growth rate. Historically, the banking system has been the primary, formal provider of commercial (i.e. non-government) credit in India. In the last decade or so, the bond market has also emerged as an important source of credit. The growth and wider spread of mutual funds and insurance firms has channelised increasing share of household savings into corporate bonds. Moreover, the non-banking finance companies (NBFCs) have proved to be critical for providing credit to some segments of borrowers unserved or underserved by banks. External commercial borrowings (ECB) by firms have gone up as well during the last decade, though the access to ECB is regulated and it is a relatively smaller share of domestic credit.

The last decade witnessed several events that profoundly impacted the delivery and the availability of credit in India across all these sources. The prolonged NPA cycle from 2013 to 2019, Asset Quality Review in the banking system by the RBI in 2016, Demonetisation in 2016, the launch of the Goods and Services Tax (GST) in 2017 and issues related to its implementation, the enactment of the Insolvency and Bankruptcy Code in 2016, the default of a large NBFC in 2018, the Covid-19 pandemic that began spreading in India in 2020 and finally heightened global uncertainty in a post-pandemic world- all these events have impacted the availability of credit. Actions of the key participants in the credit ecosystem – banks, non-banking finance companies (NBFCs), bond markets, regulators (RBI and SEBI), and the government - in response to these events have shaped the evolution of the credit landscape.

In this chapter, we analyse these developments in the overall credit ecosystem in India during the period from FY2011 to FY2022, primarily with a focus on the impact of the Covid-19 pandemic.³ In order to understand the repercussions of the pandemic and the response of the Indian financial system, it is important to provide a broader and longer context. Using a detailed data analysis, we throw light on some of the noteworthy trends and patterns that can be discerned in the evolution of the financial and specifically in the credit landscape of India during the last decade. While the pandemic was an external shock for the financial system, several long-term trends were visible from before, some of which got amplified during the pandemic whereas some of the long-standing issues got resolved to a certain extent. We end this essay with a brief description of the important opportunities and challenges faced by the Indian credit landscape as it enters into the next decade.

³ i.e. 2010-11 to 2021-22 with each financial year (FY) ending on March 31 and starting on April 1. We discuss in terms of financial years throughout the paper.

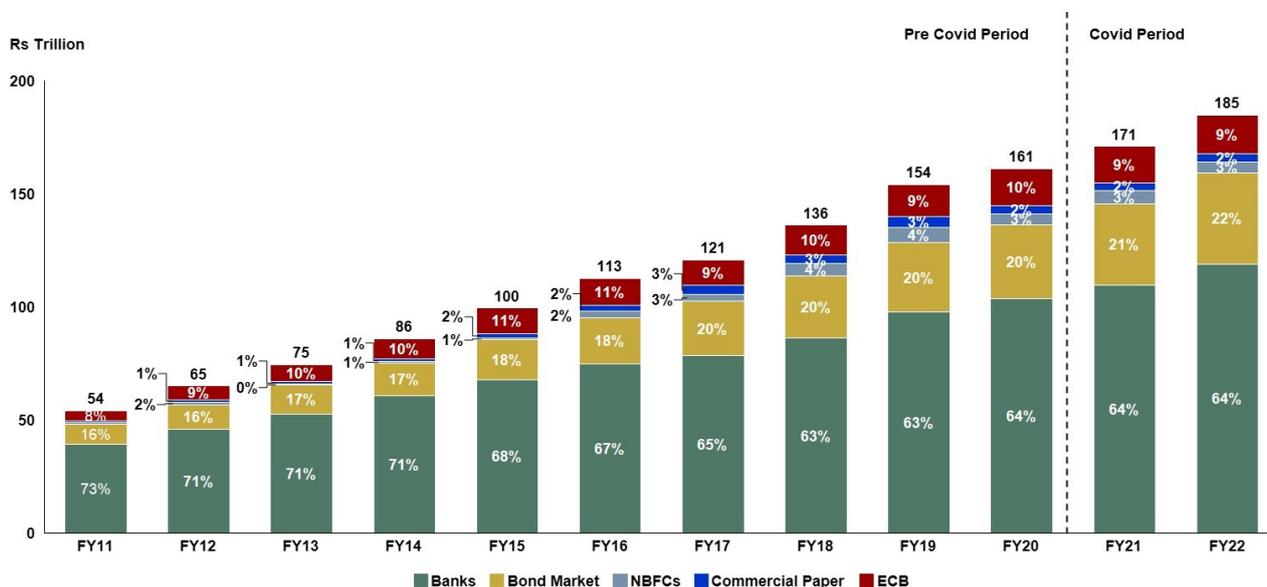
2. Pre-pandemic period

In the years preceding the pandemic, the financial sector in India underwent several significant changes which impacted all sources of credit - the banks, the NBFCs as well as the bond market. In this section we take a brief look at some of these developments. We first analyse the trends and patterns in the overall credit landscape and then focus specifically on the banking sector which is still the largest provider of credit in India. While we show the graphs and tables for the period FY2011-FY2022, we focus on the decade prior to the pandemic i.e. FY2011-FY2020. Throughout our paper we analyse total non-government credit, generally referred to as “commercial credit” or “credit to the commercial sector” by the RBI.

2.1. Growth and composition of total credit

There are four main sources of commercial (i.e. non-government) credit in India – the banking system, the non-banking finance companies (NBFCs, including housing finance companies (HFCs)), the bond market which includes dated bonds and commercial paper (CP), and external commercial borrowing (ECB).⁴ Figure 1 below depicts the evolution of the shares of these credit sources over the period from 2011 to 2022.⁵ The credit from NBFCs is *net* of their borrowing from banks and the bond market.

Figure 1: Shares of various credit sources in total credit, 2011-2022



Source: RBI, SEBI, CRISIL, authors' computations.

Note: Numbers on the stacks depict share in total credit. Years are financial years ending March of that year. Total credit refers to total commercial or non-government credit; credit by NBFCs is *net* of credit from banks and bond market to them.

⁴ In this paper by “credit” we mean commercial or non-government credit.

⁵ All years are financial years starting on April 1 and ending on March 31.

The most noteworthy trend from this figure is that the share of the banking sector declined from 73% in 2011 to 64% in 2020, while at the same time, the share of the bond market went up from 16% to 20%. The shares of NBFCs (net of NBFCs' borrowing from banks and bond market) and commercial paper also inched up while the share of ECB remained more or less steady at 9%-10%. The figure also shows that total outstanding commercial credit grew from Rs 54 trillion in 2011 to Rs 185 trillion in 2022 at a compounded annual growth rate (CAGR) of 11.8%.

Table 1 below shows the growth rates of credit from the main sources during the pre-pandemic period. We find that credit from the bond market outpaced that from banks with a CAGR of 15.5% as against 11.3% for bank credit. While credit through commercial paper (CP) also grew faster than banks, their share in the overall credit remains very small. A remarkable development was that net credit from NBFCs grew at a staggering CAGR of 25.5%. Growth in ECB also outpaced overall credit growth with CAGR of 15.6%.

These decadal growth rates, however, obscure the dramatic change that happened during the decade. To throw more light on this, we split the pre-pandemic decade into two halves.

Table 1: Growth (CAGR) of commercial credit in India, 2011-2020

Source	2011-2020	2011-2015	2015-2020
Bonds	15.5%	18.4%	13.2%
Banks	11.3%	14.6%	8.8%
NBFCs	25.5%	5.0%	44.8%
CPs	17.6%	24.7%	12.3%
ECB	15.6%	25.9%	7.9%
Total	12.9%	16.4%	10.1%

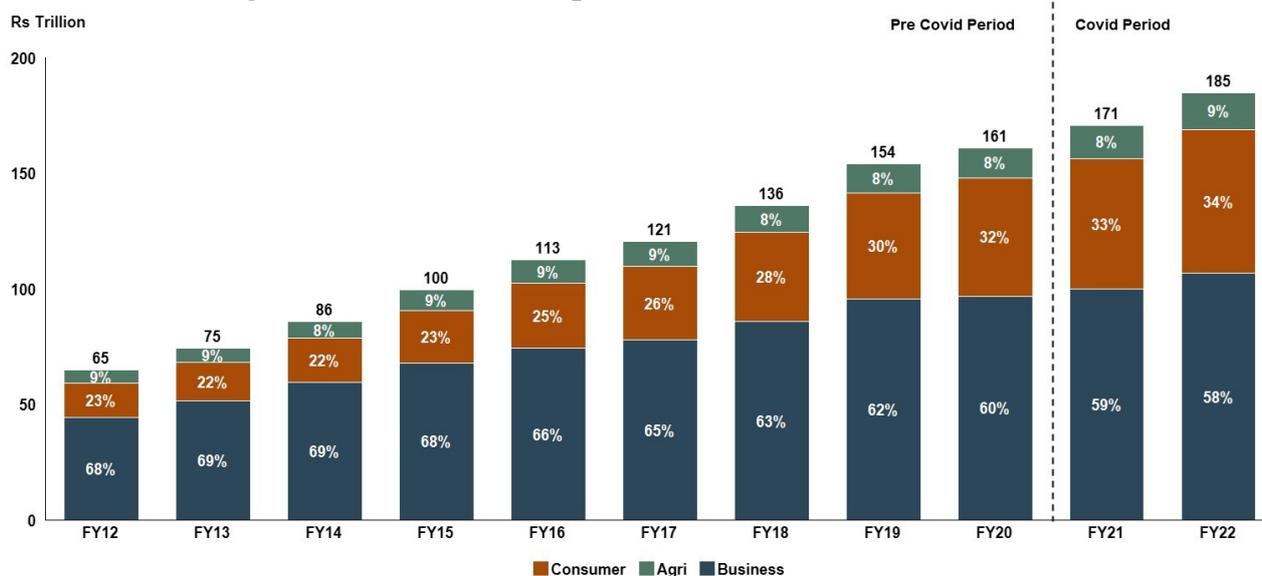
Source: RBI, SEBI, CRISIL, authors' computations

Note: CPs denote commercial papers and ECB denotes external commercial borrowing by firms. Years are financial years ending March of that year. Credit refers to total commercial or non-government credit.

We see that across all sources of credit (barring NBFCs) there was a sharp decline in growth in the second half (2015-2020) of the decade. The overall credit growth declined from 16.4% in the first half (2011-2015) of the decade to 10.1% in the 2015-2020 period. The credit growth decline is especially large for bond markets (including commercial papers). The only source of credit that experienced a sharp increase in growth rate were the NBFCs whose credit growth went up dramatically from 5% to close to 45%. We discuss this in greater detail in subsequent sections.

We next look at the changes in the composition of the borrower segments for total credit. For simplicity, we divide the borrowers into three segments: (i) business, which includes large and MSME enterprises as well as service businesses including non-consumer credit of NBFCs (ii) agriculture, and (iii) consumer credit (i.e. individuals and households). The evolution over time of the shares in total credit of these three segments is depicted in Figure 2 below.

Figure 2: Borrower composition of total credit, 2012-2022



Source: RBI, authors' computations

Note: Numbers on the stack bars are the share of the segment in overall credit. Years are financial years ending March of that year. Credit refers to total commercial or non-government credit.

The figure shows that there has been a significant 'consumerisation' of credit in India over the last decade (Sengupta and Vardhan, 2021). In the pre-pandemic period, the share of consumer credit in total credit went up from around 23% in 2012 to 32% by 2020. There has been a parallel decline in the share of credit to businesses, from 68% to 60%. The share of agriculture has remained flat at about 9%. It is important to note that this consumerisation of the overall credit landscape has happened almost entirely due to the rise of consumer credit in the banking system. Other sources of credit - bond market and commercial paper, ECB - are accessible to only a small section of large and established corporations.

For consumers, agriculture, and a vast majority of MSME (Micro, Small and Medium enterprises) borrowers in India, the banking system is the only source of credit. Therefore, in order to better understand the credit landscape, we take a closer look at banking credit.

2.2.1 Banking credit

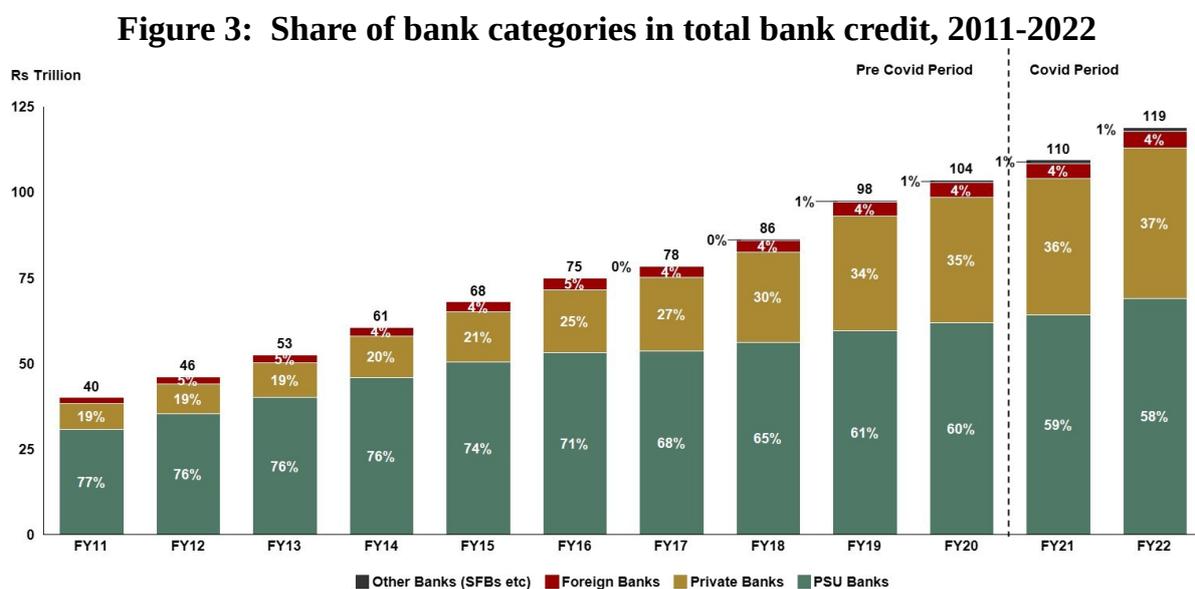
Banks remain the largest provider of credit in India.⁶ There are several segments of borrowers for whom the banking system is the only source of formal credit. While NBFCs

⁶ Here we primarily mean scheduled commercial banks; the shares of other banks such as co-operative banks, regional rural banks, small finance banks etc are very small.

have emerged as significant credit institutions in the last decade, it is important to keep in mind that nearly 50% of funding for NBFCs comes from the banking system. Except for the large 20 or so NBFCs that have access to the bond market, other NBFCs rely almost entirely on the banking system for funding. To obtain a comprehensive understanding of the Indian credit landscape, therefore, we have to take a close look at the banking sector.

Despite their share of total outstanding credit having declined from 2011 as mentioned earlier, banks still account for nearly two-thirds of the total outstanding credit. Over the ten-year period from 2011 to 2020, total outstanding credit from the banking sector grew at a CAGR of 11.3% (Table 1). However, the first half of the decade witnessed a growth of banking credit of 14.6% and it declined to 8.8% in the second half. We throw some more light on this development in Section 2.3.

Indian banking sector has three main ownership categories of banks: government owned banks that are generally referred to as the public sector banks (PSBs), private sector banks and foreign banks. There are other types of banks such as the co-operative banks and the small finance banks (SFBs), but their collective share of the overall credit is very small. Figure 3 below details the evolution of the shares of these 3 categories in the overall bank credit over the last decade.



Source: RBI, authors' computations

Note; Years are financial years ending March of that year. Total bank credit refers to total non-government credit disbursed by the scheduled commercial banks.

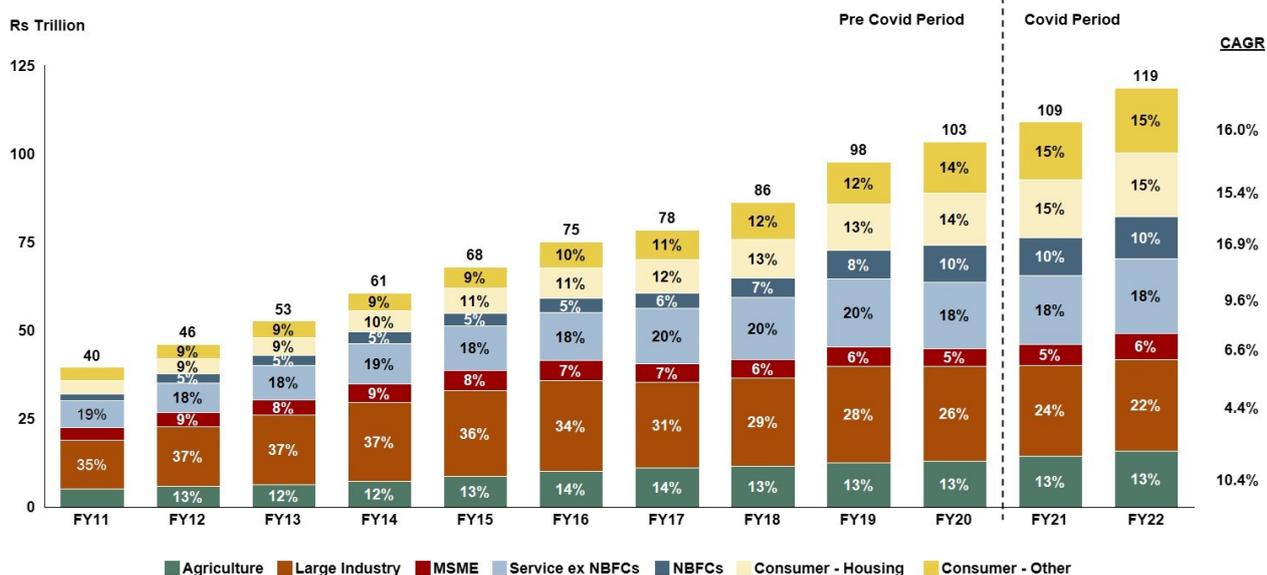
This figure shows the dramatic shift of market shares from public sector banks (PSBs) to private banks. In 2011, PSBs accounted for 77% of total banking credit and this share declined to 60% by 2020. Nearly this entire lost share of PSBs went to the private banks

whose share went up from 19% to 35% in the same period. The share of foreign banks has remained almost flat at 4%.

In terms of rates of credit growth, our data highlights a stark difference between the PSBs and the private banks. We find that the PSBs experienced a substantial decline in credit growth, from close to 9% in the first half of the pre-pandemic decade to less than 5% in the second half, whereas the private sector banks hardly witnessed any change in credit growth rate in the pre-pandemic period. For the foreign banks, growth rate remained almost unchanged during the pre-pandemic period.

We also look at the mix of borrowers of the banking system. Figure 4 below gives the breakup of banking credit across various borrower segments for the pre-pandemic decade. From this figure we get the same picture of a dramatic ‘consumerisation’ trend in the Indian banking in the pre-pandemic period, similar to what we had seen in Figure 2 for the entire credit landscape. In 2011, the total share of industry (large and MSME firms) was 44% which collapsed to 31% by 2020. The share of consumer credit went up substantially from 19% in 2011 to 30% in 2020. About half of this was unsecured or quasi secured (secured against weak collateral) consumer credit (labelled as Consumer-Other in Figure 4).

Figure 4: Borrower segment-wise breakup of bank credit, 2011-2022



Source: RBI, authors' computations

Note: Numbers on the stack bars are the share of the segment in overall credit. Years are financial years ending March of that year. Credit refers to total commercial or non-government credit.

The other segment whose share in banking credit went up remarkably is the NBFC segment. Their share doubled from about 5% in 2011 to 10% in 2020. It is important to note that 60% of the NBFCs credit is to the consumer segment. Thus, the share of banking credit going to consumers, directly and indirectly (via NBFCs) has now reached well above 30%. While

that of industry is barely 30%. Shares of agriculture and non-NBFC services have remained almost constant through this period at 13% and 18% respectively.

Table 2 below shows the growth rate (CAGR) of bank credit according to the borrower-segments during the pre-pandemic decade and the numbers confirm the findings we gleaned from Figure 4. We see that between 2011-2015 and 2015-2020, growth rate of credit to industry declined sharply from 15.4% to 1.9%, credit to MSMEs shrank, while growth of credit to NBFCs nearly doubled. We also find that growth rate of credit to the “other-personal” category (i.e. unsecured consumer credit) increased in the second half of the pre-pandemic decade.

Table 2: Growth (CAGR) of segment wise bank credit, 2011-2020

Segment	2011-2020	2011-2015	2015-2020
Agriculture	10.9%	14.0%	8.5%
Large Industry	7.7%	15.4%	1.9%
MSME	4.0%	13.0%	-2.7%
Service ex NBFCs	10.7%	13.2%	8.7%
NBFCs	20.3%	15.7%	24.0%
Personal Housing	16.2%	16.9%	15.6%
Other Personal	16.6%	13.4%	19.3%
Total	11.3%	14.6%	8.8%

Source: RBI, authors' computations

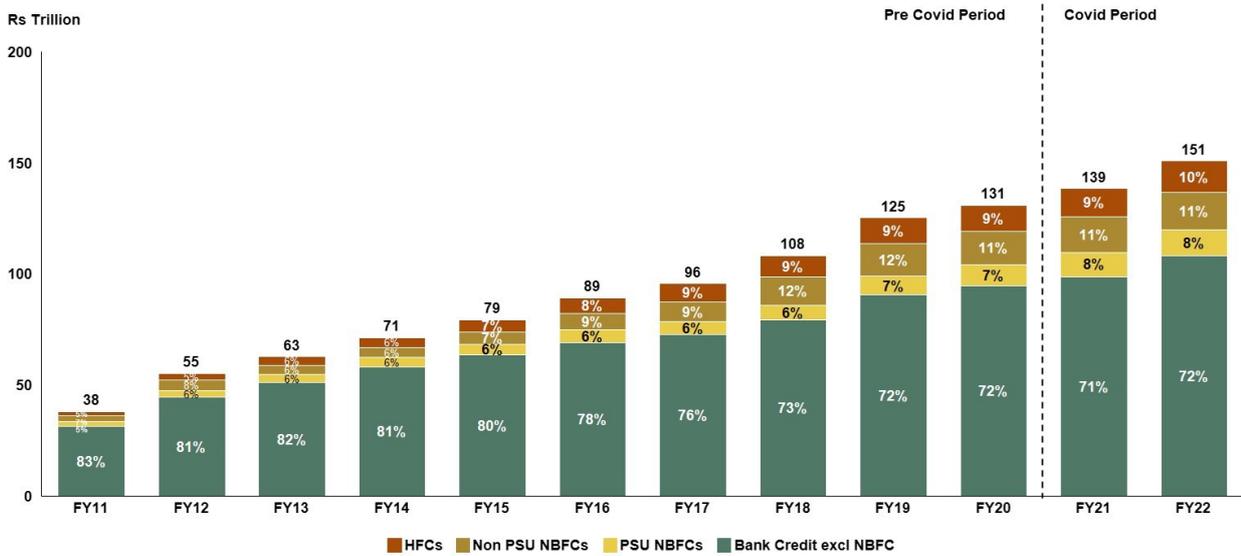
Note: Years are financial years ending March of that year. Credit refers to total commercial or non-government credit.

2.2.2. Non-banking credit

As is clear from the above discussion, one of the major changes that took place in the Indian credit landscape in the pre-pandemic period was the declining share of the banking sector in total credit (Figure 1) as well as the fall in the growth of bank credit (Table 1). In fact, Table 1 shows that during the decade from 2011 to 2022, of all the sources of commercial credit, bank credit grew at the slowest pace at only 11.3%. During this time, NBFCs emerged as important credit providers (Sengupta et al, 2022).

The CAGR of credit disbursed by NBFCs was 44.8% in the 2015-2020 period as opposed to 8.8% of bank credit (Table 1). Figure 5 below shows the evolution of institutional credit (i.e. credit from banks and NBFCs) over the last decade. Note that in this chart the NBFC credit is net of only bank credit and not net of bond issuances by NBFCs which was the case in Figure 1. Between FY 2015 and FY 2020, the share of NBFCs and HFCs (housing finance companies) in institutional credit (i.e. credit from banks and non-bank financial institutions) increased from 20% to 27%, net of bank credit. This implies that some part of the shortfall in credit from the banking sector was compensated by flows of credit from NBFCs.

Figure 5: Evolution of institutional credit, 2011-2022

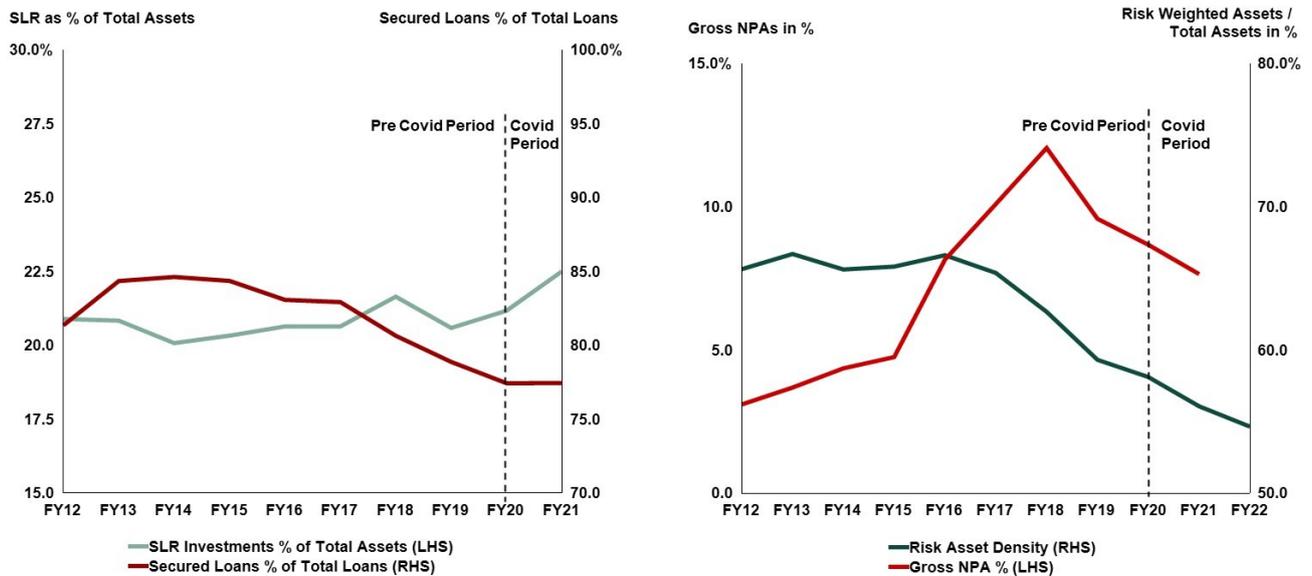


Source: RBI, authors' calculations

2.3. Analysing the pre-pandemic trends

It is important to understand the factors contributing to the changing trends and patterns in India's credit landscape in the pre-pandemic period as this would help us get a better understanding of the impact of the pandemic and also the road ahead for the financial sector.

Figure 6: NPAs and Risk aversion in the banking sector



Source: RBI, bank disclosures, authors' computations

One of the most critical events in this period was the twin-balance sheet (TBS) crisis which manifested in the form of burgeoning non-performing assets (NPAs) on bank balance sheets,

especially for the inadequately capitalised public sector banks (Government of India 2017; Sengupta and Vardhan, 2017, 2019), combined with over-leveraged and financially stressed firms in the private corporate sector. The balance sheet problems in both the banking sector and the private corporate sector became apparent particularly from 2014 onwards and peaked in 2018 when gross NPAs reached a level of almost 14% of total loans (Figure 6, right panel). The rise in NPAs as a share of gross advances was particularly acute for the PSBs.

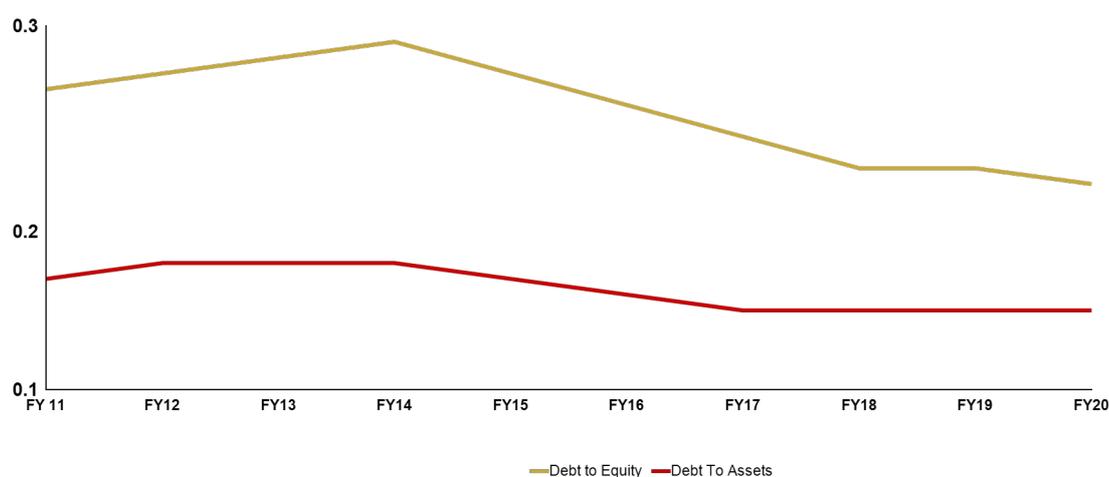
This triggered the introduction of the asset quality review (AQR) by RBI in 2016, which forced the banks to recognise stressed assets on their books. The AQR was applicable to both private banks and PSBs. The banking sector's response to the bad-loans crisis and to the actions taken by the government and the RBI to address the crisis was to avoid risks (Sengupta and Vardhan, 2020a). The net result of the rise in risk aversion was a decline in the risk asset density which is the ratio of risk weighted assets to total assets of the banking system. This is depicted in Figure 6, right panel. This ratio which was 65% until 2016 dropped below 55% by 2020.

The heightened risk aversion was also reflected in rising share of investments in safe government securities (called the Statutory Liquidity Ratio or SLR investments) and elevated levels of 'secured' credit (Figure 6, left panel). Against the regulatory requirement of 18% banks' investment in SLR securities increased from about 20% to more than 22% of net time and demand liabilities (NDTL) between 2016 and 2022.

Alongside the bank NPA problem, corporate balance sheets were also stressed. Credit Suisse reported that by early 2017, around 40% of the corporate debt monitored by it was owed by companies that had an interest coverage ratio of less than 1; they did not earn enough to pay the interest obligations on their loans. The balance sheet stress faced by the private corporate sector resulted in a collapse of demand for credit, both for capacity expansion as well as for working capital requirements.

In fact, the pre-pandemic period witnessed a remarkable deleveraging trend among Indian firms. Large companies systematically reduced their leverage. Figure 7 below presents key leverage ratios for the top 200 non-financial firms by market capitalisation for the period of 2011 to 2020. It shows that leverage measured as ratio of debt to equity and debt to total assets declined in this period. The decline is especially sharp after 2015 which is also when the RBI's AQR took place and NPA ratios in the banking sector skyrocketed (Vardhan, 2021).

Figure 7: De-leveraging of large corporations



Source: Prowess database of CMIE, authors' calculation

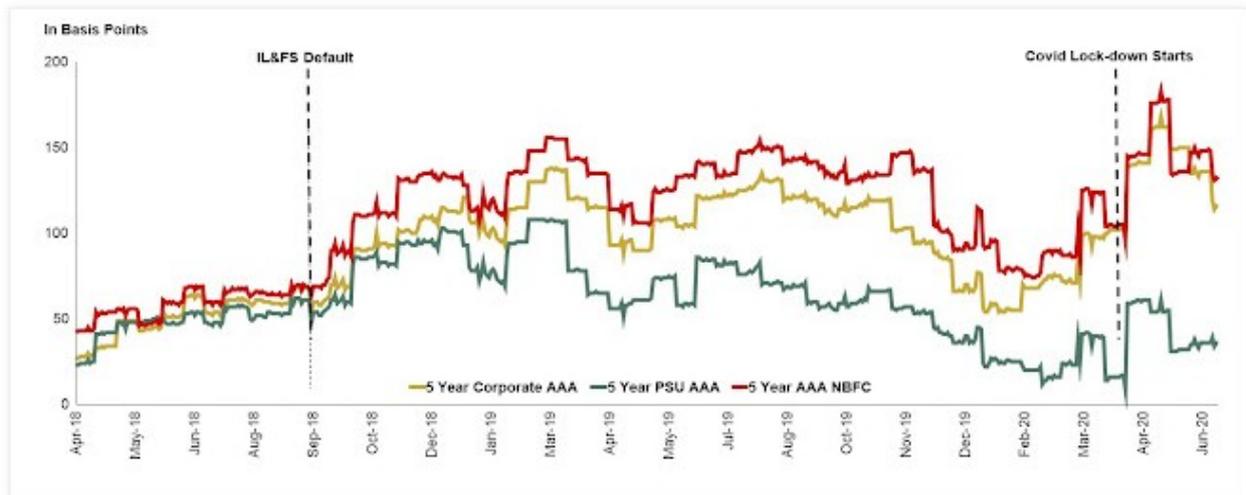
In summary, the TBS crisis had multiple repercussions for the overall credit landscape of the Indian economy during the pre-pandemic period. It led to the drastic decline in the share of industrial credit in total bank credit as shown earlier in Figure 3, which was a combined result of heightened risk aversion in the banking system and deleveraging by the non-financial firms. The crisis was also largely responsible for the overall decline, both in the share of the banking sector in total credit (Figure 1) and in the growth rate of total bank credit (Table 1) in the second half of the pre-pandemic decade. Among other factors explained in Sengupta and Vardhan (2021), this also helps explain the dramatic increase in the share of retail bank credit especially from 2015 onward.

Moreover, as the banking sector started reporting high levels of NPAs, the bond market emerged as an alternative to the banking sector especially for the top-rated firms. This trend also gets reflected in the numbers shown in Figure 1 and Table 1. As mentioned earlier, the NBFCs stepped in as well to fill up the gap created by the withdrawal of commercial banks from the corporate credit landscape. The rise of the NBFCs was further aided by the emergence of mutual funds as important players in the Indian financial landscape, yet another notable development during this period (Sengupta et al, 2022).

As the NPA crisis began plateauing out, the financial system faced another blow when a large NBFC, IL&FS (Infrastructure Leasing & Financial Services) defaulted on its debts in September 2018. This sent shockwaves through the banking system as well as the debt markets - the two biggest funding sources for the NBFC sector. This was followed by other relatively low-impact shocks due to problems in NBFCs such as DHFL (Dewan Housing and Finance Limited) and IndiaBulls Housing Finance as well as in Yes Bank. As a result of these shocks, the risk perceptions in the bond market went up (Sengupta and Vardhan, 2020b) as shown below in Figure 8 which depicts a sharp increase in credit spreads of all financial sector bond issuers.

The most important metric for assessing risk perception in the bond market is the credit spread which is the difference between the yield of a corporate bond and of a government security of comparable maturity. Using monthly data, we look at the credit spreads of AAA rated bonds of 3 years and 5 years maturity from April 2018 to the start of the pandemic. As we see from the figure, prior to September 2018, the credit spreads on the NBFC, private corporate and PSU bonds were fairly stable.

Figure 8: Credit Spreads on 5 Year AAA Paper



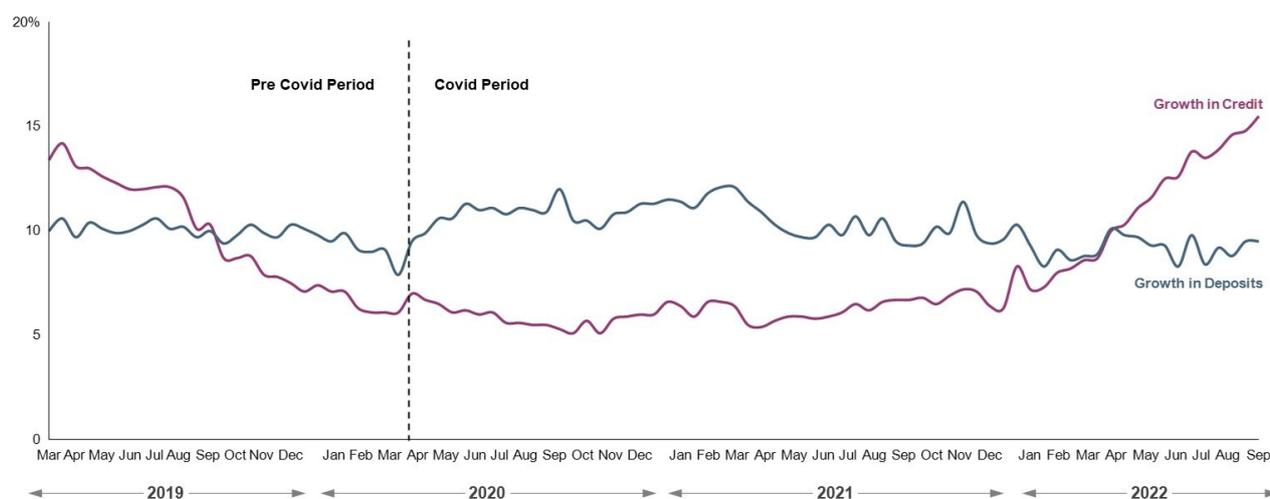
Source: Bloomberg database, authors' calculations

Between September and November 2018, in the immediate aftermath of the IL&FS default and consequent turmoil in the financial markets, the credit spreads on NBFC AAA bond of 5-year maturity nearly doubled and reached 160 basis points by February 2019. After a small dip, the spreads went back to around 140-150 basis points by July 2019 and stayed at this high level, with some fluctuations, till November 2019. During this period, crisis in other NBFCs (such as the Dewan Housing and Finance Limited (DHFL)) as well as in Yes bank, added to the overall risk perception of the bond market. This is reflected in the credit spreads remaining high one year after the IL&FS default. By February 2020, the spreads had declined to some extent from the high levels of 2018 and 2019.

While banks continued lending to the NBFCs (this is reflected in the rise of bank credit to NBFCs as shown in Figure 4 and Table 2), primarily encouraged by the RBI and the government, but this lending was limited to a handful of highly rated NBFCs.

The IL&FS episode further worsened the risk appetite of the banks and triggered risk aversion in the debt markets as well. This along with the sluggish private sector investment help explain why bank credit growth declined sharply in 2019 despite the RBI lowering the policy repo rate by 135 basis points to 5.15%--this was the lowest policy rate in nearly a decade (Figure 9).

Figure 9: Year-on-year (YoY) credit and deposit growth of the banking sector



Source: RBI, authors' calculations

3. Outbreak of Covid-19

In early 2020, even as the banking sector was recovering from the prolonged NPA crisis and the bond market was recovering from the shock of the IL&FS default followed by crises in DHFL and Yes Bank, the Indian economy got hit by an unprecedented shock in the form of the Covid-19 pandemic which rapidly engulfed the world in a health crisis. By the time Covid-19 began spreading in India, not only was the financial sector reeling under heightened risk aversion, but bank credit growth fallen below 7%, as shown in Figure 11. The pandemic hit the country also at a time when the overall economy was weakening (Dev and Sengupta, 2020).

Steps adopted by governments all over the world to restrict the spread of Covid inflicted massive damage to their economies. In the case of India, the government announced one of the most stringent nationwide lockdowns on March 24, 2020 as a result of which all manner of economic activity came to an abrupt halt and stayed so for at least the next 2-3 months. Subsequent data showed that in the April-June, 2020 quarter the Indian economy contracted by more than 20%, recording one of the deepest recessions in the world. In an economy already slowing down since 2018, this was the worst contraction since the 1970s (Dev and Sengupta, 2020, 2022). In this section, we analyse the impact of the pandemic on the general credit environment during the period FY2021 and FY2022 and on the banking sector in particular.

3.1 Credit landscape during pandemic

Table 3 below describes the growth rate (CAGR) of credit across the major sources for the two years of the pandemic, FY2021 and FY2022 and also for the pre-pandemic period and the full sample period, FY2011 to FY2022. We see that during the first year of the

pandemic, credit growth from all sources slowed down. Bank credit growth almost halved from a CAGR of 11.3% in the previous decade to 5.6% -- the lowest in almost six decades. It recovered to 8.6% in the second year of the pandemic. Also drastic was the decline in credit growth from NBFCs, from 25.5% to 15.1% in the first year followed by a contraction in the second year. The NBFCs were already struggling in the pre-pandemic period as discussed earlier and the pandemic was yet another massive blow to their balance sheets.

While bond market credit grew at a steady rate of 11% during the pandemic, the commercial paper market collapsed in the second year, registering a contraction. We see from Figure 8 above that credit spreads in the bond market began rising sharply from the middle of March 2020, once again reflecting growing risk perceptions. The figure highlights the increase in the spreads around the time when the nationwide lockdown was announced on 24 March.

For both NBFC and corporate bonds, the spreads rose by about 30-40 basis points between February 2020 and April 2020. For both categories of bonds the credit spreads reached their peak in the first half of May, close to 180 basis points for NBFCs and 170 basis points for the corporate bonds. The peak of the credit spreads during the first wave of the pandemic was higher than the peak reached in the aftermath of the IL&FS default episode.

Finally, external commercial borrowing by firms recorded a contraction in FY2021 and thereafter recovered to some extent in FY2022. Thus, during the pandemic, credit from the bond market grew at a faster pace than bank credit. By FY2022, overall credit growth had increased from 6% to 8.2%, but was still lower than the CAGR of the previous decade.

Table 3: Growth (CAGR) of credit across sources, 2011-2022

Source	2011-2020	2020-2021	2021-2022	2011-2022
Bonds	15.5%	11.0%	11.2%	14.7%
Banks	11.3%	5.6%	8.6%	10.6%
NBFCs	25.5%	15.1%	-9.7%	20.9%
CPs	17.6%	5.8%	-3.3%	14.4%
ECB	15.6%	-3.6%	7.6%	13.0%
Total	12.9%	6.0%	8.2%	11.8%

Source: RBI, author's computations

In terms of the shares of the various credit sources, we see from Figure 1 that the share of banks in total credit continued to be 64%, share of the bond market marginally increased to 22% by FY2022, while shares of NBFCs, CPs and ECBs remained steady compared to the pre-pandemic period.

In Table 4 we focus exclusively on the banking sector and analyse the growth patterns across the various borrower segments. During the pandemic while growth of bank credit to agriculture remained steady at 9-10%, credit to large industry shrank and recovered only marginally by FY2022. Credit to NBFCs also declined. The pre-pandemic consumerisation of credit trend came under pressure during this time with average consumer credit growth falling to 10-11% from a CAGR of 16% in the pre-pandemic decade.

However, though the growth of consumer credit slowed down, it continued to outpace the growth of industrial credit, especially when we take into account credit to the large firms. This shows that the trend of consumerisation of bank credit continued during the pandemic as well. Most notably, bank credit to MSMEs grew rapidly at 16.6% in FY2021 and almost by 30% in FY2022 compared to the lacklustre growth of 4% in the previous decade.

Table 4: Segment wise bank credit growth, 2011-2022

Segment	2011-2020	2020-2021	2021-2022	2011-2022
Agriculture	10.9%	10.6%	9.4%	10.7%
Large Industry	7.7%	-3.8%	0.7%	6.0%
MSME	4.0%	16.6%	29.1%	7.1%
Service ex NBFCs	10.7%	3.8%	8.0%	9.8%
NBFCs	20.3%	2.4%	9.7%	17.5%
Personal Housing	16.2%	10.8%	11.5%	15.2%
Other Personal	16.6%	12.3%	11.5%	15.7%
Total	11.3%	5.4%	8.8%	10.5%

Source: RBI, authors' calculations

In terms of shares of the various borrowing segments, we see from Figure 4 that the share of large industry declined from 26% in FY2020 to 22% by FY2022 and while MSME credit grew dramatically, their share more or less remained constant at 5-6% compared to the pre-pandemic period. Interestingly, while the growth of consumer credit slowed down during the pandemic, the share went up from 28% in FY2020 to 30% in FY2022.

It is worth noting that by the second year of the pandemic, the health of the banking sector had improved substantially compared to the pre-pandemic period when banks had been struggling to resolve NPAs. This improvement in banks' financials has primarily come about due to multiple rounds of capital infusion in public sector banks by the government, resolution of bad assets by the Insolvency and Bankruptcy Code (IBC), and also due to the decline in credit growth rate that we have discussed at length in the previous sections.

Two key indicators demonstrate the banking system's progress. Successive waves of recapitalization by the government gave the PSBs enough resources to write off most of their bad loans. As a result, they have been able to bring down their gross NPAs from 11% of total advances in FY 2018 to 5.9% in FY 2022. NPAs for industrial credit have been reduced even more dramatically, from 23% to 8.4%. Even after these large write-offs, most banks retain comfortable levels of capital. Undoubtedly this is a significant achievement, considering the stress of the previous decade, the shock of the pandemic and the associated slowdown of the economy.

3.2. Policy actions during pandemic

In this section we analyse the credit patterns revealed in Tables 3 and 4. In order to help mitigate the adverse impact of the pandemic on the economy, the government and the RBI announced a slew of policy actions. These actions were predominantly channelised through the banking sector, this being the most important financial intermediary in the Indian economy. For example, the Indian banking served as the conduit of nearly 70% of the fiscal stimulus announced by the central government to address the economic challenge presented by the pandemic.

In addition, there were several important regulatory and legal actions that had a direct impact on banks, including the year-long suspension of the insolvency and bankruptcy code (IBC) ordered by the Supreme Court, imposition of a moratorium on the recognition of non-performing loans, launch of a credit guarantee scheme for MSME borrowers, and a loan restructuring package for banks announced by RBI.

In the immediate aftermath of the lockdown announcement of March 24, 2020, the RBI announced a sharp reduction in policy rates, release of huge liquidity into the banking system through unconventional monetary policy measures such as the TLTRO (Targeted long term repo operations) and also a six-month moratorium on loan repayments (Dev and Sengupta, 2020; Sengupta and Vardhan, 2020c; Felman and Sengupta, 2020). The RBI expanded its balance sheet substantially during the two years of the pandemic. From Rs 50 trillion in March 2020, the total balance sheet of the RBI expanded to Rs 64 trillion by December 2021 and then declined slightly to Rs 62 Trillion March 2022. The RBI also injected a massive amount of liquidity into the banking system which reached a level of Rs 13 trillion by March 2022. As a result, the long term (10 year) bond yields in the GSec market remained more or less capped at 6% throughout the pandemic.

The government on the other hand mostly announced policy actions to support the low income segments of the population worst affected by the pandemic, as opposed to announcing large fiscal stimulus measures unlike the US or European governments. Among other measures, the Indian government announced collateral-free bank loans of up to Rs. 3

trillion to MSMEs with 100% credit guarantee (called the Extended Credit Line Guarantee Scheme or ECLGS Scheme).

The objective of the policy actions announced by the RBI was primarily to enhance credit flow in the economy, to extend financing to firms to enable them to stay solvent amidst the massive disruptions caused by the pandemic and also to provide temporary relief to the stressed borrowers. However, it is debatable whether these actions had much of the intended impact. This is because, while the policy rate cuts arguably relieved the debt-servicing burden of the stressed firms to some extent and hence, eased the pressure on the banks, risk-averse banks were reluctant to lend despite the rate cuts and liquidity injection as seen from the lacklustre growth of bank credit during the pandemic (Table 3). Part of this credit decline was also because of a slump in credit demand given the widespread fall in economic activity during the pandemic. In fact, instead of increasing lending, the banks used much of the liquidity injected by the RBI either to buy bonds of large corporations or safe assets such as government securities (GSecs).

The RBI also launched Targeted Long Term Repo operations (TLTRO) where banks could provide collateral of their GSecs holding to raise long term (3 years) funding with which they could buy high rated corporate bonds. This was done in order to facilitate credit flow to the corporate bond market. Arguably this led to bond market credit growth outpacing bank credit during the pandemic as shown in Table 3 above.

The credit guarantee scheme (ECLGS) announced by the government for the MSMEs was a step in the right direction. Given the heightened risk aversion in the banking system, the government stepped in to bear some of the credit risk, so that banks could focus on what they are good at, which is, allocating capital. This resulted in a phenomenal increase in the growth of bank credit to MSMEs as shown in Table 4. In a way this also underscores the extent of risk aversion in the banking sector because it implies that banks were willing to lend only when the government backstopped the loans. And this was despite the RBI lowering the policy repo rate to 4%, the lowest level in more than two decades.

In summary, the pandemic amplified some of the trends of the previous decade such as decline in bank credit especially to the large industry, continued pre-existing trends such as consumerisation of credit and to some extent reversed some trends as manifested in the remarkable growth of credit to the MSME sector.

3.3. Epilogue: Credit in FY2023

Since February 2022 the recovery of the Indian economy from the pandemic has been disrupted by multiple other shocks even as the pandemic has gradually subsided and become mostly endemic (Dev and Sengupta, 2022). Towards the end of February 2022, Russia invaded Ukraine and itself became the subject of numerous economic sanctions imposed by the US and other Western countries. The war and associated sanctions dealt a huge blow to

the global supply chains of various crucial commodities such as crude oil, natural gas, edible oils, fertilisers, wheat etc. Already the pandemic had disrupted supply chains across countries and the war further aggravated this problem. It led to escalation in the prices of many commodities as supplies began winding. Most notably, price of crude oil shot up which was an adverse shock for India because India is a major importer of crude oil.

The supply shocks combined with the demand stimulus provided by the developed country government and central banks triggered a rapid rise in global inflation. India was no exception to this. Consumer price index (CPI) inflation exceeded the RBI's 6% upper threshold of the inflation targeting band for three quarters in a row in the January-September, 2022 period. Central banks in developed countries responded to the highest inflation in four decades by tightening monetary policy at the fastest pace ever. In India the RBI too exited the easy monetary policy, and began raising the policy repo rate from May 2022 onwards. By December 2022 the repo rate has been increased by 225 basis points.

This rate hike is now slowly getting transmitted through the credit system. Banks have already passed on roughly 100 basis points by increasing their lending rates. However, in spite of the increase in interest rates, credit growth has seen a sharp upturn in FY2023. Currently the bank credit growth is at about 18% and bond market issuances also remain strong. Deposit growth, on the other hand, has remain muted at slightly below 10%.

The strong credit growth seems primarily driven by growth in unsecured consumer credit as well as home loans. Growth of credit to MSMEs remains strong on the back of the ECLGS scheme which has been extended by the government. There is also some uptick in credit demand due to capital expenditure in sectors such as renewable energy, logistics, etc. Government expenditure on infrastructure such as roads is creating demand for credit from EPC contractors and construction companies. Meanwhile, much of the lending to private industry has been in the form of working capital loans, necessitated by the increase in commodity prices, which has led to a sharp rise in the cost of holding inventories.

However, despite an improvement in banks' financial health, lending to large industries has been stagnant in nominal terms during the last two years, implying that it has declined sharply in real terms. There has also been little lending for private sector investment. Over the last one year, bank lending to infrastructure has grown by 9% up from 3% in FY2020, but this has been fuelled mainly by public sector capital expenditure. This is primarily because there are no signs yet of a revival of private investment which has been sluggish for nearly a decade.

The current differential growth in deposit and credit is also creating a liquidity challenge for banks. Between April and August 2022, incremental bank credit exceeded incremental bank deposits by a staggering Rs 40,000 crore. This is only the fourth time in last 25 years that such a large differential has emerged. Lack of adequate deposit growth may start imposing a

limit on credit growth in the next few quarters, unless banks start increasing their deposit rates to attract more funds. At the same time the monetary contraction that is being implemented by the RBI to tackle inflation might also eventually dampen credit growth. To what extent the credit growth would decline and what impact the decline would have on economic output remains to be seen.

4. The road ahead: Opportunities and Challenges

In the medium term the Indian economy will endeavour to fully recover from the long-lasting repercussions of the Covid-19 pandemic. It will also need to gear up to face renewed challenges in the form of an adverse global economic environment characterised by deep concerns about recessions in the developed countries triggered by the aggressive monetary policy tightening by the respective central banks. In this context, it is worth pondering about the opportunities and challenges confronted by the Indian financial sector. Indeed, the evolution of the credit landscape in India as discussed in the sections above raises several issues, as outlined below.

Low credit growth: Historically in the Indian economy, credit has grown faster than GDP. The ratio of nominal credit growth to nominal GDP growth for the 60-year period from 1950 to 2020 was about 1.4. This means that credit has grown at a rate which is 1.4 times higher than the rate of growth of nominal GDP. However, total commercial credit in India in the decade from 2012 to 2022 grew at a CAGR of 11% that was only slightly higher than the nominal GDP CAGR of 10.4%. This implies that the growth of credit in the last decade has been significantly lower than the long-term rate. In fact, annual incremental credit measured as a percentage of nominal GDP collapsed from around 14% at the beginning of the decade to below 5% (Vardhan, 2021).

The relationship between credit growth and GDP growth goes, perhaps, both ways. Last decade, especially in the second half, witnessed a complete collapse of private sector investments which may, at least partially, explain the collapse of credit. Credit to industry, both large and MSME, dragged down the overall credit growth.

For Indian GDP to regain a path of strong and sustainable growth, credit growth will have to be much stronger than it has been in the last decade. Historically, Indian credit has been driven by long-term borrowing for the purpose of building industrial capacity. It may be argued that as the composition of the Indian GDP mix has skewed towards services that now contribute to more than 50% of the GDP, capital intensity of the Indian economy has gone down. This may imply that the economy now needs less capital.

However, given the stage of development that the Indian economy is in, it will need continued (private) capital investment in industrial capacity and infrastructure for which credit growth will have to pick up.

In addition to the growth of credit demand triggered by a revival of the capital expenditure cycle, some of the current impediments to credit supply will have to be removed as well in order to achieve a sustainable higher level of credit growth. These include among other things, resolving the problem of heightened risk aversion in the banking sector, developing a deeper and more liquid corporate bond market, and encouraging a larger share of foreign debt capital infusion. Each of these areas will require specific policy initiatives.

Rise of the bond market: The last decade saw the share of bonds in the overall non-government credit going up from 14% to 22%. Growth rate of credit through bonds outpaced credit from banks. This is a welcome trend. Slowly and steadily the bond market is becoming an important contributor to the supply of credit in India especially for the larger, highly rated firms. There are several implications of this trend:

- **Less bank-centric credit system:** Rise of the share of the bond market would arguably make the Indian financial system much less bank centric. It would result in better distribution of credit risk in the economy instead of the risk being concentrated in the banking system.
- **Larger role for SEBI:** The bond market is under SEBI's (Securities and Exchange Board of India) oversight. Hence, with a growing share of the bond market, a larger share of credit in India would fall under the regulatory oversight of SEBI. Historically, credit oversight has primarily been the responsibility of the RBI which regulates and supervises banking, ECB, and even commercial papers. As the share of the bond market continues to grow, there will need to be better harmonisation of the regulatory approaches of SEBI and RBI.
- **Persistent skew in the bond market:** While the overall share of bonds has increased, bond market continues to be highly skewed and accessible only to large, established, highly rated (low perceived credit risk) firms. Over 85% of bonds issued are rated AA and above. It is important to keep in mind that the median rating of a bank loan in India is BBB. On the other hand, bonds rated BBB and A, which are technically 'investment grade', find very few takers in the bond market. Further, issuances are dominated by several government owned enterprises (such as Power Finance Corporation, Rural Electrification Corporation, National Highway Authority among others) that are seen by bond market investors as 'near sovereign' risk in the absence of any formal or explicit government guarantee. Credit spreads for these bonds are generally somewhat lower than the comparably rated private sector issuers.

This tacit government guarantee on these bonds gives them a pricing advantage and perhaps results in some crowding out of private sector issuers.

- **Secondary market illiquidity:** While primary market issuances of bonds have maintained a strong trajectory over the last decade, secondary market is still highly illiquid. With over Rs 40 trillion outstanding bonds, daily trading volume rarely goes beyond Rs 10,000 cr. Further, secondary market trading is limited to a small set of bonds (what the market terms as ‘liquids’). This lack of liquidity in the secondary market implies that for a vast majority of bonds, frequent price discovery is absent. An extreme example of this effect was witnessed in the IL&FS episode when the bonds issued by IL&FS, that were almost completely illiquid, were downgraded from AAA to D, almost overnight, leaving many investors stranded. One reason for this high level of illiquidity is that the dominant investment pools in the bond market - insurers and pension funds - are ‘buy and hold’ investors who do not normally trade in bonds.
- **Shorter-maturity bonds:** Bonds issued in India are predominantly (over 90%) of less than 5-years maturity. A small fraction of bonds that are issued with longer maturity, often have embedded call options that are inevitably exercised. This means that the bond market presently does not provide long term credit.

Bond market in India, thus, overwhelmingly prefers relatively shorter maturity and highly rated papers. This implies that credit for infrastructure which by its very nature is long term and, in most cases, higher risk, will be hard to come by unless there are explicit credit enhancement and market making mechanisms in place.

Rise of the credit AIFs: An interesting trend visible in the last five years or so, is the increasing amount of capital invested in bonds through the credit alternative investment funds (AIFs) which under the SEBI nomenclature are called AIF category II. This signals the emergence of a private credit market in India. While the exact assets under management (AuM) of credit AIFs are not publicly available, they are estimated to be about Rs 1 to 1.5 trillion. Despite being a small percentage of the total credit, they are performing a very important role in widening the issuer base of bonds. By nature these funds seek higher returns and hence higher risk. A majority of them invest in bonds that are right above or below the investment grade. Thus, these funds invest in bonds ranging from A to B credit rating. The investors in these bonds are ‘qualified’ in the sense that they have to abide by the minimum investment corpus (currently at Rs 25 lakhs) prescribed by SEBI to qualify as an investor. It is assumed that such high value investors will be ‘informed’ and hence able to take on the risk inherent in these investments. High net-worth individuals, family offices, corporate treasuries, etc are the most common investors. Increasingly foreign portfolio investors such as the Canadian pension funds have also invested in these AIFs.

While these funds are performing a critical role of developing the lower rated bond market, they also present a different kind of regulatory challenge. An analogue of these funds in China are the so called ‘trust companies’ which grew very rapidly on the back of investments in high yielding high risk debt (majority of it issued by real estate developers) but in recent times, with the bursting of the credit bubble, have presented a challenge to the regulators. Credit AIFs in India are quite small in size today and hence they have not yet attracted enough regulatory attention. In fact, they get clubbed in the AIF Category II along with private equity funds and their corpus is not separately reported. Regulators will have to encourage the development of these funds so that the bond market becomes deeper. At the same time, risks arising from this market will need to be better understood, monitored and managed through norms on governance, reporting and disclosures, etc.

Role of NBFCs and FinTechs: The last decade witnessed a dramatic rise in the role of NBFCs as providers of institutional credit in India. This was partly due to the turmoil that the banking sector went through as a consequence of the TBS crisis and the regulatory actions (AQR) in response. Deepening of the bond market on the other hand helped the NBFCs, at least the larger ones, to access funding.

In 2022 the RBI, which also regulates NBFCs, changed its regulatory approach; it now has a size based tiered classification of NBFCs. The largest NBFCs are called the top layer and have far more stringent regulatory oversight compared to the other relatively smaller ones. In fact, the top layer NBFC regulations are now similar to those for commercial banks and include liquidity ratio, approvals for appointment of CEOs, etc akin to banks. RBI has made its preference clear that it expects some of these large NBFCs to eventually become commercial banks. This might diminish some of the intrinsic benefits the NBFCs introduced in the Indian credit landscape (Sengupta et al, 2022).

In the last couple of years, technology led financial firms (or FinTechs) have also seen a phenomenal growth in India. Lockdowns and isolation imposed by the pandemic gave a boost to these firms as they could offer customers remote services. While they have made the greatest impact in the payments space, increasingly Fintechs are entering lending businesses too. RBI recently tightened the regulations on the so called Buy Now Pay Later (BNPL) business which was unsecured lending done mostly by Fintechs. It has also formalised regulations regarding co-lending partnerships between Fintechs / NBFCs and commercial banks where the Fintech / NBFCs can originate credit business which would be jointly done by them with a commercial bank in a pre-agreed ratio.

It is unclear how these developments will impact the credit landscape in the long run. In the medium term we may see NBFC credit growth slowing down. We may also see a large number of co-lending partnerships emerge between NBFCs / FinTechs and commercial banks.

Inadequate credit access: Despite the growth and broadening of credit in India, several segments of borrowers continue to lack adequate access to credit. Credit to agriculture and MSMEs is especially scarce. The only source of credit to these segments is the banking system. The share of credit to agriculture has remained almost flat at around 12% for a long time. Owing to the priority sector lending obligations, banks are mandated to divert 12% of their loans to agriculture. If agriculture productivity is to improve, investments will be needed which in turn will require greater availability of credit.

Similarly, MSMEs are chronically credit starved. Credit to MSMEs in the second half of the last decade was stagnant until 2020. As discussed earlier, the credit guarantee scheme launched by the government during pandemic triggered a phenomenal growth of bank credit to these MSMEs by FY2022. This highlights the need for a permanent credit guarantee or a credit enhancement setup that the government could establish in order to ensure, with appropriate checks and balances, better availability of credit to this segment.

Consumerisation of credit: As noted earlier in Section 2, a noteworthy trend in the Indian credit landscape over the last decade, even before the pandemic hit the Indian economy was the consistent rise of consumer credit. It went up from 23% of total credit to about 34% entirely on the back of growth of bank and NBFC consumer credit. Of the total consumer credit of about Rs 60 trillion today, about 50% is for housing (or secured) and the other half is 'other' consumer credit which includes vehicle loans, personal loans, and credit card receivables (quasi secured or unsecured). The rise of consumer credit is attributed to several factors including demographic (coming of age of the millennials) and economic changes (crossing the \$2000 per capital income levels) and also due to institutional factors such as the widening coverage of credit bureaus (Sengupta and Vardhan, 2021). One can also argue that the skew towards consumer credit, especially, in the second half of the last decade reflects the risk aversion that developed in the banking system post the NPA crisis, as described earlier.

Consumer lending by banks began around 2000 and since then India has not witnessed a consumer credit bust yet. The growth of unsecured consumer credit at over 20% for the last few years increases the likelihood of such consumer credit getting into trouble. It is important to note that India does not have a well defined and modern legal framework to deal with bankruptcy of individuals. This is a segment that the banking regulator will need to monitor with great care especially as the demand of industrial and business credit picks up.

5. Conclusion

The Covid-19 pandemic hit the Indian economy at a time when the financial sector, and in particular the banking sector was dealing with secularly declining credit growth due to heightened risk aversion in banks as well as in large (commercial) borrowers after years of a

series of balance sheet crises. The pandemic which was an unprecedented shock to the economy in general, dealt a further blow to credit growth and arguably worsened the risk aversion of the financial sector. Two years later while credit growth has improved to some extent, and balance sheets have become healthier both due to deleveraging of firms and the absence of strong credit growth, new challenges have cropped up as the global economic environment turns adverse and also given the structural changes the financial sector has been undergoing over the last decade.

The net effect of all the trends we describe in this paper has been a steady reconfiguration of the Indian credit landscape. From being an overwhelmingly bank centric system, steadily the supply of credit is getting diversified. Large, high rated borrowers have migrated to the bond market to source their credit requirements either through bonds or commercial papers. At the lower end of the rating curve, credit AIFs and to some extent NBFCs (including microfinance companies) are becoming dominant. Banks are getting squeezed into the mid rated corporate borrowers (BBB to A rated) and consumer lending.

While this reconfiguration has a positive aspect of better distribution of risks across savers and investors, it also poses regulatory and policy challenges of ensuring that all segments of the economy have equitable and adequate access to credit and the systemic risk arising from such reconfiguration is contained. In the coming years, these are some of the challenges that the financial sector regulators and the policy makers will have to grapple with.

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