

RESERVE BANK OF INDIA
BULLETIN



MARCH 2022

VOLUME LXXVI NUMBER 3

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SPEECHES

Monetary Policy and Central Bank Communication
Shri Shaktikanta Das

Cryptocurrencies – An assessment
Shri T Rabi Sankar

Monetary Policy and Central Bank Communication *

Shaktikanta Das

I am happy to have been invited by the National Defence College (NDC) to share some of my thoughts with the participants of the 62nd NDC course on National Security and Strategic Studies. The NDC has earned a reputation for being a centre of excellence in the study and practice of National Security and Strategy. It is good to see a mix of officers of Armed Forces and Civil Services from India as well as from other countries who are participating in this course. In my experience, these inter-disciplinary and cross-country gatherings, as in your case, provide the best opportunities for learning and evolution of ideas.

Central banks remain at the heart of modern monetary and financial systems. They have several instruments at their disposal to carry out their wide-ranging mandate which includes monetary policy as the prime tool to achieve macroeconomic stability. In this process, central banks through their monetary policy operations influence longer-term interest rates, overall economic activity and ultimately, prices. They aim to achieve price stability (low and stable inflation) over a period of time while minimising fluctuations in output and employment. Over time, the functions and priorities of central banks have evolved in-line with domestic and global economic and financial developments and the prevailing political-economic discourse. Yet, fostering monetary and financial stability has always remained the most important policy anchor of a central bank in its pursuit of achieving maximum sustainable levels of output in the economy. This is aptly reflected in the Preamble

* Address by Shri Shaktikanta Das, Governor, Reserve Bank of India - March 4, 2022 - Delivered at the National Defence College, Ministry of Defence, Government of India, New Delhi.

to the Reserve Bank of India Act, 1934 that describes the broad mandate of the Reserve Bank as follows:

"it is expedient to constitute a Reserve Bank for India to regulate the issue of Bank notes and keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage".

In my talk today, I shall focus on the evolution of ideas that shaped Indian monetary policy. Monetary policy is not merely a science where we tweak some instrument to achieve an objective. It is also an art of creating new instruments and taking policy calls in response to anticipated and evolving challenges and communicating them with prescience and clarity, especially during crisis times. Decisiveness, timing and communication are key to effective monetary policy. In my address today, I propose to dwell upon aspects of monetary policy and central bank communication.

Evolution of Monetary Policy in India

Early Phase

The evolution of the Reserve Bank's monetary policy framework has closely tracked economic and financial development of our country. After independence, India pursued a policy of planned economic development. Monetary policy, therefore, largely focused on expanding the availability and access to credit for the development needs of the economy. This was followed by mounting inflationary concerns in the 1960s and 1970s on account of deficit financing, frequent supply shocks in agricultural sector, global oil price shocks of 1973 and 1979, and the collapse of the Bretton Woods system in 1973¹.

¹ The Bretton Woods system – following the United Nations Bretton Woods Conference in New Hampshire, United States in 1944 – refers to the system of semi-fixed exchange rates and controlled capital flows that was adopted by countries after World War II to promote international economic cooperation and avoid repeating the competitive currency devaluations that contributed to the Great Depression of the 1930s.

During these times, inflation control was largely based on price controls by the Government and selective credit controls and moral suasion by the Reserve Bank to restrain banks from extending credit for speculative purposes.

Monetary Targeting

Against the backdrop of high inflation amidst rising fiscal dominance, a rule-based monetary targeting framework was adopted on the recommendations of the Sukhamoy Chakravarty Committee (1985). In this framework, reserve money was used as the operating target while broad money served as the intermediate target for controlling inflation by regulating monetary expansion consistent with inflation and growth objectives². Nonetheless, due to continued expansionary fiscal policy, both the statutory liquidity ratio (SLR) and the cash reserve ratio (CRR) had to be progressively increased in the 1980s to reach their peak levels by the early 1990s³. The pre-emption of resources through CRR and SLR reduced the space for meeting the credit requirements of the economy. In the wake of trade and financial sector reforms in the early 1990s and the consequent rise in foreign capital flows, financial innovations and a notable shift towards market-based financing, the monetary targeting framework that rested on the assumption of a stable relationship between money, output and prices came under scrutiny towards the later part of the 1990s.

² Reserve money refers to the primary liquidity created by the Reserve Bank, and this forms the basis of the subsequent credit creation by banks in the country. Reserve money is defined as the sum of currency in circulation, bank's balances with RBI and other deposits with RBI (in other words, liabilities of the RBI). Money supply in the economy is the liability of the banking system (commercial as well as cooperative bank and RBI) and is defined as currency with the public, their demand and time deposits with banks and other deposits with RBI.

³ While SLR was hiked to preempt greater resources for the government for financing higher borrowing requirements, unfettered government spending posed inflation challenges which were managed through CRR increases.

Multiple Indicators Approach

With questions on the efficacy of the prevalent monetary targeting framework, the Reserve Bank of India adopted multiple indicators (MI) approach in April 1998⁴. In the MI approach, there was a greater emphasis on interest rate *vis-à-vis* quantity channels (money supply) for monetary policy formulation. Interest rates in different markets (money, capital and government securities markets) along with high-frequency data on currency, credit extended by banks and financial institutions, fiscal position, trade, capital flows, inflation rate, exchange rate, among others, were juxtaposed with output data for drawing policy perspectives. In other words, policy emphasis shifted to price of credit (*i.e.*, interest rate) rather than quantity of credit. Accordingly, short-term interest rates became key instruments in signalling the monetary policy stance of the RBI. The liquidity operations of the RBI were geared to align market rates with the policy stance. The MI approach served well by delivering low inflation and high growth prior to the global financial crisis.

Flexible Inflation Targeting

In the post global financial crisis (GFC) period and, particularly, after the taper tantrum episode of 2013, the credibility of the MI framework came into question as persistently high-inflation and tepid growth began to co-exist. The MI approach with its focus on a large set of indicators did not provide a clearly defined nominal anchor for monetary policy. An Expert Committee set up by the RBI to revise and strengthen the monetary policy framework, in its report submitted in January 2014, recommended that inflation, defined in terms of headline consumer price

⁴ The shift to a more market oriented monetary policy framework also brought about institutional changes as the department handling monetary policy in the Reserve Bank was re-designated as Monetary Policy Department effective January 1, 1998 from the erstwhile Credit Planning Cell.

index (CPI) inflation – CPI-Combined – should be the nominal anchor for monetary policy. India formally adopted flexible inflation targeting (FIT) with the amendment of the RBI Act in June 2016. The amended Act states the role of the RBI in monetary policy as follows: “the primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth”.

The amended Act also explicitly recognised that it is essential to have a monetary policy framework to meet the challenges of an increasingly complex economy and that the monetary policy framework shall be operated by the Reserve Bank of India. Price stability under the statute has been defined numerically by a target of 4 per cent for headline CPI with a tolerance band of +/- 2 per cent around it. The flexibility in the FIT regime comes from provisions to accommodate or see-through transitory supply-side shocks to inflation. Failure to meet the monetary policy objective is defined in terms of average headline CPI inflation remaining lower or higher than the 2 to 6 per cent band for three consecutive quarters, rather than any instance where inflation exceeds / falls below the target. This helps monetary policy to avoid undue volatility in rate setting behaviour that may adversely impact growth. The repo rate was defined as the policy rate and a monetary policy committee (MPC) was set up in the RBI – with both internal and external members – to determine the repo rate with the objective of achieving the mandated inflation target. The MPC resolution containing the committee’s assessment and outlook on growth and inflation, including numerical projections, the repo rate decision and the rationale thereof is released immediately after the MPC meeting along with voting pattern of the members. Statements of Individual members covering their own assessment and justifications for their decision are released 14 days after the meeting in the minutes.

The clearly defined inflation target and the band, the setting up of the MPC, the explicit accountability mechanisms for defining failure in meeting the target, the detailed resolution and the quick release of individual assessments in the minutes have strengthened transparency and credibility of monetary policy formulation in India. Overall, a consensus has emerged post-GFC around a holistic approach that focused on inflation targeting as well as macro-financial stability. It is interesting to note that the central banks’ function as the lender of last resort (LOLR) has remained intact, notwithstanding the developments and refinements in the policy frameworks across countries, including India. Within the broad objectives, however, the relative emphasis on inflation, growth and financial stability has varied across both monetary policy regimes as well as in different phases of the business cycle. Although global experience – with financial stability as an added policy objective – is still evolving, the Reserve Bank has always been giving due importance to financial stability risks through active use of macro-prudential policy tools.

The FIT framework has served us well since its inception in 2016 even as the economy faced a sequence of shocks in this period. The framework’s flexibility and efficacy were tested significantly in the past couple of years as we have been grappling with the once in a century crisis, the COVID-19 pandemic. The flexible framework allowed the MPC to continue with the accommodative monetary policy stance in support of growth even as inflation intermittently touched or exceeded the upper end of the inflation band due to large supply shocks and other bottlenecks. This was facilitated through prescient communication – as FIT is essentially a forward-looking framework. Emphasis was given on communicating the rationale of policy measures and decisions with clarity which is crucial for conditioning market expectations.

Role of Communication

Global Context

Only a few decades ago, central banks were shrouded in secrecy and their work was viewed as esoteric and beyond the reach of the common people. Central banks worked in not so open or transparent manner and perhaps believed that policy traction came from surprising the market. Their communication often bordered on being delightfully vague, mystifying and remarkably opaque, often labelled as "constructive ambiguity"⁵. Who can forget the famous quote of the US Fed's former chairman Alan Greenspan: "Since I've become a central banker, I've learned to mumble with great incoherence. If I seem unduly clear to you, you must have misunderstood what I said"⁶.

In contrast, communications of central banks today are known for their clarity, precision, accountability and transparency. This change has occurred mainly because of two reasons. First, as central banks became more independent in their areas of operation, they also needed to be more transparent and accountable in a democratic set up to garner public trust. Second, central banks have increasingly used communication as an instrument of monetary policy to condition market expectations that is essential for efficient and effective transmission of monetary policy signals⁷. The behaviour of forward-looking economic agents – firms and consumers – is influenced more by their future expectations of interest rates, prices and incomes rather than just the current changes in these variables. Accordingly, central banks offer forward guidance – both implicit and explicit – to manage expectations in the economy. Thus, communication

is an extremely potent component of the toolkit of modern central banks.

Communication, however, is also a double-edged sword. During the global financial crisis, a coordinated response by the major central banks helped avert the worst effect of the crisis. Mr. Mario Draghi's declaration as the President of the European Central Bank to do "whatever it takes" to preserve the euro amidst the eurozone debt crisis of July 2012 boosted market sentiments. On the other hand, communication by the US Fed during May 2013 on its future monetary policy path triggered the taper tantrum episode of heightened global financial market volatility as markets were caught off guard by the announcement. Therefore, communication needs to be balanced and well-telegraphed to avoid unintended consequences.

The current global conditions, after about two years of living through the pandemic, are now posing complex challenges for central bank communication. A number of economies, including the major ones, are facing multi-decadal high inflation due to supply disruptions, tighter labour markets, fragility of the just in time inventory management and geo-political disturbances. Central banks are in a bind – if they act aggressively to contain inflation which may perhaps subside as normalcy returns, they run the risk of setting in recession; on the other hand, if they act too little and too late, they may be blamed for "falling behind the curve" and may have to do a lot of catching up later which will be detrimental to growth. Meanwhile, financial markets world over have turned extremely volatile as they have been left grappling with heightened uncertainty over the pace of future monetary policy normalisation. Recent geo-political developments have further aggravated the challenges and dilemmas for the central banks. Amidst these uncertainties, central banks have to find the optimal grounds with attendant communication challenges.

⁵ Greenspan, Alan. (2007) *The Age of Turbulence: Adventures in a New World*. New York: Penguin Press.

⁶ Speaking to a Subcommittee of the US Congress, November-December 1987

⁷ See, for example, Blinder *et al.* (2008), "Central Bank Communication and Monetary Policy: A Survey of Theory and Evidence", NBER Working Paper 13932

Our Recent Approach

At the Reserve Bank, we are mindful of the importance of communication given our multifarious responsibilities and wider ramifications of our actions. We have followed a consultative approach by periodically interacting with various stakeholders on policy formulation. This has particularly served us well in designing appropriate policy responses, especially during the pandemic. We believe in two-way communication for informed policy decisions. With this objective, we hold detailed interactions with analysts, economists, researchers, banks, academic bodies and research institutions, trade and industry associations, and several others. We have followed this approach not only for the much-publicised monetary policy actions but also for other policies. We also recognise that communication needs to be backed by commensurate actions to build credibility and instil wider confidence in our policies. We explain the rationale of our actions in the best traditions of accountability and transparency, the hallmark of a modern market-based approach to monetary policy making.

As part of our monetary policy, we have actively used communication through a variety of tools – the MPC resolutions and minutes, my exhaustive post-policy statements together with statement on developmental and regulatory measures, press conferences, speeches by me and my colleagues, and our other publications, especially the bi-annual Monetary Policy Report (MPR) – to anchor expectations. Our policies, especially the relative emphasis on inflation and growth are always based on an objective assessment of all relevant factors; and we make it a point to communicate our policy decisions, including through interactions with the media, to facilitate clarity in understanding. During 2019 when we embarked upon a cycle of rate cuts and change of stance from 'calibrated tightening' to 'neutral' and then to 'accommodative', the

accompanying communications were unambiguous. On various occasions, we had stated "it is vital to act decisively and in a timely manner" to support growth; "to boost aggregate demand, and in particular, private investment activity"; and similar other pronouncements to provide market guidance.

With the declaration of COVID-19 as a pandemic in March 2020, communication became more challenging as we had only digital interface with media and market participants while at the same time we had to undertake several emergency conventional and unconventional measures as the crisis unfolded. The Governor's statement of March 27, 2020 highlighted that the outbreak of the pandemic warranted not only an advancement of the date of MPC meeting, but it also merited "a sizeable reduction of 75 basis points in the policy repo rate" which was "intended to (i) mitigate the negative effects of the virus; (ii) revive growth; and above all, (iii) preserve financial stability." The statement unfurled several other measures to combat the pandemic while providing the much needed optimism by stating "it is worthwhile to remember that tough times never last; only tough people and tough institutions do". The message was clear – we need to stand firm, maintain resilience and do whatever it takes to deal with the situation.

These decisive and timely measures, which eased financial conditions while unfreezing the markets considerably, got reflected in reduced spreads on money and bond market instruments and higher trading volumes in corporate bonds. Reiterating optimism, it was noted in my April 17, 2020 statement that "Although social distancing separates us, we stand united and resolute. Eventually, we shall cure; and we shall endure". In May 2020, sensing that "the macroeconomic impact of the pandemic is turning out to be more severe than initially anticipated", the MPC decided to reduce the policy repo rate further by 40 basis points. The Governor's statement concluded with the words "Today's trials may be traumatic, but together we shall triumph".

The Reserve Bank's response at the height of the pandemic was prompt and decisive. More than 100 measures were undertaken since March 2020. Moreover, on two occasions – March and May 2020 – the MPC meetings were held ahead of the schedule; while two other standalone statements were made by the Governor outside the Monetary Policy Committee (MPC) cycle – one in April 2020 in the early days of COVID-19 crisis and the other in May 2021 at the peak of the second wave. These off cycle MPC meetings and standalone statements demonstrated the RBI's readiness to undertake pre-emptive actions. We were perhaps the only central bank in the world to have set up a special quarantine facility with about 200 officers, staff and service providers, engaged in critical activities to ensure business continuity in banking and financial market operations and payment systems.

In October 2020, supply-side pressures had taken inflation above the tolerance band of 2 to 6 per cent and there were market concerns over the continuation of the accommodative monetary policy stance, even as output was well-below its pre-pandemic level. Given these circumstances, the MPC reinforced its forward guidance by supplementing state-contingent forward guidance with time-contingent guidance by stating its intent to continue "with the accommodative stance of monetary policy as long as necessary – at least during the current financial year and into the next year ...". Inflation eased in the second half of 2020-21 in line with the MPC's assessment as supply side pressures abated. The time-based element of the guidance did help to anchor market expectations and moderate undue expectations building up at that time of a possible reversal of the monetary policy stance.

Communication exemplifying explicit forward guidance, whose role and nature is continuously evolving, came to the fore in April 2021 on the eve of the virulent second wave of infections. The MPC reverted from both state- and time-based forward

guidance to state-based guidance, realising that "it is difficult to perfectly foresee how the economy evolves and when the recovery gets firmly entrenched given the persistence of the pandemic." The RBI instituted a secondary market G-sec Acquisition Programme (G-SAP) which provided an upfront commitment to a specific amount of open market purchase of government securities, in order to assuage market concerns on the size of the government borrowing programme for 2021-22 and its impact on interest rates in the bond market. This measure, combined with the explicit recognition that the yield curve is a public good whose orderly evolution is the shared responsibility of both market participants and the Reserve Bank, benefited all stakeholders by anchoring yield expectations and provided a benchmark for the pricing of other financial instruments.

Recalibrating the pandemic time policy path, as and when the situation warrants, would present its own share of communication challenges. For RBI's crisis measures announced with pre-specified terminal dates, market expectations remained anchored and communication challenges were minimal when these measures got automatically withdrawn. On the other hand, measures or unwinding of open-ended policies, as and when they happen, would require careful, nuanced and measured communication as in such instances, the expectations of certain segments of the market may not be in sync with that of the central bank's assessment. Illustratively, the Governor's policy statement of February 2021 addressed the fears of reversal of monetary policy which were building up due to resumption of variable rate reverse repo (VRRR) operation in January 2021, by explaining the rationale for the reintroduction of VRRR more explicitly. Similarly, liquidity rebalancing was set in motion in August 2021 through periodic upscaling of the 14-day main VRRR auction so as to ensure that liquidity conditions "evolve in sync with the macroeconomic

developments to preserve financial stability". In the same spirit, G-SAP operations were discontinued in October 2021 given "the existing liquidity overhang, the absence of a need for additional borrowing for GST compensation and the expected expansion of liquidity in the system ...".

As I proceed to conclude, let me briefly summarise how we have been different from other central banks in our pandemic response. First, we have undertaken unconventional measures even before exhausting the conventional policy space; *i.e.*, even before reaching the zero lower bound of interest rates. Second, the counterparties involved in our operations were only banks and All India Financial Institutions (AIFIs) as liquidity provided to targeted sectors were channelised through them. Third, we have confined our asset purchase programme to central and state government securities and have not diluted RBI's collateral standards in our lending operations, unlike many other central banks. Fourth, most of our measures were announced with pre-set terminal dates instead of being open-ended. This has reinforced the credibility of our announcements. Fifth, while stating and in facilitating the "evolution of the yield curve as a public good", we have solely operated in the secondary market unlike some inflation targeting EME central banks that made emergency provisions to operate in the primary market to finance the government directly. Sixth and finally, we have continued with our accommodative stance based on our own domestic growth-inflation dynamics, amidst current divergence in policy actions of central banks across the world. Thus, we have used the flexibility embedded in the FIT framework and implemented our monetary policies, without compromising on our primary mandate of price stability. The *raison d'être* of

our actions, as I mentioned earlier, was communicated through speeches, post-policy press conferences and media interactions.

Concluding Observations

Let me conclude by saying that 'change' has been the only constant in the theory and practice of monetary policy. There is no last word yet on what constitutes the best practice of monetary policy. The conduct of monetary policy has undergone notable changes both in India and across the world as economies and markets evolved and policymakers gained greater insights into how economic agents interact in a complex economic system.

Globally, the evolution of monetary policy has swung from being more directive and discretionary to a strict rule-based regime, before settling to the current consensus for a pragmatic mix of rules and discretion. In this process, communication has gained importance although it works both ways – while too much of communication can confuse the market, too little may keep it guessing about the central bank's policy intent. Therefore, central banks have to tread a very fine line. As monetary policy is an art of managing expectations⁸, central banks have to make continual efforts to shape and anchor market expectations, not just through pronouncements and actions but also through a constant refinement of their communication strategies to ensure the desired societal outcomes. This is, however, an iterative process and central banks are only getting better at it incrementally.

Thank you. Stay well. Namaskar!

⁸ Michael D. Woodford (2003), *Interest and Prices: Foundations of a Theory of Monetary Policy*, Princeton University Press.

*Cryptocurrencies – An assessment**

T Rabi Sankar

Shri Goel, Chairman IBA, Shri Mehta, Chief Executive IBA, Prof Phatak, Chairman of Awards Jury, members of the Jury, MDs and CEOs and other senior functionaries of banks, ladies and gentlemen

Let me begin by congratulating the winners of the IBA Banking Technology Awards. It is indeed a privilege to be among so august an audience and so learned a gathering and be able to talk about an issue of momentous significance – how to deal with cryptocurrencies. Crypto technology and Web 3.0 is dominating the mind-space not just among the technology community but the financial industry as well. Cryptocurrencies, as per their proponents, have the potential to play a critical role in how finance pans out in the future; indeed, there is open speculation about whether finance as we know it and banking as we know it can survive the rise of cryptocurrencies. In this talk I will try and give you my assessment of cryptocurrencies and what they mean for our financial system.

Introduction

As many of you would already know, cryptocurrencies and other crypto products (like non-fungible tokens or NFTs) are being hailed as the innovations that would usher in decentralized finance or DeFi, which are blockchain applications geared to disrupt the traditional financial system. The basic purpose of blockchain, or more generally the distributed ledger, the technology on which these crypto-products run, is to make financial intermediation, and therefore banks, redundant.

What might have escaped the attention of the common man, is that cryptos might be more than just a technology, they appear to embody an ideology as well. A Financial Times video characterizes the success of Bitcoin, the first and most popular cryptocurrency, to “healthy dissent, base greed, lofty idealism, and sheer fear of missing out”¹. The same FT video also says “Cryptos embody a core tenet of anarchism, co-operation in the absence of centralised authority”. The class of crypto products are fundamentally designed to bypass the established financial system, and on a larger scale Government itself. Some enthusiasts even claim that cryptocurrencies can usher in a separation of money and State, like separation of Church and State. Some refer to it as ‘freedom’ money. Or, as Nassim Nicholas Taleb is quoted to have written in the Time² magazine, bitcoin is an insurance policy against an Orwellian future. It may thus not be adequate, from a regulatory point of view, to treat cryptos as just another type of currency or asset or commodity but also as a potential social movement.

Cryptocurrency Basics

Let us briefly, and in very general terms, understand the basics of cryptocurrencies.

When a transaction is made using paper currency, all that the receiver needs to check is that the currency is not counterfeit. Thus, it is the receiver who authenticates the instrument of payment. This arrangement generally works, except for those few instances when the receiver fails to detect a counterfeit currency. In the case of digital transactions, the authentication of the payment is done by an intermediary like a bank, because almost all electronic transactions are transfer of money from one bank account to another. This arrangement also works as the bank certifies that the sender has adequate balance in her account to cover the transaction.

* Keynote address delivered by Shri T Rabi Sankar, Deputy Governor, Reserve Bank of India, on February 14, 2022 at the Indian Banks Association 17th Annual Banking Technology Conference and Awards.

¹ <https://www.ft.com/video/ccb48782-82f9-44ef-97c7-dcfa02431123>

² <https://time.com/5486673/bitcoin-venezuela-authoritarian/>

Some people felt that intermediation by banks is avoidable. Either they felt that banks are not trustworthy, or they considered that the cost charged by banks is excessive, or they were not comfortable with their transactions being tracked. Guided by the idea that cash remains one of the best ways to exercise free speech (refer footnote 3), their solution was to create their own private currency and a transaction arrangement or network that bypassed banks or any other financial or social institution. The basic problem they had to get over was as follows – since electronic money (just some lines of code) can be easily replicated, in the absence of a trust institution like a bank, how does the network ensure that the same currency is not spent again, and again. This was called the 'double spending problem'.

The first 'person' to effectively solve this problem was one Satoshi Nakamoto, a fictional person or persons or corporate or any other entity, no one knows as yet. And bitcoin was born. He did this by creating the blockchain. On a blockchain, when a transaction occurs, it is broadcast to all computers on the network. A set of new transactions, called a block, are authenticated by an agreed consensus mechanism, and then the validated transaction block is added to the previous chain of blocks. Every block is linked to the previous block, making double spending difficult because it would involve changing every subsequent block. Bitcoin was followed by many others, like ether, cardano, dogecoin, tether, stellar *etc.* Collectively they are called cryptocurrencies. The prefix 'crypto-' refers to the fact that cryptography is used to generate or authenticate transactions.

The defining characteristics of cryptocurrencies are: -

- a. That cryptocurrencies are decentralized systems where transactions are authenticated by participants themselves by consensus. They are designed to bypass the financial

system and all its controls. They cannot be traced or confiscated or frozen by Governments.

- b. They are anonymous – transactions are verified, but not the purposes or counterparties of transactions.
- c. They are borderless – that is, they work over the internet without any physical existence.

While Bitcoin started more than a decade back in 2008, until 5 years ago, total market capitalisation of all cryptocurrencies was only \$20 billion (February 2017). This went up to \$289 billion in February 2020 and thereafter exploded to reach a peak of \$2.9 trillion in November 2021. Currently (Feb 09, 2022) it stands at \$1.98 trillion. Bitcoin accounts for 42 per cent of this market capitalisation, the top two cryptocurrencies account for 61 per cent while the top five account for 71 per cent. The total number of cryptocurrencies is at 17,436 and the total number of crypto exchanges is 458.³

A critical assessment of cryptocurrencies

With that brief, and somewhat simplistic, introduction to cryptocurrencies, we will now take a deeper look at the exact nature of cryptocurrencies and their implications, particularly in the context of the current debate in India on the topic. The starting point is to get a clear understanding on (a) What precisely is a cryptocurrency, (b) What useful economic role does a cryptocurrency play, and (c) What, if any, are the risks it poses to the society and economy?

- (i) What precisely is a cryptocurrency?

A cryptocurrency is designed to be a currency, but does it really function like a currency as we understand it. Firstly, currency always has an issuer,

³ The source for this information is <https://coinmarketcap.com> as on February 09, 2022.

usually a trusted entity like the sovereign. Even when gold is used as a currency, the gold coins had to be issued by a sovereign entity. Secondly, historically, a currency has always been either a commodity with intrinsic value or a debt instrument. Cryptocurrencies do not conform to this understanding of a currency as they do not have an issuer, they are not an instrument of debt, or commodities nor do they have any intrinsic value. Currency needs trust, not everything that can be trusted is a currency. So even if technology (as in a blockchain) provides the trust for cryptocurrencies, they can at best perform the role of a currency within the private and closed environment of that cryptocurrency. They do not, and should not, automatically become a currency for the larger society.

Some countries tend to treat cryptocurrencies as a financial asset. This is also problematic because all financial assets have underlying cash flows and need to be some person's liability. Cryptocurrencies are neither any person's liability nor do they have any underlying cash flows. They are not financial assets, by definition.

There is also an effort to treat cryptocurrencies as a commodity. But commodities are tangible and have utility; cryptocurrencies have neither. There is this somewhat awkward attempt to equate some of them with gold, hence limiting their supply like natural resources, or creating them through mining. Limiting supply by design is not the same thing as limited supply in nature (like gold) because (a) design can always be modified and hence such limitation is artificial, and (b) even if one cryptocurrency has limited supply, that limitation does not work for all cryptocurrencies taken together. Further the fact that gold is mined does not in itself make it money, it has to be stamped and issued by a sovereign to make it money.

If cryptocurrencies are neither a currency in the usual sense of the term, nor a financial asset

nor a physical asset what are they? The proponents have improvised to call them as digital assets. Even that is doubtful as cryptocurrencies do not have any underlying use, like for instance car hiring softwares or a core banking systems, or, for that matter, smartphones. That basically leads to the conclusion that it is an electronic code (with no practical use) which has created enough hype such that people are willing to pay money to buy ownership rights to that electronic code, seemingly on the hope that someone else would buy it at a higher price in future. What started off as a medium of exchange has appeal similar to that of a speculative asset.

As a store of value, cryptocurrencies like bitcoin have given impressive returns so far, but so did tulips in 17th century Netherlands. Cryptocurrencies are very much like a speculative or gambling contract working like a Ponzi scheme. In fact, it has been argued that the original scheme devised by Charles Ponzi in 1920 is better than cryptocurrencies from a social perspective⁴. Even Ponzi schemes invest in income earning assets. A bitcoin is akin to a zero-coupon perpetual; it's like you paid money to buy a bond which pays no interest and which will never pay back the principal. A bond with similar cash flows would be valued at zero, which, in fact, can be argued as the fundamental value of a cryptocurrency. If everything eventually returns to its equilibrium value, then the prognosis for investors in cryptocurrencies is not a happy one.

(ii) What useful social or economic role does a cryptocurrency play?

If cryptocurrencies are actually intended to revolutionize finance, we need to understand what precise role they play in finance. An equity share enables a business to mobilize risk capital, a bond enables a company/Government to borrow money, a

⁴ <https://www.ft.com/content/83a14261-598d-4601-87fc-5dde528b33d0>

mutual fund enables retail investors to diversify their portfolio, derivatives enable users to manage their risk and so on. Every financial instrument exists to serve a basic purpose quite distinct from its use as an investment asset. What is the basic role played by cryptocurrencies? Since it claims to be a currency, does it perform the functions of a currency? The answer is that the volatility of many cryptocurrencies precludes them as an efficient medium of exchange. Besides, a priori there is no ground to believe that people place the same trust in them as they do in legal tender currencies. While there is anecdotal evidence of businesses using bitcoins, there really is no reliable data available; by all indications their use as a currency appears to be negligible.

Are cryptocurrencies useful as a store of value? Given the surge in value of some cryptocurrencies, it has been argued that they are. A closer look exposes that argument. Think of any store of value – they are either currencies, or financial assets or commodities which are tangible and have intrinsic value (works of art like paintings also have historical, aesthetic and scarcity value). We have seen that cryptocurrencies are none of these. Notwithstanding their current valuations, if a threshold number of people decide to opt-out, the entire values can easily collapse to nothing.

For all the hype about a revolutionary innovation, cryptocurrencies themselves do not appear to be designed to meet any need in the finance space that is currently not being met or to meet existing needs more efficiently. The innovation, if at all, is of distributed ledger, which, contrary to the claims of proponents, can flourish even if cryptocurrencies themselves are banned across the world.

(iii) What, if any, are the risks posed to a society or an economy?

The fundamental risks of cryptocurrencies are two – they are intended to be private currencies and

they are structured to evade Government control with respect to financial integrity standards such as KYC, AML/CFT etc. Let us examine each of these two points in a little more detail.

Impact of private currencies or currency like products on the economy

Historically, private currencies have resulted in instability and therefore have evolved into fiat currencies over centuries. The retrograde step back to private currencies cannot be taken simply because technology allows it (it always did, actually) without any consideration for the dislocation it causes to the legal, social and economic fabric of society. Every private currency will eventually replace the Rupee to some extent. Consequently, the role of the Rupee as a currency will be undermined. With one or more private currencies being allowed, there would be parallel currency system(s) in the country. Thus, increased acceptance of cryptocurrencies would result in effective 'Dollarization' of our economy⁵. Dollarization, it is well understood, would undermine the ability of authorities to control money supply or interest rates, as monetary policy would not have any impact on the non-Rupee currencies or payment instruments. When that happens, India loses not just its currency, a defining feature of its sovereignty, but its policy control of the economy. With loss of traction for monetary policy, the ability to control inflation would be materially weakened.

Given a choice, people may like to hold at least a part of their deposits in convertible currencies like the US Dollar or Euro. Cryptocurrencies priced in these convertible currencies would provide such an opportunity. If private currencies are permitted,

⁵ This could be actual dollarization if stablecoins linked to the US Dollar become widely used, and there is good reason to believe that they would be popular if permitted.

the banking system's ability to mobilise deposits in Rupees, and consequently, the ability to create credit, would be diminished. Credit creation in convertible currencies would be impervious to monetary policy. In the extreme case where a major part of deposits and credit shift to cryptocurrencies, the result would be a weakened, even crumbling, banking system, impairing financial stability.

There are already indications that private cross-border flows are taking place in cryptocurrencies. If this trend is legitimised, a part of the flows related to trade payments, personal remittances or cross border investments would be made in these cryptocurrencies. As they are non-reserve currencies, this could have adverse implications for India's foreign exchange reserves, which lend stability to the external sector. Besides, such cryptocurrency payments can take place outside the ambit of capital account regulations. This would adversely affect the integrity of the capital account regime, as policy control on capital flows would be eroded. The consequence of this on foreign exchange reserve accretion and exchange rate management raises serious macroeconomic stability issues.

It is important to appreciate that the concern with private currencies is not limited to bitcoin or just cryptocurrencies. The concern extends to any private currency, whether digital or physical, whether crypto-based or not. Stablecoins (which are simply cryptocurrencies that are less volatile) are being promoted globally, presumably because they are more stable than, say, bitcoin. We should in fact be more concerned about stablecoins because they would be more effective as currency than volatile cryptocurrencies. As the FT video cited above says "Stablecoins pegged to official currencies would increase, rather than dampen risks, if assets and liabilities were mismatched."

Impact on global financial integrity standards

The very *raison d'être* of cryptocurrencies is that they bypass established intermediation and control arrangements⁶ that ensure integrity of financial transactions, such as Know-Your-Customer regimes, Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) rules etc. The fact that they are anonymous, decentralized systems that operate purely virtually makes cryptocurrencies particularly attractive to illegal/illegitimate transactions which have been largely filtered out of the formal financial system. Total crimes using cryptocurrencies in 2021 was estimated to be \$14 billion (Wall Street Journal, January 06, 2022). The amount itself is not much but the implications for the AML/CFT framework built painstakingly over the last two decades is rather substantial.

There are other important negative consequences of allowing cryptocurrencies into the formal financial system. We have already noted that there is no basis for valuation of cryptocurrencies. Since valuation is largely based on beliefs, and not on underlying value, it is bound to have a destabilizing effect on monetary stability of a country through large-scale wealth loss to investors (if it is adopted widely), even if it not allowed to be used as a currency.

The socially wasteful energy use of crypto infrastructure has been a subject of widespread discussion. About 900 new bitcoin a day require electricity worth \$45m a day (refer footnote 5). By some estimates electricity use of bitcoins equalled that of the entire country of Switzerland⁷, in 2019.

From what we have seen so far, there does not appear to be any case to allow cryptocurrencies to be

⁶ The only justification appears to be "to allow online payments... without going through a financial institution" as noted by Satoshi Nakamoto, the creator of Bitcoin, in his paper. (<https://bitcoin.org/bitcoin.pdf>)

⁷ <https://www.bbc.com/news/technology-48853230>

legitimized in India. Nonetheless various arguments have been extended to permit cryptocurrencies and subject them to close regulations. In the next section, we would examine the validity of these arguments.

Should cryptocurrencies be permitted and regulated in India

The basic arguments being made for regulating cryptocurrencies are as follows:

- d. Blockchain or Distributed Ledger Technology is a promising technology where Indians might have a global edge. Banning cryptocurrencies would affect the absorption of DLT technology in India.
- e. Most major countries are not banning cryptocurrencies, but are considering some kind of regulation.
- f. Many Indians have already invested in cryptocurrencies and banning it may lead to wealth loss for them.
- g. Banning in any case is unlikely to be effective because by its very nature cryptocurrencies can be acquired and traded in an anonymous manner.

Cryptocurrencies are typically native to a blockchain. For instance, bitcoin is the native coin (or token) of the Bitcoin blockchain, or, ether is the native currency of the Ethereum blockchain. They can be used as units of account to settle transactions or they can be used as tokens to reward work done in the blockchain, say, for mining. Either of these two functions do not appear to be essential to the basic function of a blockchain. It should be possible to maintain a blockchain without any native cryptocurrency if transactions are authenticated centrally. Even in case of private authentication through consensus mechanisms, accounts can be kept and rewards can be given in any legal tender currency. In other

words, creating native cryptocurrencies is just one way of implementing a blockchain; it can be viewed as just one use case of the blockchain technology. To argue that banning cryptocurrencies would stunt the absorption of blockchain technology is therefore akin to saying that banning human cloning would kill innovations in biotechnology or banning nuclear weapons would hurt nuclear physics as a discipline. There are many other uses of blockchain technology or more generally, distributed ledger technology, that do not involve creation of a virtual currency. Thus, claims that cryptocurrencies must be permitted for blockchain technology to thrive are not sustainable.

An argument often advanced against banning cryptocurrencies is that advanced economies (AEs) are not resorting to such bans. While replicating the practices followed in AEs is often an acceptable route to reforms, as far as cryptocurrencies are concerned, it has to be noted that India is not similarly placed as AEs. We should particularly be alert to the possibility that these private currencies can be used for global strategic control. If, for example, some private currency substantially replaces the Rupee, the corporate which manages that cryptocurrency (or the country which has control of that corporate) can practically control India's economic policy. There are a number of other reasons why it might be in the interest of AEs to not ban them, as below.

- a. Almost all cryptocurrencies are priced in terms of Dollars (or potentially any of the freely convertible currencies). Wider adoption would actually result in wider use of these currencies. So cryptocurrencies are not a threat to convertible currencies as they are to the Rupee, which is not an international currency. Following the example of AEs in the matter of cryptocurrencies would effectively amount to working against the interest of the national currency.

- b. Most cryptocurrencies are owned by businesses of AEs; therefore, better adoption of cryptocurrencies would add to their growth and employment. Significantly, it might be of advantage to the AEs if cryptocurrencies replace emerging market (EM) currencies as that would give AEs a better strategic control on the EMEs.
- c. AEs have more mature markets which can withstand the potential disruption from cryptocurrencies. They are, therefore, in a better position to wait and watch.
- d. AEs have quicker legal systems and hence concerns of misuse of cryptos can be addressed through the legal systems. In India, on the other hand none of the major instances of consumer exploitation have been redressed legally (e.g., the mis-selling of derivatives in mid 2000s).
- e. AEs have the political power to control the crypto companies. The recent instance where the US recovered bitcoins from the hackers of the oil pipeline in US, is an example that notwithstanding claims of non-traceability of cryptocurrencies, AE Governments wield enough power to access the records. India or most other countries would lack such advantages.

Another argument often advanced is that so many Indians have already invested in cryptocurrencies and banning cryptocurrencies would lead to a loss of wealth for them. There are three reasons such arguments do not appear justified. One, banning in India does not mean investors would lose money, because they can be provided with a reasonable exit. Two, persons who have invested in these instruments are fully aware of the risks involved. Reserve Bank has been warning investors of the risks for nearly a decade. That an Inter-Ministerial Committee of the Government has

recommended banning cryptocurrencies was widely known for the last three years, as was the fact that cryptocurrencies are not regulated products and there are no investor protection norms in place. Investors who have acquired these instruments have done so with their eyes wide open, at their own risk and do not warrant any regulatory dispensation. Three, there is no data to justify how many investors have invested in these instruments and what is the amount of investment. Data informally gathered in November seems to indicate that crypto investments by Indians is nowhere near to being significant (although the pace of growth could make it a concern in future). This data showed⁸ that four out of five investor accounts⁹ held investments of less than ₹10,000, with an average holding size of ₹1,566. Wealth loss, if at all it is a possibility, is likely to affect only a small fraction of these investors.

Interestingly, concentrated ownership appears to be characteristic of cryptocurrencies. As a January 2021 report published in The Telegraph¹⁰ points out: "According to industry data, around 13 per cent of all Bitcoin sits in the hands of just over 100 individual accounts." They are referred to "crypto whales". Such concentrated ownership, usually by creators or initial investors, in what is touted to be (or at least hoped to be) the alternative monetary system, would make that system prone to manipulation.

That cryptocurrencies should not be banned because a ban is unlikely to be effective is a superficial argument. One might as well argue that drug trafficking is a rampant phenomenon despite a ban,

⁸ The Reserve Bank does not vouch for the reliability of this data as it was collected informally and has not been validated. These conclusions may only be taken as indicative, subject to correction if better data is made available.

⁹ An investor might have multiple accounts. So the number of investors is likely to be less than the number of accounts.

¹⁰ <https://www.telegraph.co.uk/technology/2021/01/22/weird-world-bitcoin-whales-2500-people-control-40pc-market/>

and therefore drug trafficking should be legalised and regulated. If cryptocurrencies are banned, the vast majority of investors who are law abiding would desist from investing. Those few elements who would continue to invest will essentially be carrying out an illegal activity. Such exceptions should reinforce the need for a ban, rather than invalidate it.

It has also been argued by some that the concerns raised in allowing private currencies as a 'medium exchange' are valid. Therefore, they may not be allowed as legal tender but should be allowed as an investment asset. This argument appears to be made more with hope than with any real conviction. Not allowing them as currency would still amount to cryptocurrencies being used as store of value. 'Store of value' demand is a more substantial source of demand for a currency than transaction demand. One only needs to compare the volume of time deposits with transactional deposits to understand this. If a cryptocurrency is used as a store of value the same concerns arise again. Also, unlike the value of Rupee, which is anchored by monetary policy and its status as legal tender, the value of crypto assets rests solely on the expectation that others will also value and use them. Since valuation is largely based on beliefs that are not well anchored, it is bound to have a destabilising effect on the monetary and fiscal stability of a country, even while it is not permitted to operate as a legal tender.

There are other reasons why it would be futile to regulate cryptocurrencies. As discussed, cryptocurrencies are not currencies, or financial assets or real assets or even digital assets. Therefore, it cannot be regulated by any financial sector regulator. It is not possible to regulate something that one cannot define.

Cryptocurrencies are typically global products whose defining characteristic is that they are outside official control and they cannot be regulated by country-specific regulators. The Financial Stability

Institute of the Bank for International Settlements (BIS) identifies difficulties in regulating cryptos – such as the international nature of crypto transactions, absence of technological solutions to ensuring FATF's 'Travel Rule', the problem of 'unhosted wallets', the fact that P2P transactions do not involve any entity subject to AML-CFT regulations, etc. Let us suppose India decides to regulate cryptocurrencies. How would it regulate and redress a case of mis-selling as it has no access to the ledger, nor to any audit trail. As it is not always possible to know of the persons who are the management for cryptocurrencies (e.g., bitcoin), at whom would the regulatory action be directed? If for any reason the entire system collapses what possible regulatory redressal exists for investors? These are questions with very uncomfortable implications that do not have satisfactory solutions.

Conclusion

We have seen that crypto-technology is underpinned by a philosophy to evade Government controls. Cryptocurrencies have specifically been developed to bypass the regulated financial system. These should be reason enough to treat them with caution. We have also seen that cryptocurrencies are not amenable to definition as a currency, asset or commodity; they have no underlying cash flows, they have no intrinsic value; that they are akin to Ponzi Schemes, and may even be worse. These should be reason enough to keep them away from the formal financial system. Additionally, they undermine financial integrity, especially the KYC regime and AML/CFT regulations and at least potentially facilitate anti-social activities. More substantially, they can (and if allowed most likely will) wreck the currency system, the monetary authority, the banking system, and in general Government's ability to control the economy. They threaten the financial sovereignty of a country and make it susceptible to strategic manipulation by private corporates creating these currencies or Governments that control them. All these factors

lead to the conclusion that banning cryptocurrency is perhaps the most advisable choice open to India. We have examined the arguments proffered by those advocating that cryptocurrencies should be regulated and found that none of them stand up to basic scrutiny.

Writing in the *New York Times*¹¹ Adrian Chen noted as far back as 2013 that Bitcoin is built on a weird mix of speculative greed bolstered by a utopian

cyberlibertarian ideology and likened it to a digital gold rush. Indeed, hyperbole continues to characterise all aspects of the crypto world. Crypto messaging does not appear to be directed at the rational or sensible. Global advertisements with themes such as the 'fortune favours the brave'¹² is reflected somewhat in our very own 'lag ja re... kuch to badlega'. It would serve us well if the understanding about cryptocurrencies goes beyond the hype and gets rooted in reason and pragmatism.

¹¹ Much Ado About Bitcoin, op-ed, *New York Times*, November 26, 2013).

¹² Jody Rosen (*New York Times*, February 02, 2022).

ARTICLES

State of the Economy

Union Budget 2022-23: Some Pleasant Fiscal Arithmetic

Green Transition Risks to Indian Banks

Decoding Fair Value Hierarchy in Ind AS

Financial Statements of NBFCs

Herding Behaviour - Does it exist in Indian Stock Market

*State of the Economy**

The ongoing geopolitical crisis has heightened the uncertainty clouding the global macroeconomic and financial landscape even as the world economy struggles to recover from the pandemic. As the conflict escalates, oil and other commodity prices are blazing to multi-year highs, and financial markets are on edge, driven by massive sell-offs. Amidst these testing times, the Indian economy is experiencing spillovers as it recovers from the third wave of the pandemic. Consumer and business confidence are rising alongside improvement in demand conditions. On the supply side, a resilient farm sector and a sustained retrieval in both industrial and services sectors are broadening the recovery.

Introduction

Global economic prospects are suffused with heightened uncertainty and clouded by downside risks from geopolitical conflict, with spillovers reverberating across the world. This is happening at a time when countries are still reeling under the pandemic. The escalation of geopolitical risk, surge in crude oil prices and intensified volatility across global financial markets may smother the embryonic global recovery. This shock has also hit at a time when inflation is elevated in many countries. Moreover, with monetary policy normalisation imminent, global financial conditions could tighten further. At the receiving end are emerging market economies (EMEs), already reeling under currency depreciation, massive sell-offs by foreign portfolio investors and slowing growth.

* This article has been prepared by Yogesh HC, Shashidhar M. Lokare, Kunal Priyadarshi, Rajeev Jain, Vineet Kumar Srivastava, Harshita Keshan, Satyarth Singh, Krishna Mohan Kushawaha, Ramesh Baliram Golait, Prashant Kumar, Jobin Sebastian, Saksham Sood, Satyam Kumar, Jitendra Sokal, Jibin Jose, Avnish Kumar, Ashish Santosh Khobragade, Ramesh Kumar Gupta, Rohan Bansal, Deba Prasad Rath and Samir Ranjan Behera. Views expressed in this article are those of the authors and do not necessarily represent the views of the Reserve Bank of India.

The Indian economy steadied in February 2022 after some moderation of pace in the preceding month when the third wave was at its peak. By March 15, 2022, however, the third wave receded sharply, with the 7-day average of daily infections plunging below 3,500. On the vaccination front, 96.0 per cent of the adult population has been inoculated with the first dose, while 82.3 per cent were administered both doses. Economy gaining traction has helped in rebuilding consumer confidence as reflected in the all-India Centre for Monitoring Indian Economy (CMIE) index of consumer sentiment, which rose to its highest level since the first wave of the pandemic across both urban and rural constituents.

Mobility around retail and recreation activity, grocery and pharmacies, parks, workplaces and transit station is above pre-pandemic levels. The job market remained ebullient, with the Naukri JobSpeak index climbing to its highest level in February 2022, with a sharp growth in hiring in insurance and retail sectors. There is a revival in employment in the auto industry after a prolonged period of lull, while hiring across information technology (IT), hospitality and financial services remained robust. In February 2022, revenue collections under the goods and services tax (GST) crossed ₹1.3 lakh crore mark for the second consecutive month. The issuance of e-way bills remained robust.

The second advance estimates released by the Ministry of Agriculture and Farmers Welfare placed foodgrains production at a record 316.1 million tonnes. The headline manufacturing purchasing managers' index (PMI) stayed in expansion zone for 8th consecutive month in February, improving marginally over a month ago with new orders and production recording an acceleration. With improvement in business confidence, the headline services PMI remained in expansionary territory for the seventh consecutive month. February's merchandise exports surpassed the US\$ 30 billion mark for the twelfth consecutive month and the target

of US\$ 400 billion appears within striking distance. Payments through the digital space surged rapidly. The Reserve Bank launched two key initiatives on March 8, 2022: (i) UPI123Pay which would provide the option to make Unified Payments Interface (UPI) payments for feature phone users; and (ii) DigiSaathi which is a 24x7 helpline to address queries of users across digital payment products.

Set against this backdrop, the remainder of the article is structured into four sections. Section II captures the rapidly evolving developments in the global economy. An assessment of domestic macroeconomic conditions is presented in Section III. Section IV reviews financial conditions in India, while the last Section concludes the article.

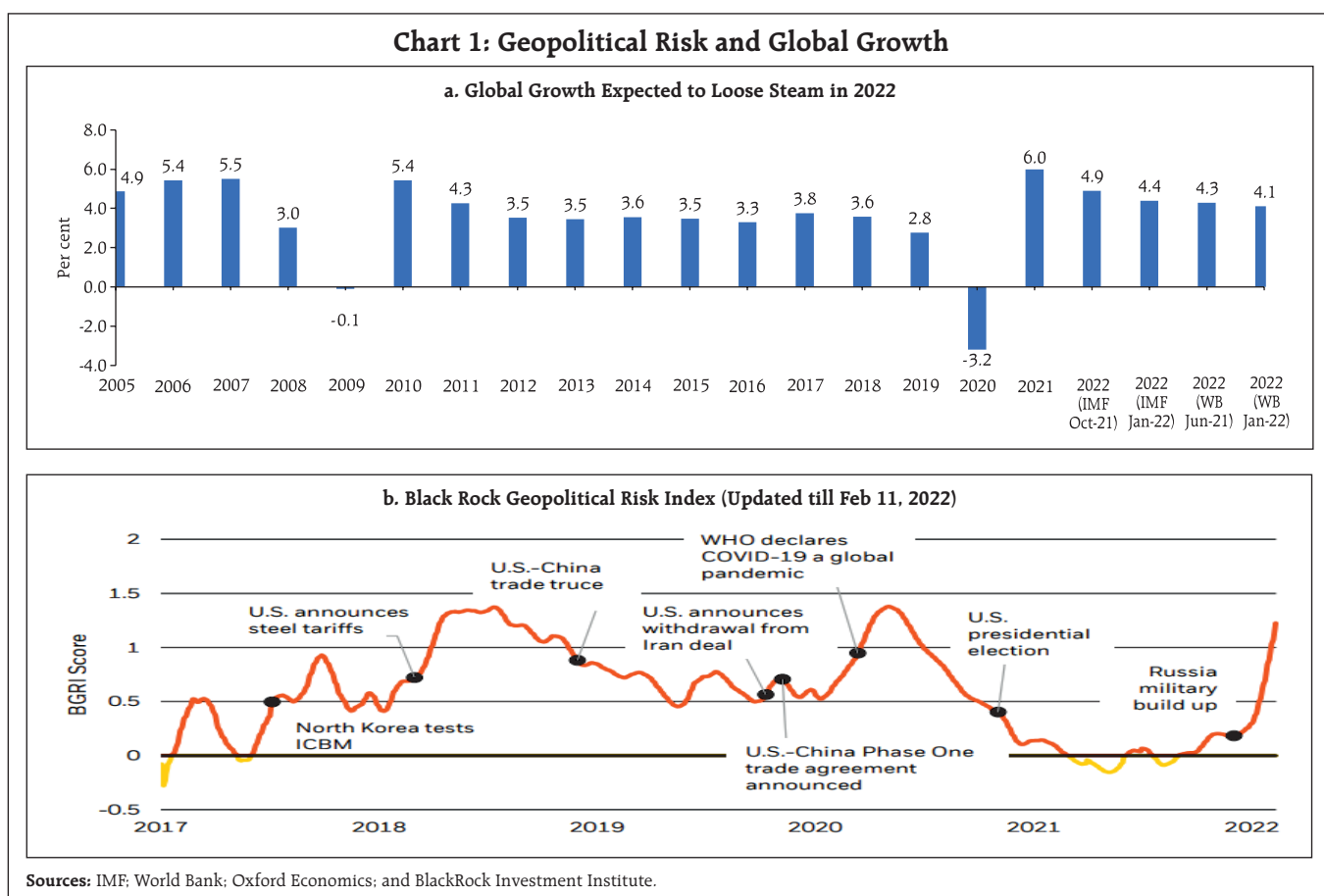
II. Global Setting

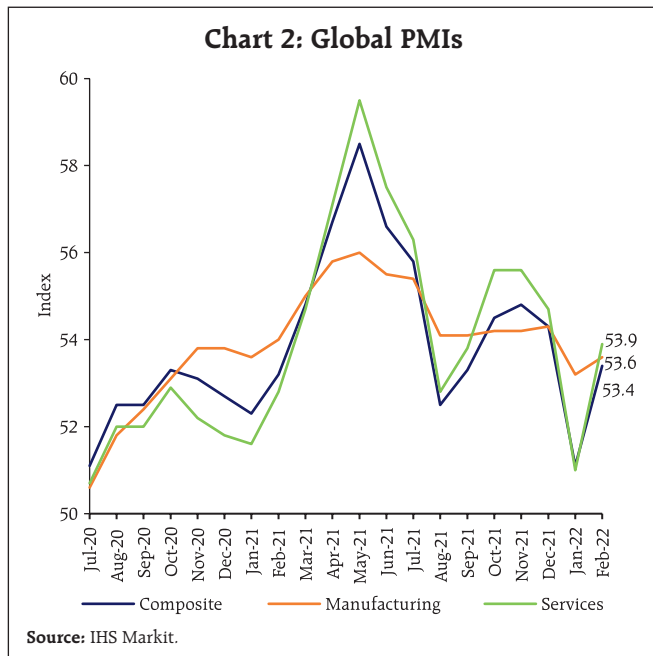
The global economy is facing formidable headwinds from the conflict in Ukraine. Oil prices

had touched multi-year highs, financial markets are on edge, driven by mass buying into the safe haven assets, particularly gold. Amidst such turbulence, the global growth outlook is worsening with intensified inflation and financial instability risks.

In the absence of an early solution to the ongoing conflict, the crisis can have adverse implications for the global recovery, necessitating downward revisions of global growth for 2022 and beyond (Chart 1).

The global composite PMI for February at 53.4 revived from January's one-and-a-half year low of 51.1, as growth of new orders and employment accelerated, and business optimism strengthened to a near record high (Chart 2). Both manufacturing and services picked up momentum, with the latter outperforming the former for the tenth time in the past 11 months.

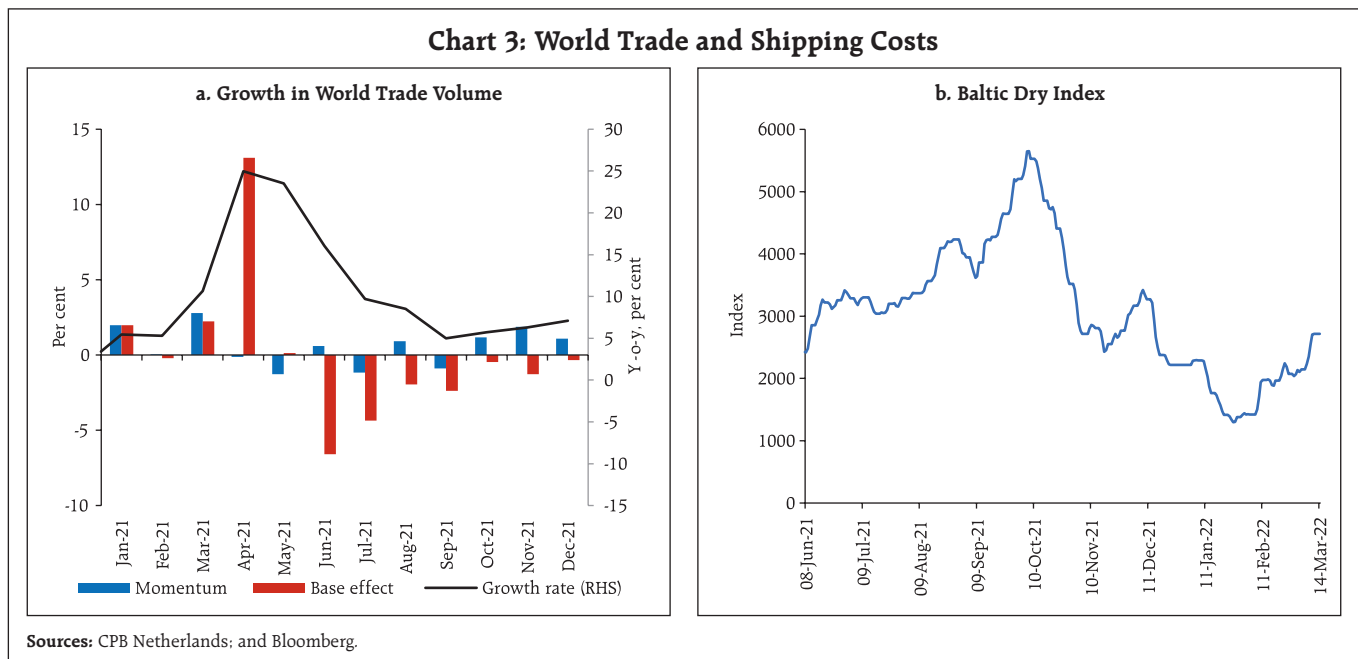


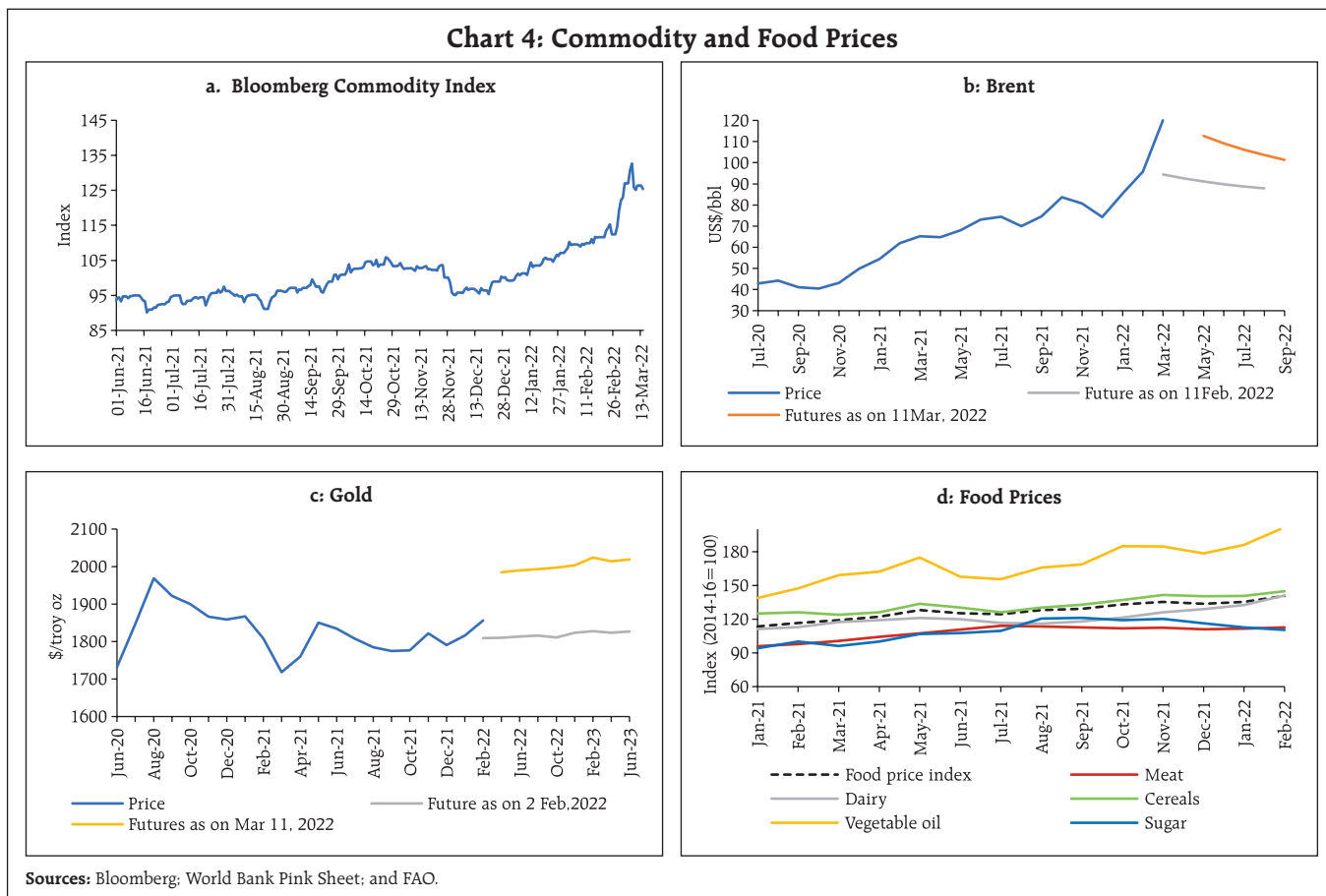


Most countries signalled an expansion in economic activity except Japan, which saw output contract at its steepest rate since last August. On March 5, China announced its growth target of about 5.5 per cent for 2022 – the lowest in 30 years – as the growing geopolitical tensions add to pressures from property crisis and weak consumption.

On the external front, the United Nations Conference on Trade and Development (UNCTAD)’s Global Trade Update 2022 shows that global trade growth accelerated during Q4:2021, while the nowcast indicates that trade growth will slow during Q1:2022. This is corroborated by the monthly data from the CPB World Trade Monitor (Chart 3a). The Baltic Dry Index, a measure of shipping charges for dry bulk commodities, showed an uptick in February 2022 and has continued escalating as geopolitical pressures caused new disruptions, especially Russian and Ukrainian ports in the Black Sea (Chart 3b).

The Bloomberg commodity price index continued to surge, reaching a seven-year high in the last week of February by breaching the 120 mark (Chart 4a). Prices of crude, nickel, aluminium and wheat soared on growing supply shortages. With the war propelling risks of outright supply losses and OPEC *plus* providing no respite by sticking to its monthly supply augmenting plan of July 2021, crude oil prices had skyrocketed to a ten-year high, touching US\$118 per barrel in early March (Chart 4b). Safe haven demand has been driving gold prices up since February

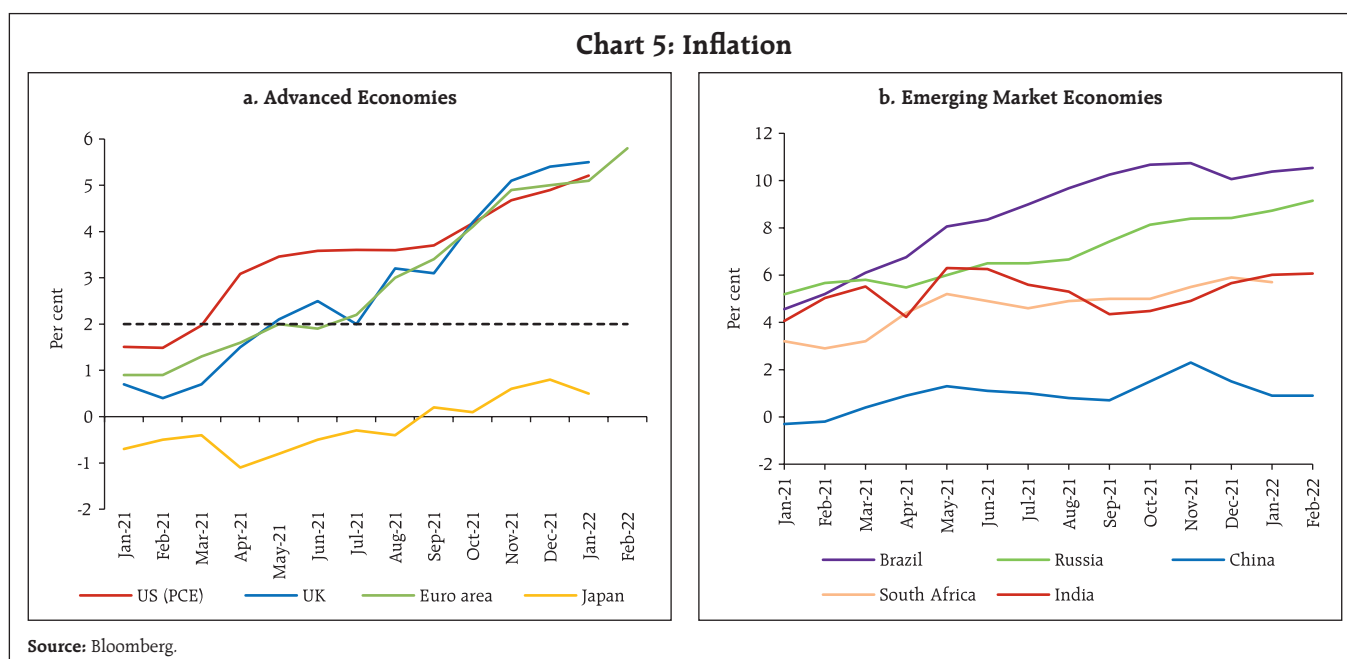




(Chart 4c). The FAO Food Price Index at 140.7 in February 2022 was 3.9 per cent higher than in January and at an all-time high, largely driven by vegetable oils and dairy sub-indices (Chart 4d).

Inflation continued to rise across economies, with cost push pressures intensifying in the backdrop of clogged supply chain, high energy, food and commodity prices and seeping wage pressures (Chart 5). US CPI inflation rose to a 40-year high of 7.9 per cent in February 2022. Core CPI inflation was also at a near 40-year high of 6.4 per cent in February, with the main contributors being shelter, and used cars and trucks. Wage pressures, as reflected in the fastest annual wage growth of 4.5 per cent for 2021 since 1983, along with surging rental prices have manifested in the personal consumption expenditure (PCE) price index inflation increasing to 6.1 per cent

year-on-year in January 2022, the highest in 40 years. Concomitantly, core PCE inflation rose to 5.2 per cent from a year ago, the highest since April 1983. Euro Area inflation edged up further to hit a fresh high of 5.8 per cent in February 2022 due to a steep increase in energy prices, especially that of natural gas. Japan's inflation moderated in January, primarily on easing housing costs and low mobile charges, remaining below the 2 per cent target. Among BRICS economies, Brazil's inflation soared to 10.5 per cent while China's inflation remained stable at 0.9 per cent. On the other hand, Russia's annual inflation rate accelerated to 9.15 per cent in February 2022, the highest since January 2016, now over twice as high as the central bank's target of 4 per cent. Inflation risks are tilted to the upside amidst sanctions from the west and raw materials shortages.



Global financial markets are in a tailspin since the latter half of February due to exacerbated geopolitical tensions worrying investors across the globe. In the last week of February, the MSCI World Equity Index plummeted to levels previously seen in March 2021, driven by fall in both advanced economy (AE) and emerging market economy (EME) stock indices although the latter fell more sharply. The European stock index performed the worst among AEs in February, reflecting the region's heavy reliance on Russia's energy supplies while Russian stock indices performed the poorest among EMEs (Chart 6a). Trading has been halted on the Russian stock exchanges since February 28.

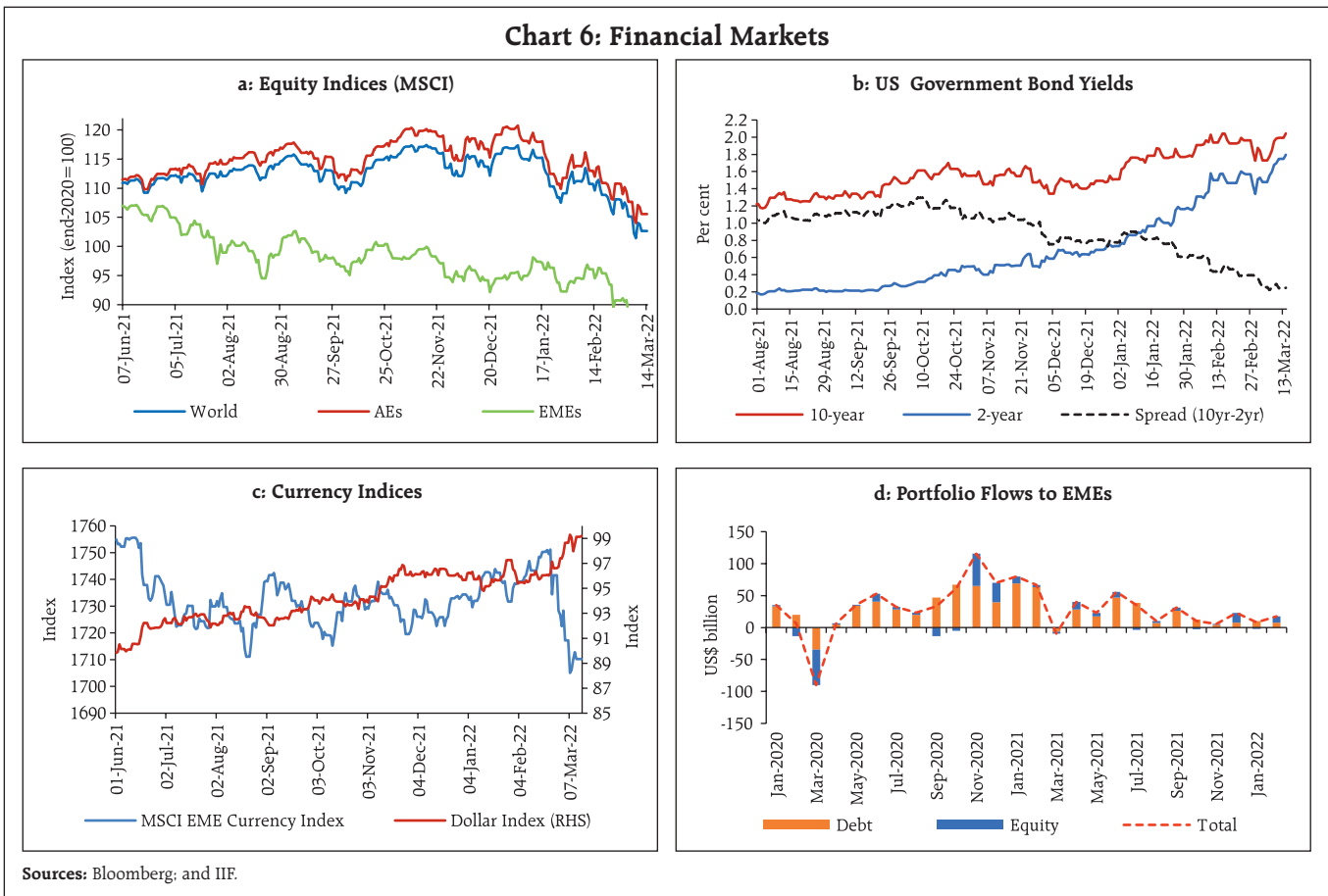
In the bond markets, the US 10-year treasury yield reversed its uptrend later in the month as demand for treasury securities increased with flights to safety and expectations of aggressive rate hikes moderated post the Fed Chair's testimony to the Congress in early March (Chart 6b). The US dollar strengthened since the second half of February amidst safe haven demand while EME currencies moved in reverse tandem, barring a few commodity exporters. Notably, the Russian ruble fell to its weakest value ever against

the US dollar, depreciating by more than 30 per cent in the last week of February (Chart 6c).

Notwithstanding turbulence in global financial market, portfolio capital flows to EMEs are estimated at US\$17.6 billion in February 2022 as compared with US\$ 8.1 billion in January. According to the Institute of International Finance, foreign investment in emerging market securities (stocks and bonds) outside China languished amidst growing concerns of investors over tighter monetary conditions, geopolitical frictions, and slower recovery in some EMEs from the pandemic (Chart 6d). Also, most EMEs experienced net capital outflows in the first week of March, particularly in the debt segment.

Wild swings in global financial markets over the past week have caused the Volatility Index, which peaked around March 2020 at the start of pandemic, to rise even further (Chart 7 and Table 1).

Monetary policy actions in February and March so far (up to 14th) were geared towards normalisation or a pause. The Fed has wound up asset purchases and is set for a lift-off in March. The European Central Bank (ECB) has scaled back its ongoing Asset Purchase



Programme (APP) while also announcing the likely conclusion of net purchases under the APP in the third

quarter if the medium-term inflation outlook does not weaken. The Reserve Bank of New Zealand and the

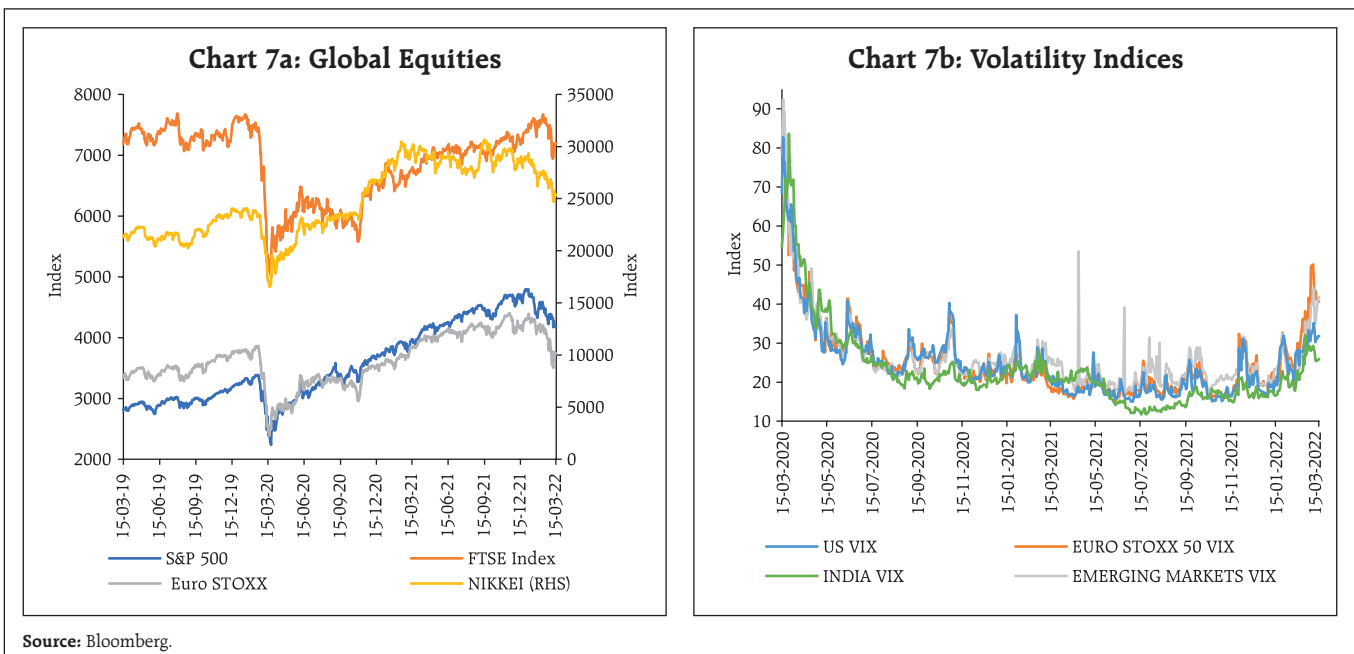


Table 1: Global Economic Policy Uncertainty (EPU)

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22
World EPU	180	140	119	126	152	181	199	213	202	192	223			
US EPU	216	154	177	123	130	113	130	124	120	110	135	357	302	334
Europe EPU	232	185	217	179	141	153	197	187	206	198	247	298	259	

Note: Europe EPU covers 5 European economies - Germany, the United Kingdom, France, Italy, and Spain. Index data based on Baker, Bloom and Davis (2016).

Source: www.policyuncertainty.com.

Bank of Canada raised rates by 25 bps each in February 2022 and March 2022, respectively. Most EME central banks also continued with their policy tightening, including Mexico which hiked its benchmark interest rate by 50 bps in February. On February 28, 2022 in an emergency move, the Bank of Russia increased its key rate by 10.5 percentage points to 20 per cent due to deterioration in the external environment and escalating risks of currency depreciation and high inflation (Chart 8). On the other hand, the People’s Bank of China paused after two consecutive months of easing while the Central Bank of the Republic of Turkey maintained a pause for the second consecutive month.

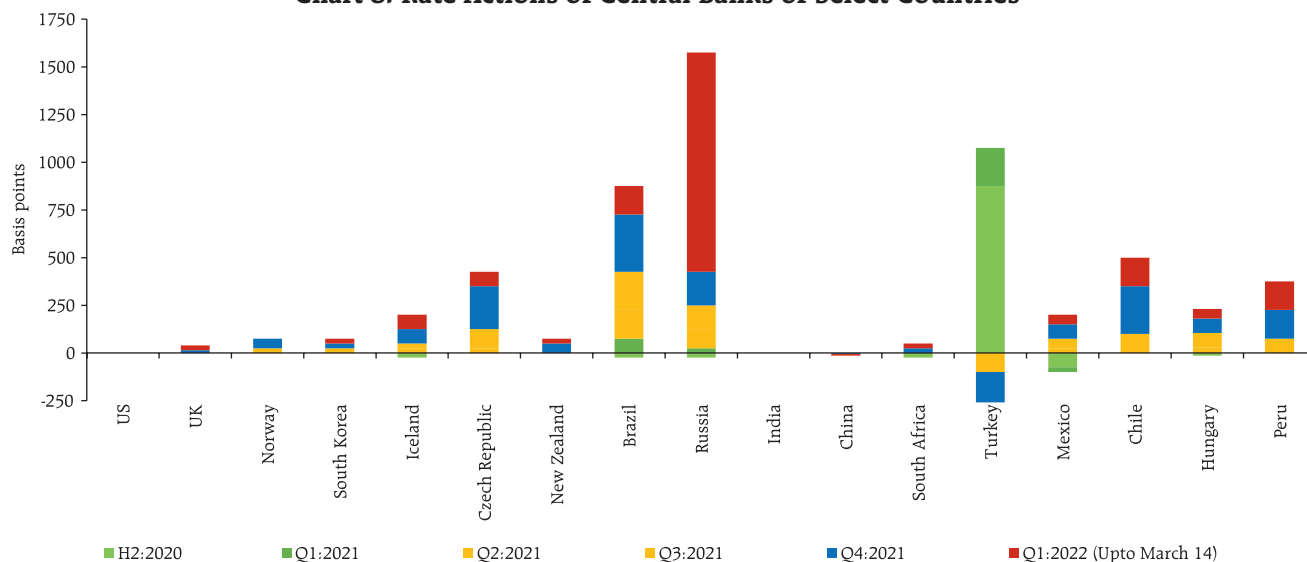
Central banks across the world face a tough challenge of balancing the curbing of inflation

against keeping the recovery on track. With economic outlook mired in heightened uncertainty, risks to EMEs have intensified as external conditions become increasingly less favourable, with capital outflows, global liquidity tightening and a worsening geopolitical environment.

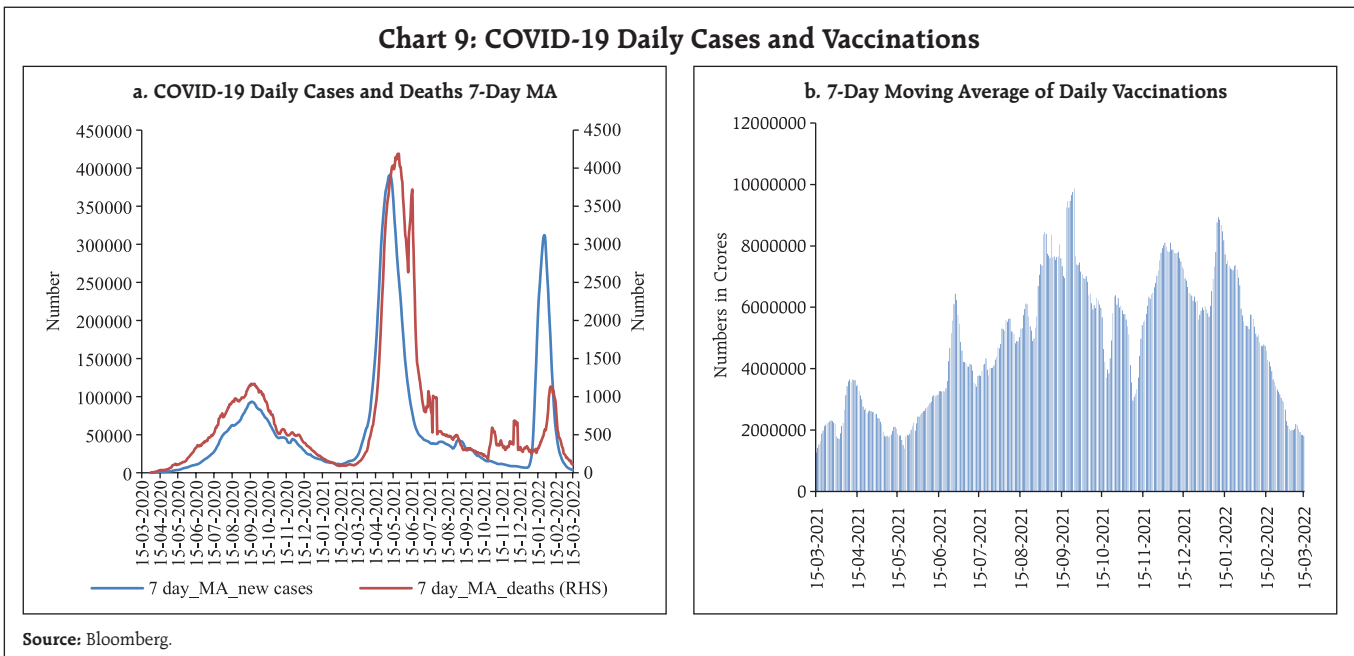
III. Domestic Developments

With a rapid fall in daily Covid-19 cases – daily infections have plummeted since January 21, 2022 and have declined to below 3,000 on March 15, 2022 from a peak of 3.47 lakh on January 20, 2022 and 82.3 per cent of the adult population and over 3.4 crore children in the 15-18 year age group fully vaccinated, the third wave of the pandemic has ebbed (Chart 9). Restrictions on the movement of people and goods

Chart 8: Rate Actions of Central Banks of Select Countries

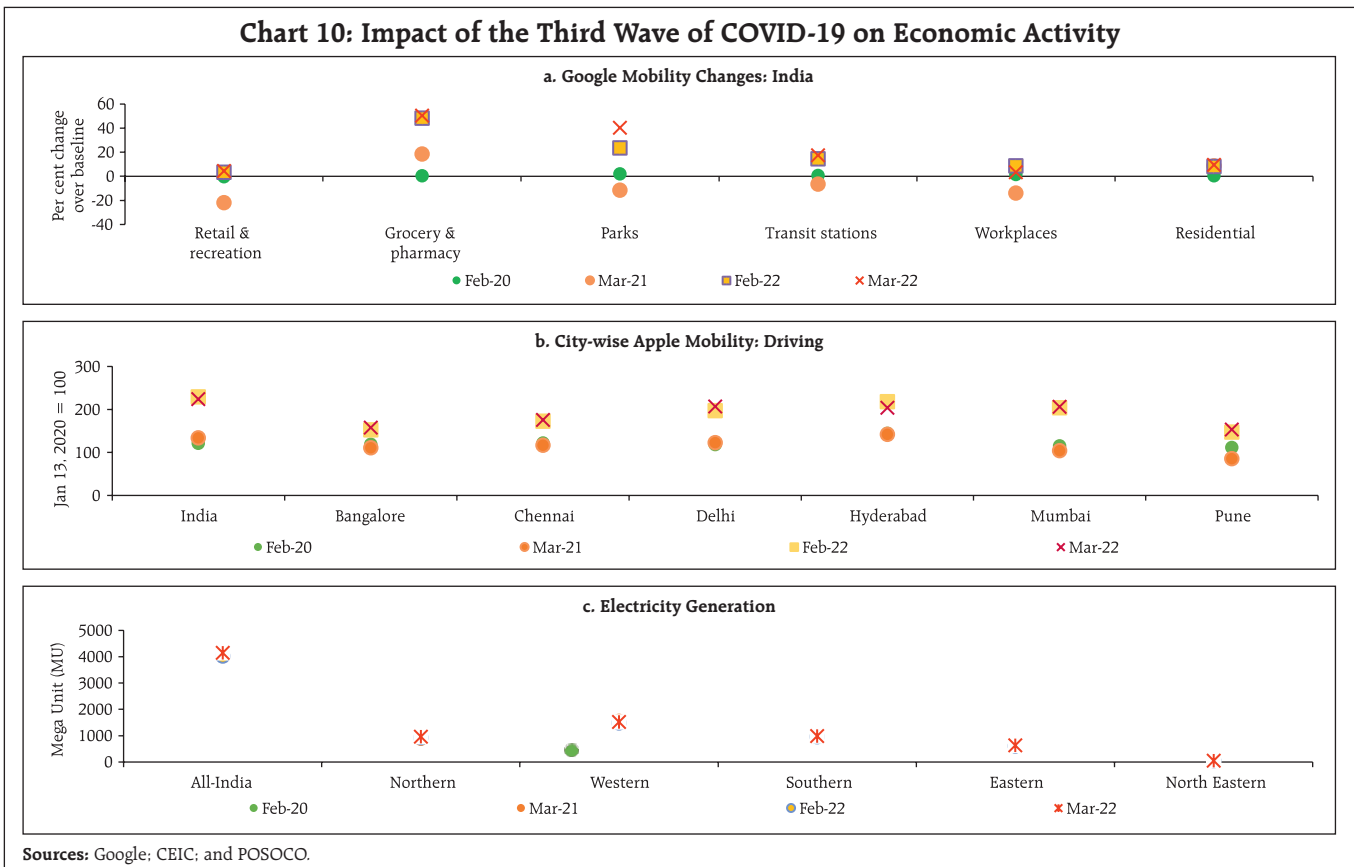


Source: Central bank websites.



have been lifted at most places. Services sector outlets such as restaurants and cinema halls are gradually resuming normal operations.

Mobility indicators show significant improvement in March 2022 as compared with a year ago (Chart 10a). Apple mobility index was also higher in



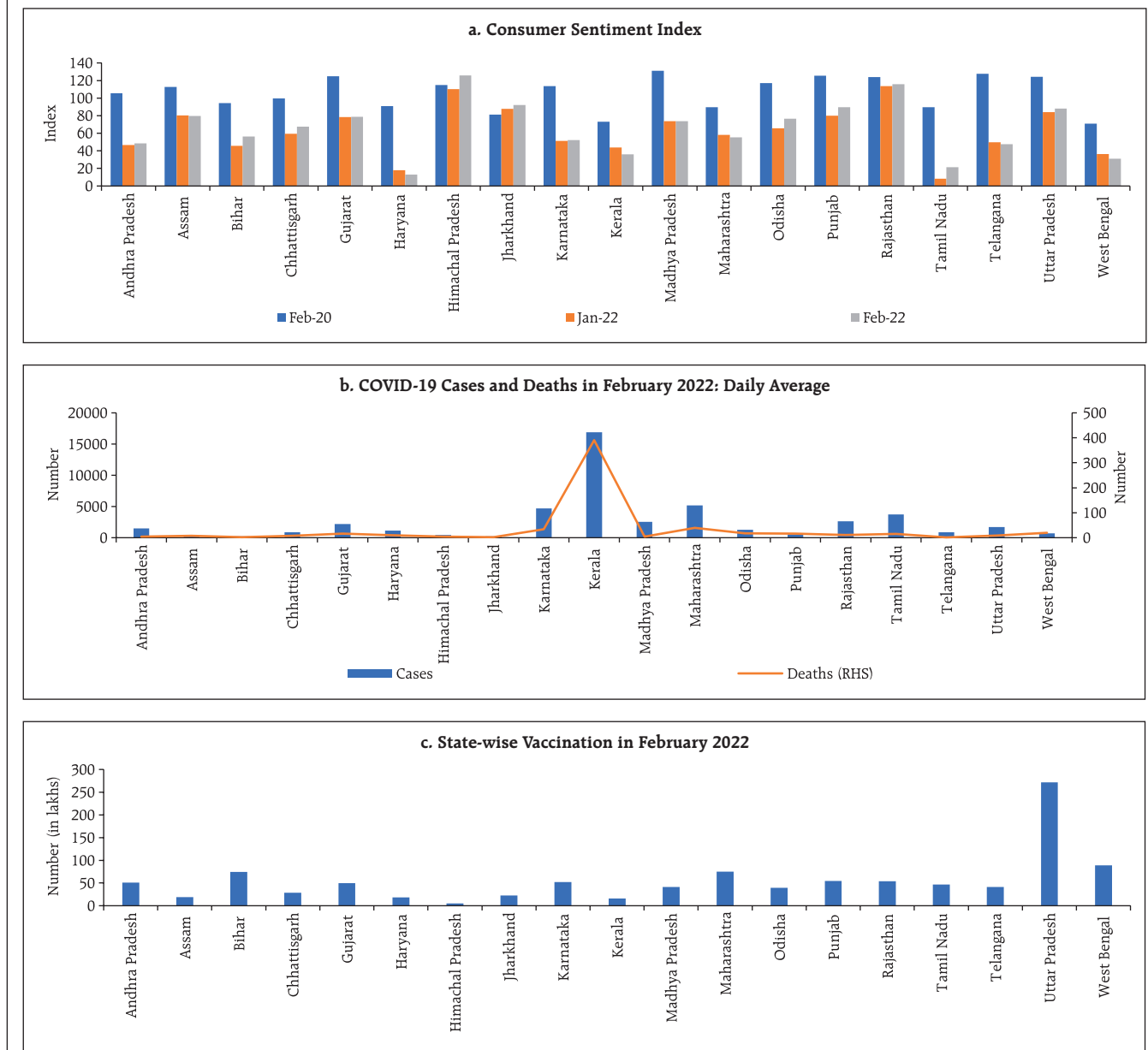
March (till March 4) (Chart 10b). With the improvement in mobility and opening up of services sector outlets, electricity generation picked up in March, exceeding the levels of the preceding month and also pre-pandemic levels (Chart 10c).

As a result, consumer sentiment improved in the majority of states in February 2022 (Chart 11).

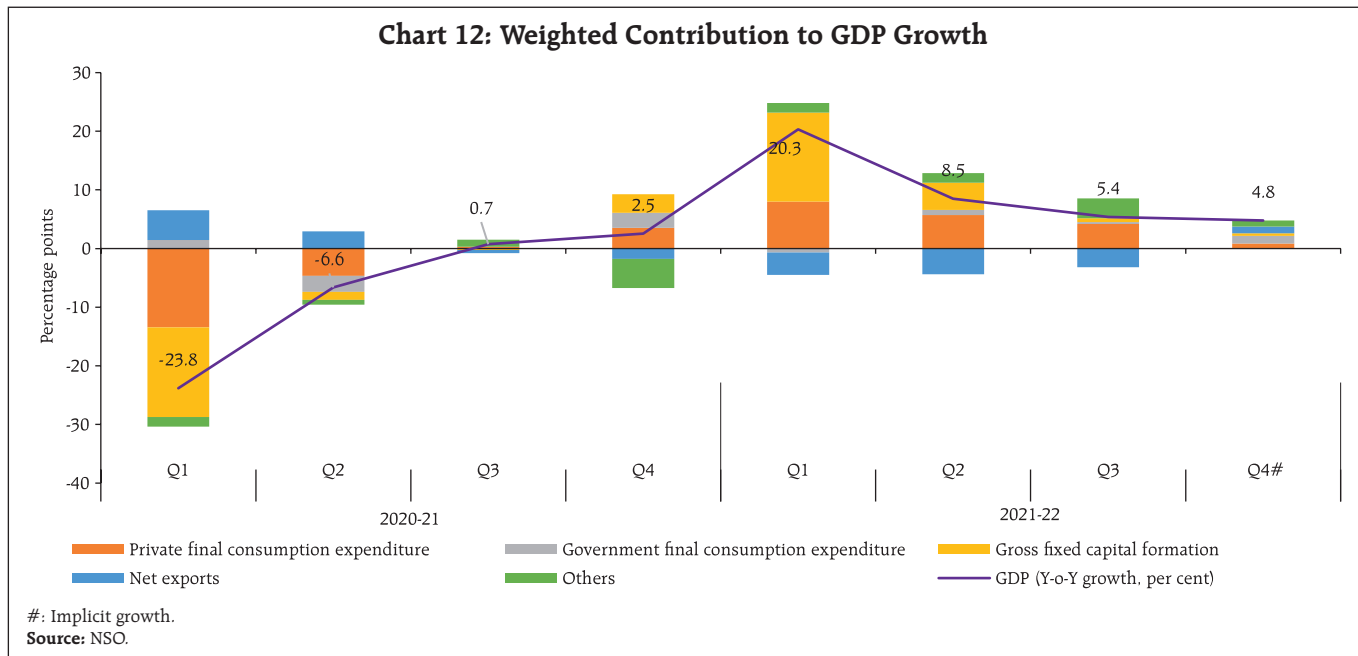
Aggregate Demand

As per the second advance estimates (SAE) of national income released by the National Statistical Office (NSO) on February 28, the Indian economy clocked a growth of 8.9 per cent in 2021-22, a downward revision of 30 basis points from the first advance estimates (FAE). Real GDP in level terms

Chart 11: State-wise Consumer Sentiment and Vaccinations



Source: CMIE.

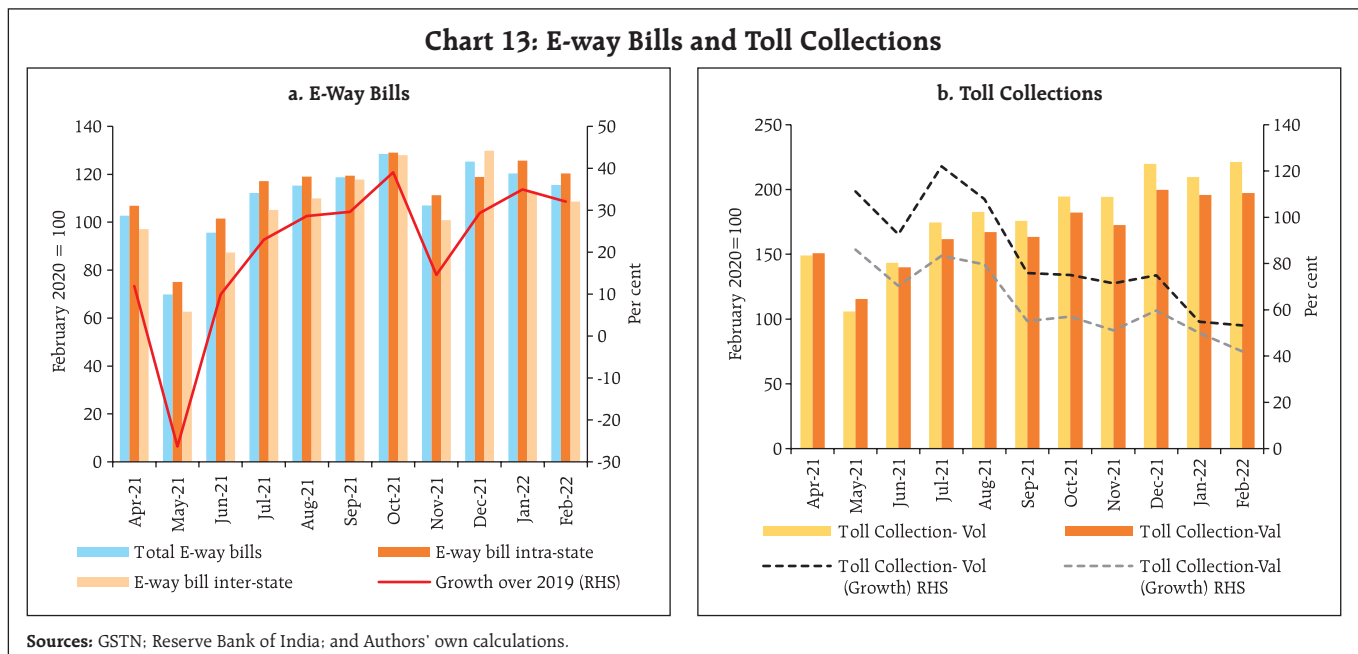


surpassed the pre-pandemic level of 2019-20 by 1.8 per cent. The recovery was broad-based as all constituents of aggregate demand, including private consumption, have recuperated and surpassed their respective pre-pandemic levels.

With regard to components of real GDP, private final consumption expenditure (PFCE) registered a growth of 7.0 per cent during Q3:2021-22. With a

slump in construction activity, gross fixed capital formation (GFCF) moderated to 2.0 per cent. Both exports and imports maintained steady momentum to register double-digit growth in Q3:2021-22 (Chart 12).

E-way bills generation remained above pre-pandemic levels (Chart 13a). Toll collections also rose in February 2022, despite the waning of base effect (Chart 13b).

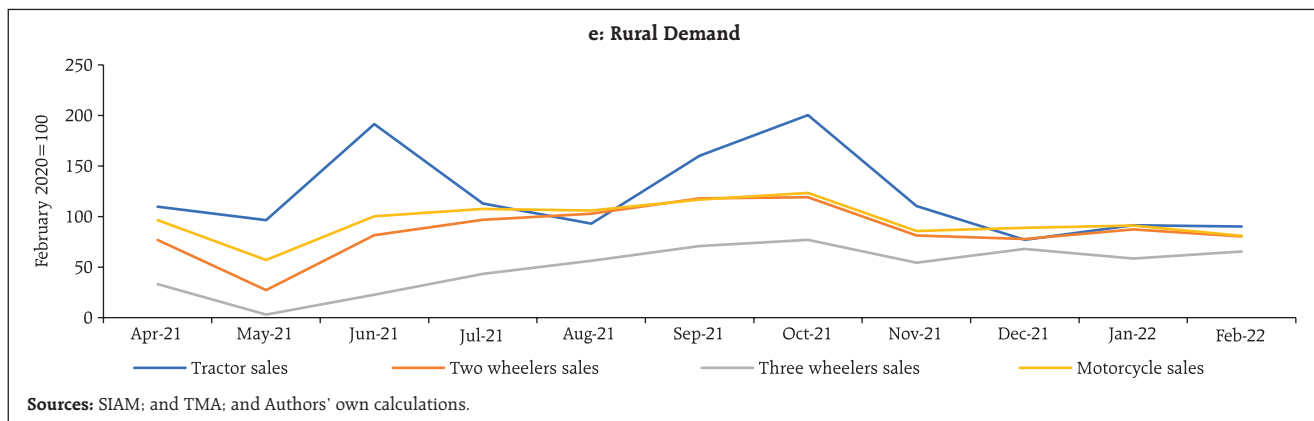
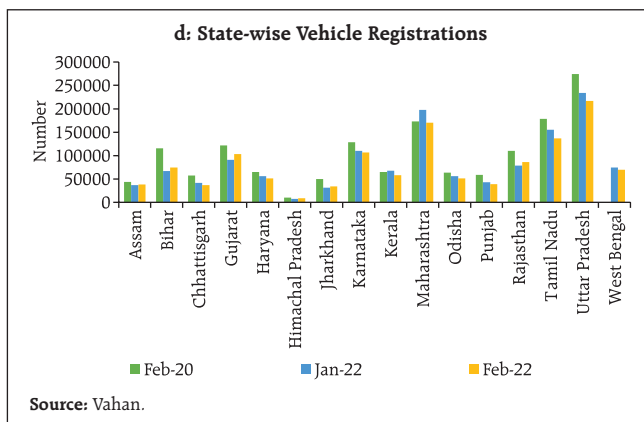
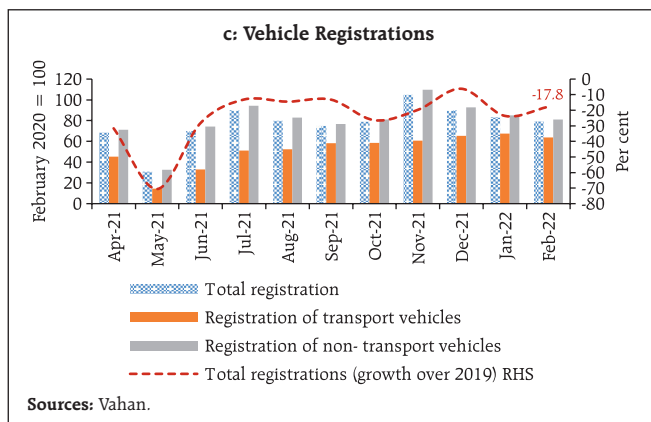
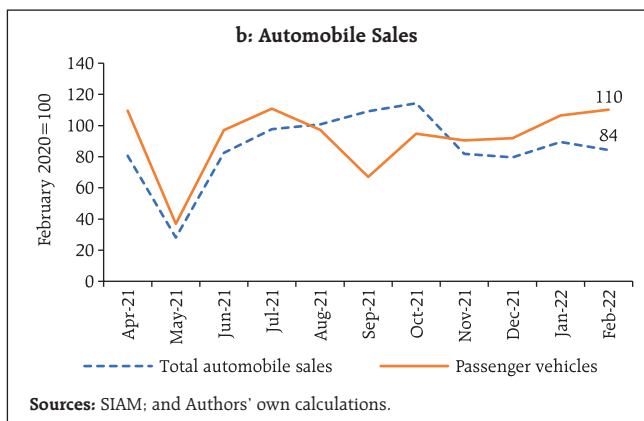
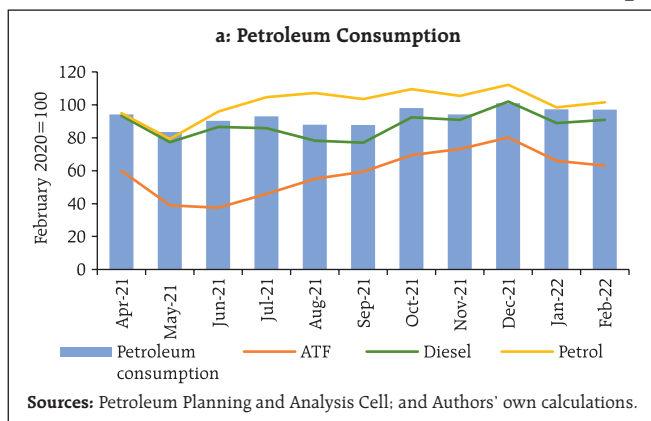


The resumption in mobility spurred diesel and petrol consumption in February 2022, although a dip in Aviation Turbine Fuel (ATF) dampened total petroleum consumption (Chart 14a).

Automobile sales moderated in February, led by a decline in sales of two wheelers, even as wholesale dispatches of passenger vehicles from Original Equipment Manufacturers (OEMs) recorded an

uptick (Chart 14b). Dispatches of trucks also improved across all segments, indicating sustained improvement in the transport sector. Price hikes by OEMs to combat input inflation and higher retail fuel prices have increased the cost of ownership of capital equipment. Retail sales of automobiles continued to stagnate, with high delivery times impeding registrations (Chart 14c). As regards automobile sector, Maharashtra and Uttar

Chart 14: Transport Sector Indicators



Pradesh were the top two states in vehicle registrations in February 2022 (Chart 14d). The electric vehicle segment posted multifold increases in sales. Rural demand recorded a moderation with two wheelers and entry level cars contracting over pre-pandemic levels (Chart 14e).

FMCG demand rebounded in February 2022 after a sluggish performance in January. As per retail intelligence platform Bizom, FMCG sales increased by 17 per cent (m-o-m) in February. The growth was entirely driven by higher sales of commodities and packaged foods, while home and personal care categories declined.

As per the household survey of the Centre for Monitoring Indian Economy (CMIE), the labour participation rate increased marginally by three basis points in February 2022 over the preceding month. The employment rate (worker population ratio) fell by 58 basis points, which led to a significant increase in the unemployment rate from 6.6 per cent in January to 8.1 per cent in February 2022. The survey also indicated that unemployment is falling in urban areas and rising in rural areas (Chart 15a). Employment rates in industrialised states like Gujarat and Maharashtra witnessed a sign of improvement (Chart 15b).

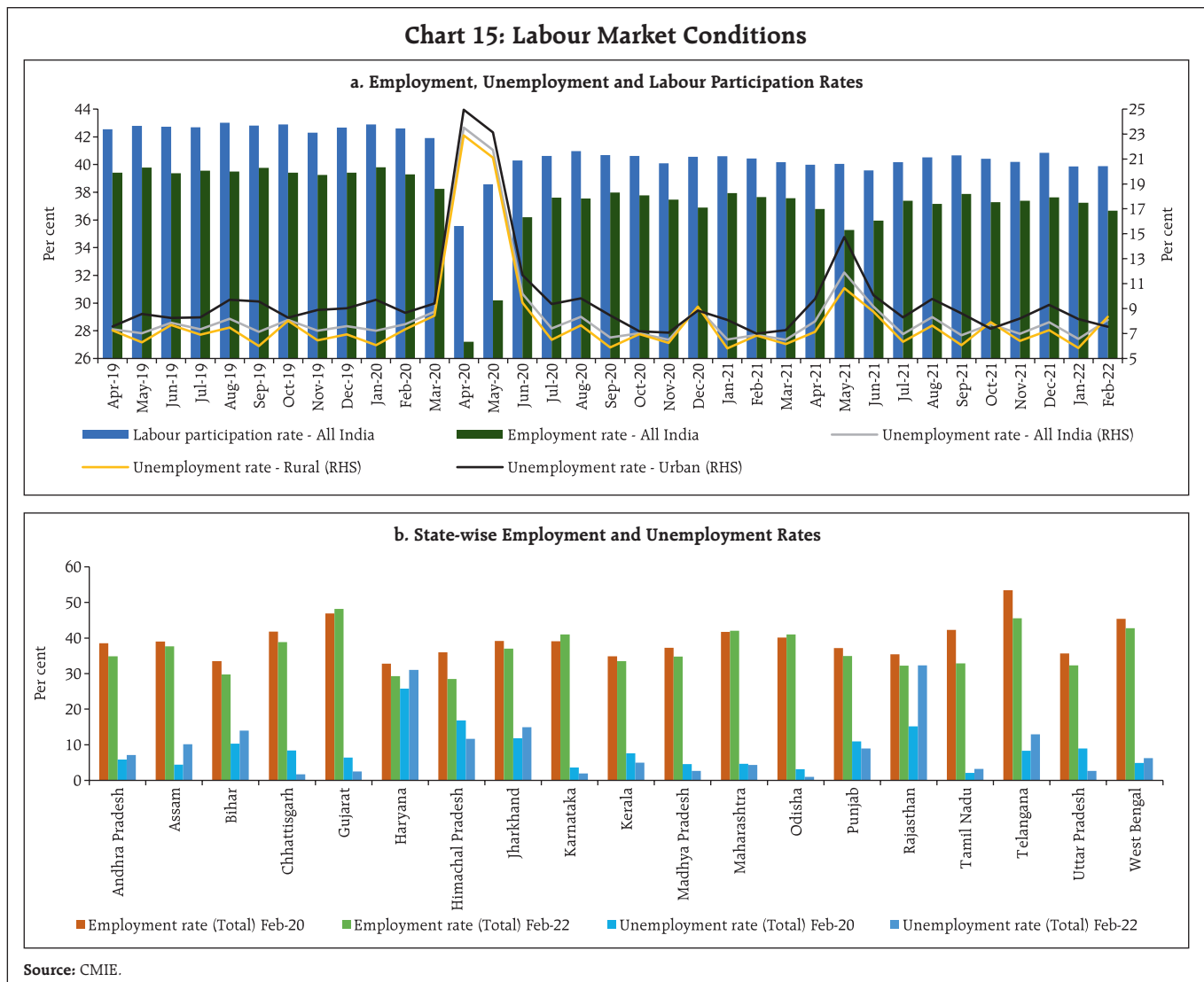
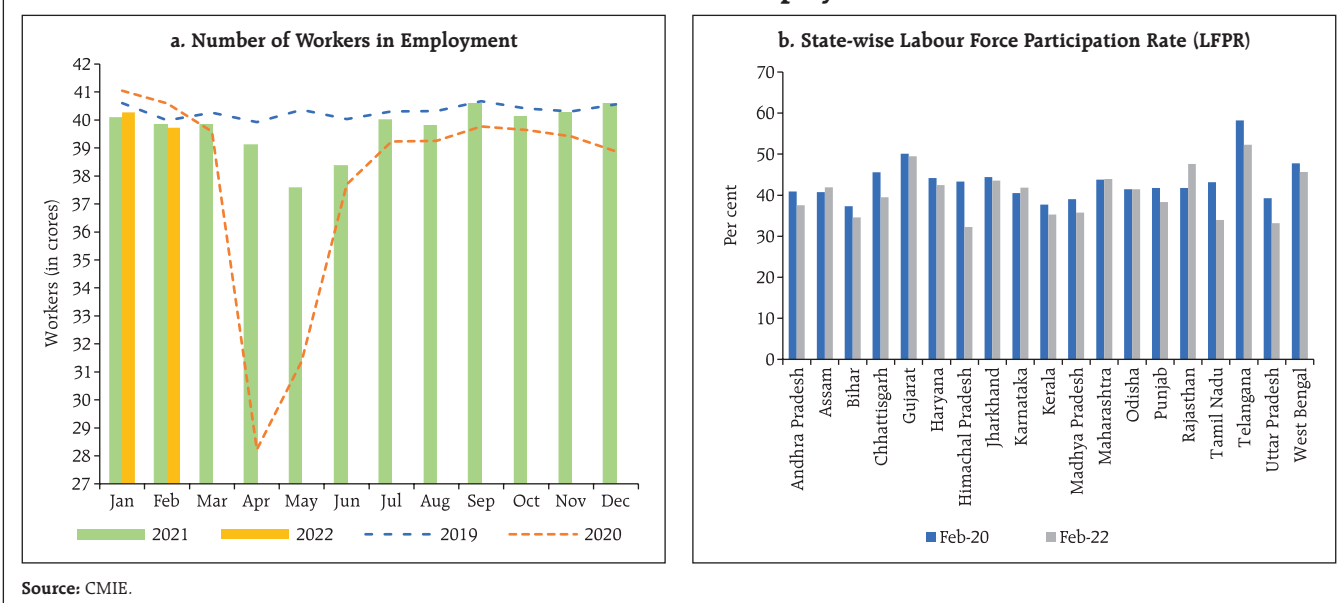


Chart 16: Number of Workers in Employment and LFPR



As per the CMIE's employment statistics, the labour market suffered further in February 2022 after a marginal fall last month. The fall in number of workers by 5.5 million in February over last month led to employed worker count below the level a year ago (Chart 16a). The labour force participation rate (LFPR) has, however, returned closer to pre-pandemic levels

across many states. Assam, Karnataka, Maharashtra and Rajasthan have witnessed LFPR rising above their pre-pandemic levels in February 2022 vis-à-vis February 2020 (CMIE) [Chart 16b].

PMIs show that employment under both manufacturing and services sector contracted for the third consecutive month in February 2022 (Chart 17).

Chart 17: PMI Employment Indices

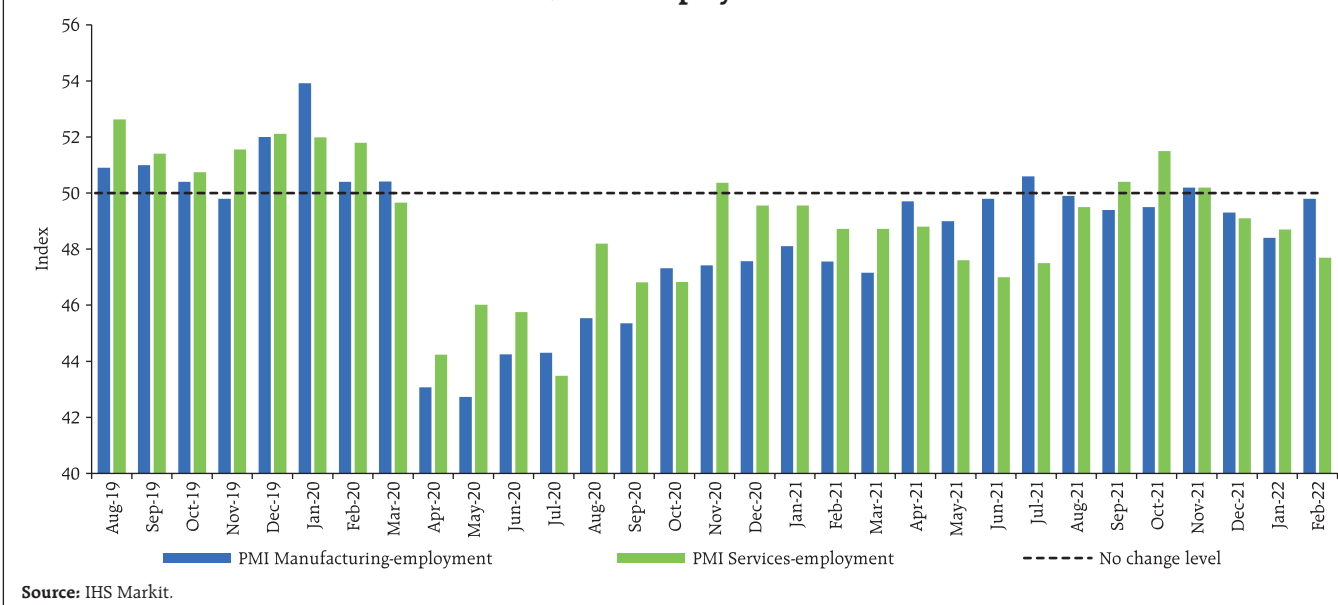
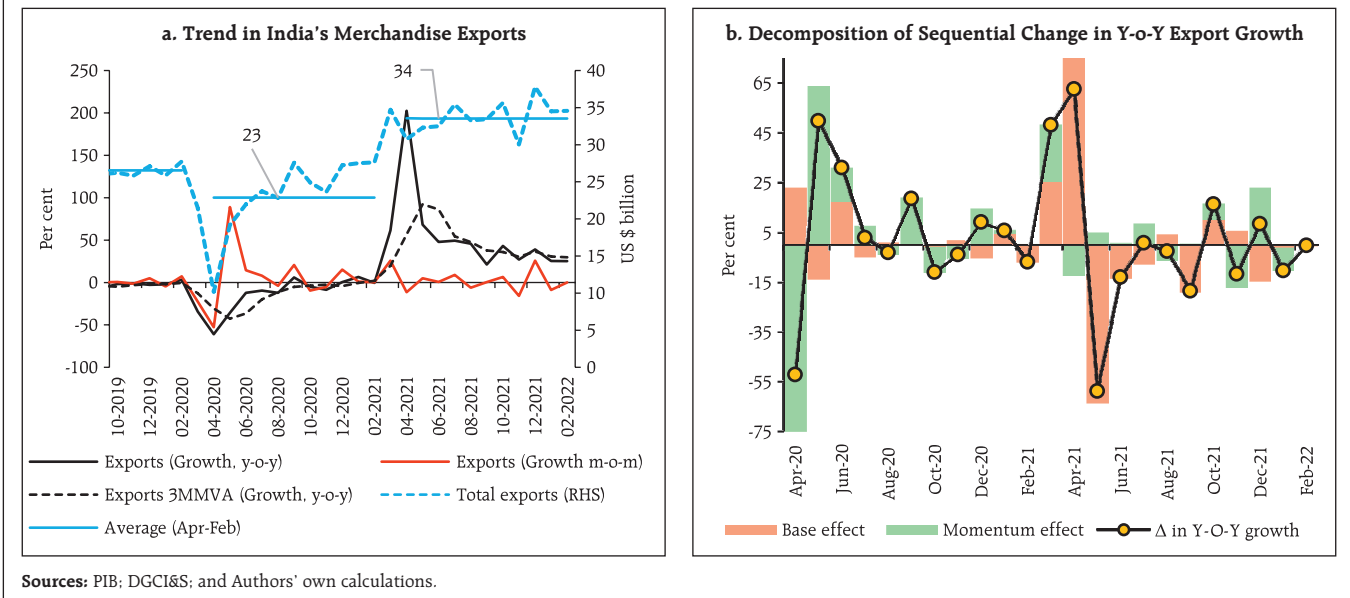


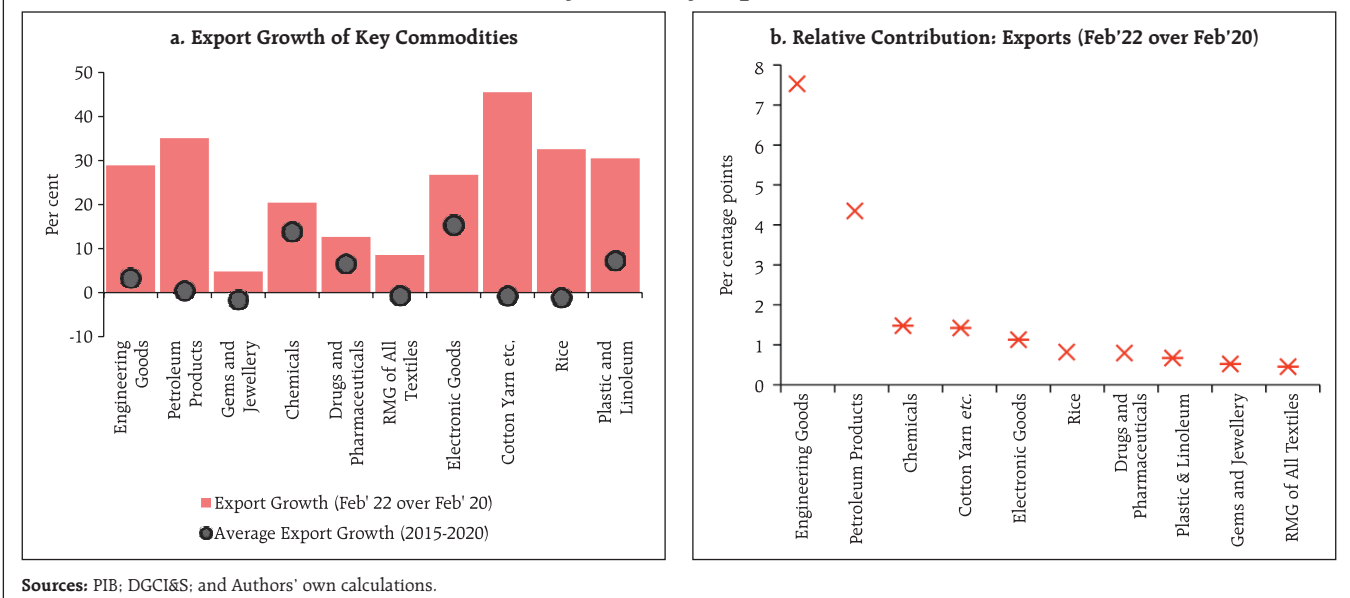
Chart 18: India's Merchandise Exports – February 2022



India's merchandise exports at US\$ 34.6 billion in February 2022 remained above US\$ 30 billion mark for the 12th consecutive month. Exports registered a growth of 25.1 per cent on a y-o-y basis and over pre-Covid levels (24.6 per cent) [Chart 18]. During April 2021 – February 2022, the merchandise exports stood at US\$ 374.8 billion, covering 93.7 per cent of the US\$ 400 billion export target set for 2021-22.

Export growth was broad-based, with ten major commodity groups accounting for around 80 per cent of exports of the expansion above pre-COVID level. (Chart 19a). The improvement in export performance stemmed from higher value of shipments of engineering goods, petroleum products and chemicals (Chart 19b).

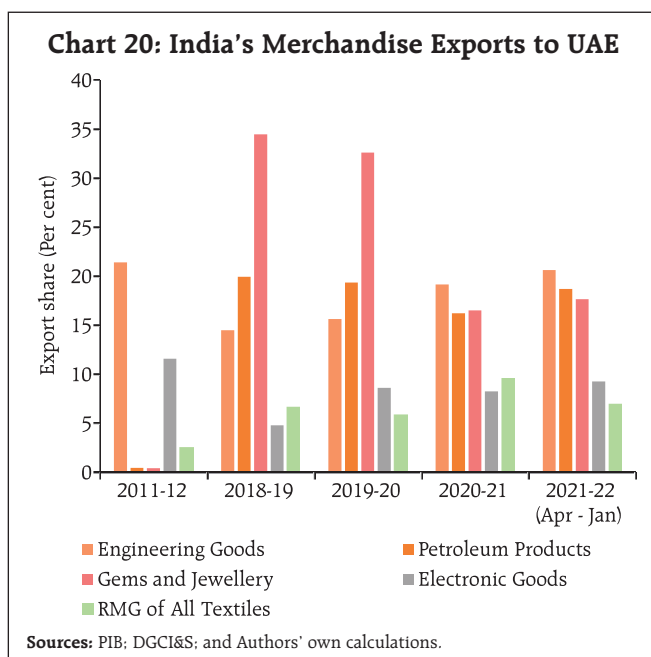
Chart 19: Analysis of Key Export Commodities



India has recently signed a Comprehensive Economic Partnership Agreement (CEPA) with the United Arab Emirates (UAE) to target bilateral trade at US\$ 100 billion over the next five years in key sectors such as gems and jewellery, textiles and leather. Over the last decade, the composition of exports to the UAE has broadened significantly, with a sharp rise in petroleum products and gems and jewellery exports (Chart 20).

Merchandise imports at US\$ 55.4 billion in February 2022 remained above US\$ 50 billion for the sixth consecutive month, registering a growth of 46.3 per cent over pre-pandemic levels (February 2020) [Chart 21]. Elevated crude oil prices are driving up India's import bill as the Russia-Ukraine conflict has accentuated supply-side concerns.

Robust import demand was driven by higher demand for petroleum products, electronic goods and gold (Chart 22a). Import growth was broad-based, with major commodity groups accounting for more than



75 per cent of imports recording an expansion above their pre-COVID levels (Chart 22b). Crude imports increased by 41.7 per cent in February 2022 over pre-Covid levels, reflecting the rise in crude oil prices.

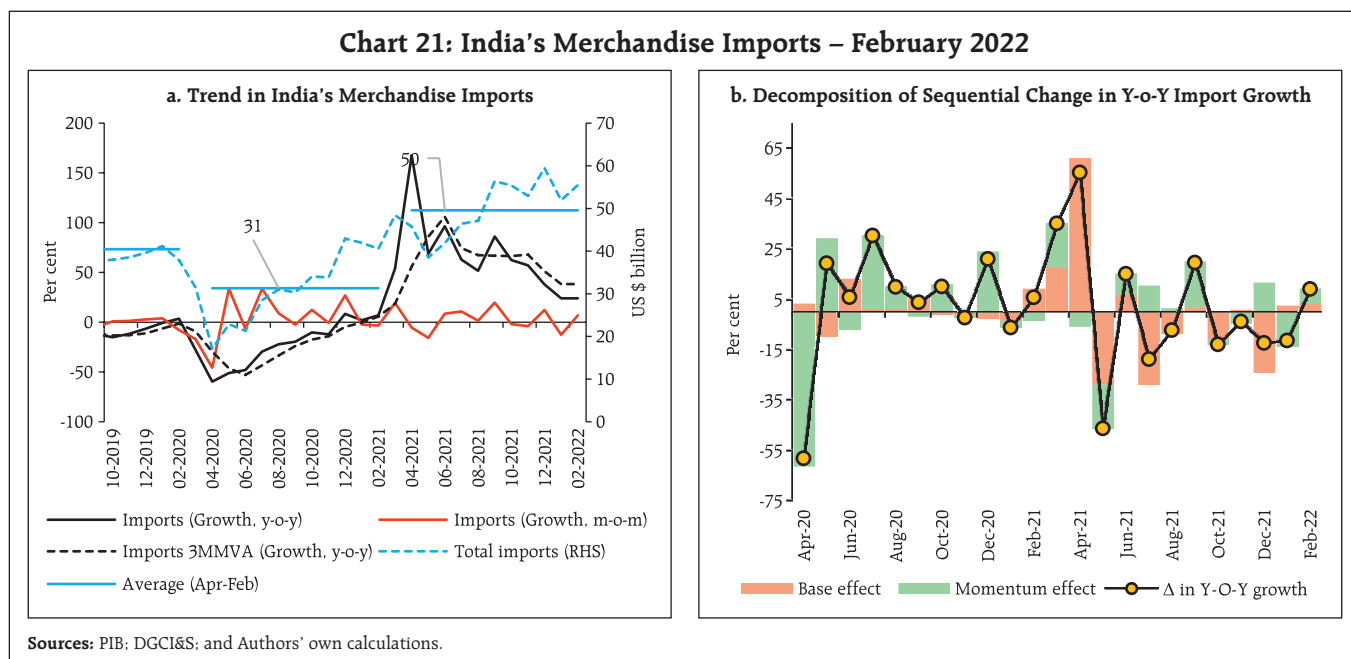
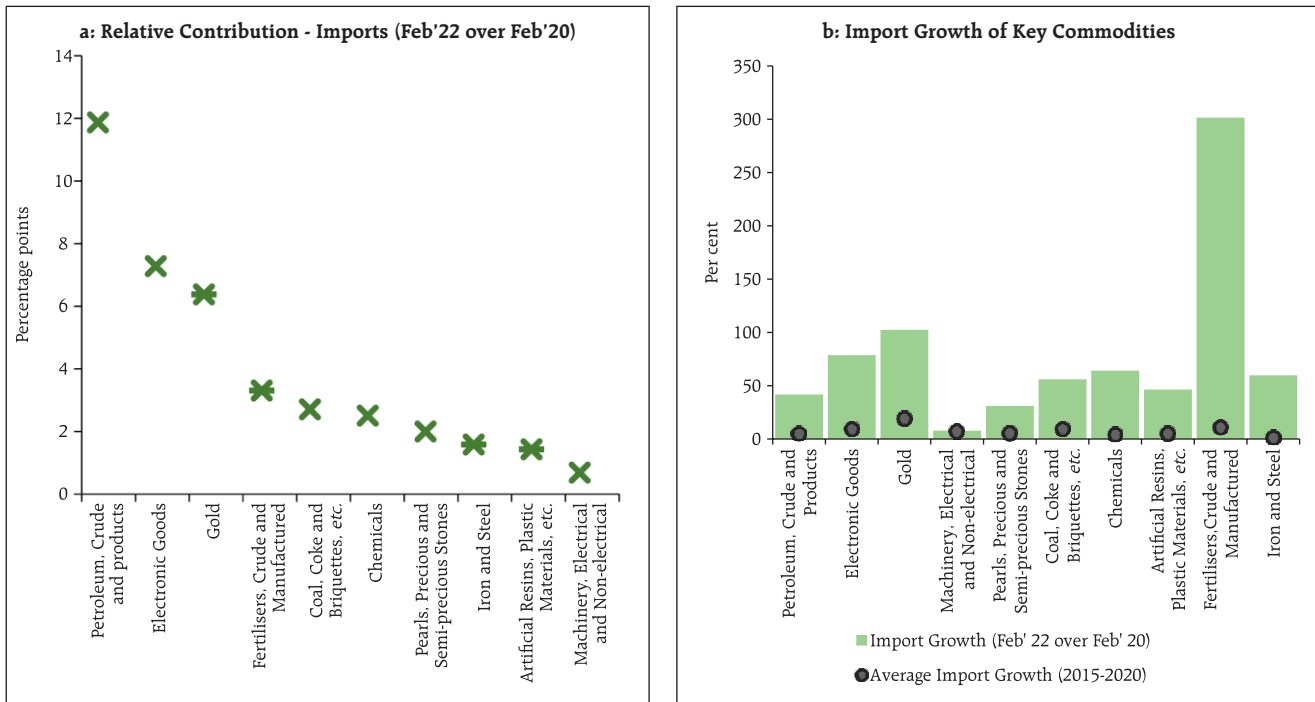


Chart 22: Analysis of Key Import Commodities

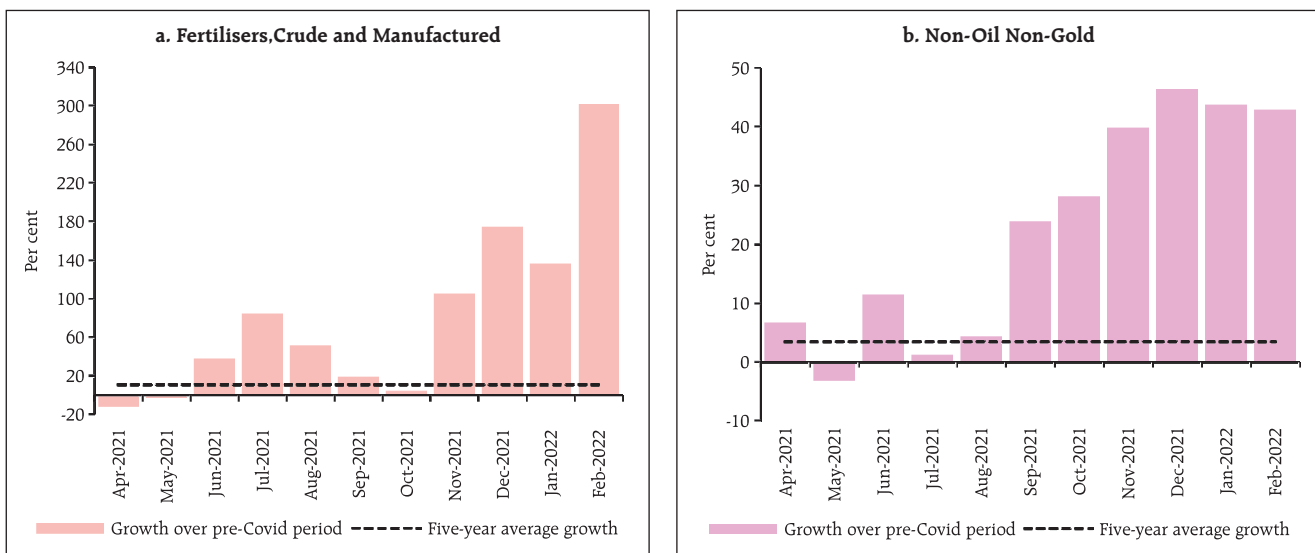


Sources: PIB; DGCIS; and Authors' own calculations.

The imports of fertilisers remained at a record level in February 2022 and expanded more than 301.6 per cent over the pre-pandemic period (Chart 23a).

Non-oil non-gold imports maintained strong growth for the ninth consecutive month in February 2022 over pre-Covid levels (Chart 23b).

Chart 23: Growth in Imports of Key Commodities (Growth over Pre-Covid Level)

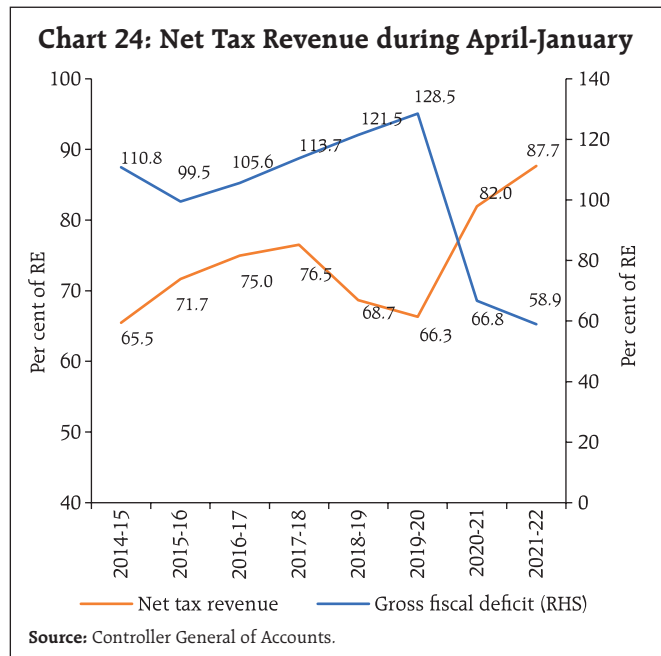


Sources: PIB; DGCIS; and Authors' own calculations.

As imports grew faster than exports, India's trade deficit (at US\$ 20.9 billion) in February 2022 increased, both sequentially (US\$ 17.9 billion in January 2022) as well as on a y-o-y basis (US\$ 13.1 billion in February 2021) and pre-Covid levels (US\$ 10.2 billion in February 2020).

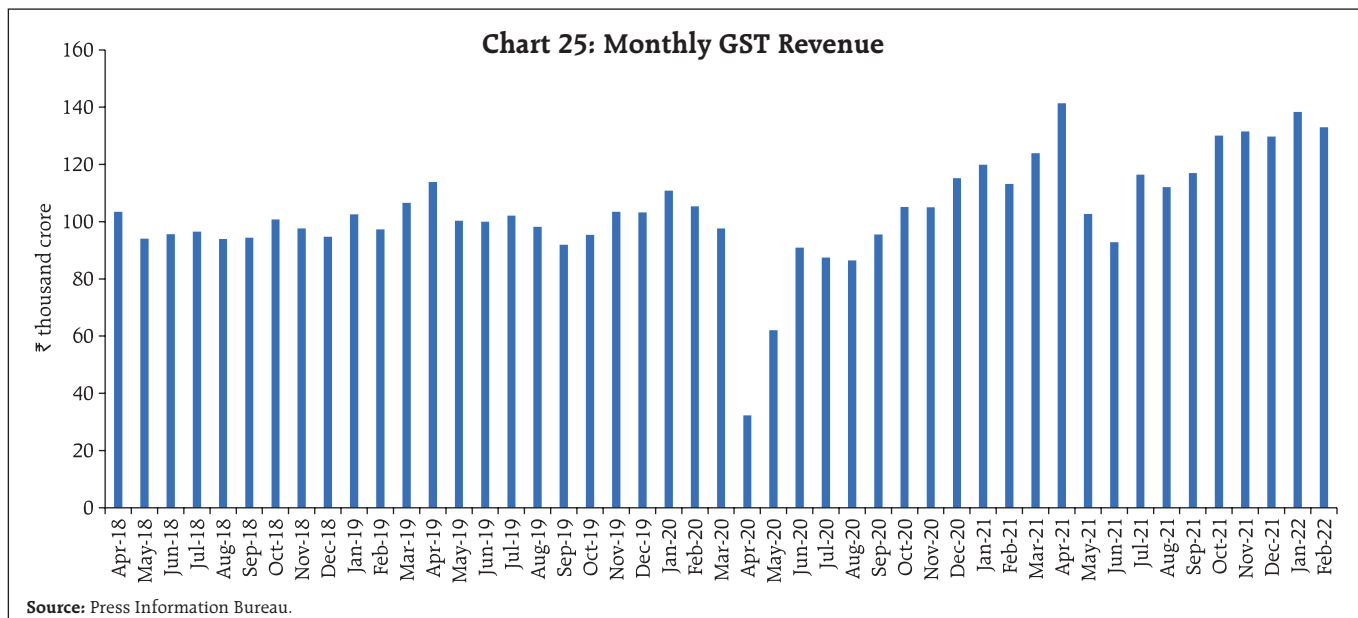
As per the provisional data released on India's services trade, India's services exports at US\$ 21.6 billion increased by 24.2 per cent in January 2022 (y-o-y). Net exports of services grew by 11.5 per cent during January (y-o-y). For 2022-23, the Services Export Promotion Council has set an export target of US\$ 300 billion for services sector.

The gross fiscal deficit for 2021-22 revised estimates (RE) stands at 6.7 per cent of GDP based on second advance estimates for 2021-22. During April-January 2021-22, the fiscal position of the Union government posted an improvement, with net tax revenues touching an all-time high of 87.7 per cent of RE. Total expenditure during April-January 2021-22 registered a growth of 11.6 per cent over 2020-21, with capital expenditure and revenue expenditure recording growth of 22.0 per cent and 9.9 per cent, respectively. The gross fiscal deficit plummeted to an all-time low of 58.9 per cent of RE during April-January 2021-22 (Chart 24). On March 14, 2022, the



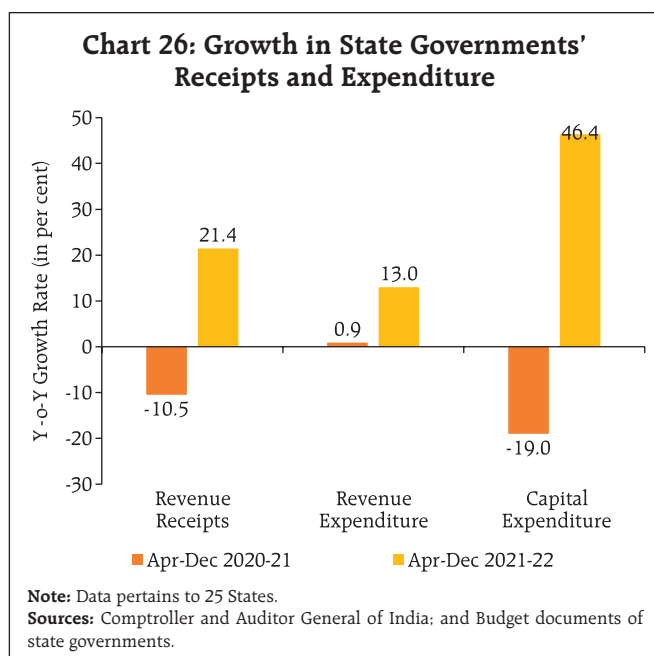
Union Government presented the third and last batch of Supplementary Demand for Grants for 2021-22, which proposes a net cash outgo of ₹1.07 lakh crore.

In February 2022, GST collection recorded a y-o-y growth of 17.6 per cent, crossing the ₹1.3 lakh crore mark for the fifth consecutive month in a row (Chart 25). GST cess collection crossed the ₹10,000 crore mark for the first time since its implementation.



As per the information available for 25 States, revenue receipts posted a robust growth of 21.4 per cent during April-December 2021 (against a decline of 10.5 per cent in April-December 2020), primarily driven by tax and non-tax revenue (Chart 26). The revenue receipts of the States need to grow at 29.4 per cent in Q4:2021-22 as compared with 32.3 per cent in the corresponding period of 2020-21 to meet the budgetary targets.

States' revenue expenditure and capital outlay grew by 13.0 per cent and 49.7 per cent, respectively, during April-December 2021. Additionally, the Centre enhanced the outlay under the 'scheme for financial assistance to States for capital investment' from ₹10,000 crore in the budget estimates to ₹15,000 crore in the revised estimates for 2021-22 to encourage capital spending. Furthermore, in addition to the regular instalment of tax devolution, the Centre has released two advance instalments of tax devolution in November 2021 and January 2022. States are likely to meet the residual growth of 12.8 per cent and 27.3 per cent in revenue and capital spending, respectively, in Q4:2021-22 (as against 40.1 per cent and 53.9 per cent in Q4:2020-21) to achieve budgeted expenditure.



Aggregate Supply

On the supply side, aggregate supply, as measured by the gross value added (GVA) at basic prices, increased by 8.3 per cent in 2021-22, as against a contraction of 4.8 per cent a year ago. Apart from the resilient agriculture sector, a sustained retrieval in both industrial and services sectors facilitated this acceleration. All sectors except trade, hotels, transport, communication and services related to broadcasting surpassed their pre-pandemic levels.

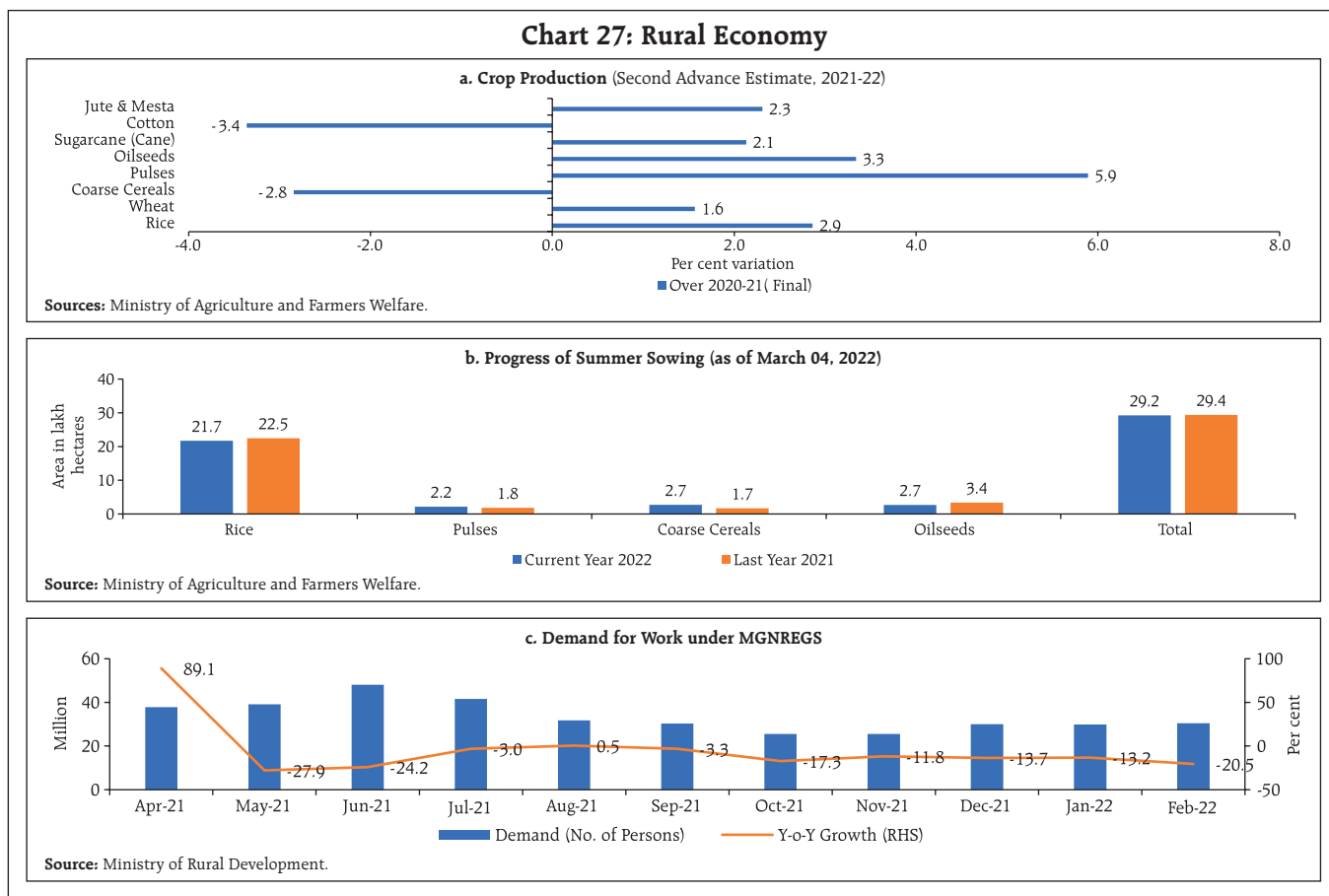
In the agriculture sector, record sown area contributed to a growth in production of *kharif* (2.0 per cent) as well as *rabi* (1.5 per cent) crops over a year ago (Chart 27a).

Summer or *zaid* season is a short intervening period between *rabi* and *kharif* starting from March till May. As of March 04, 2022, the total summer crop sown area stood at 29.2 lakh hectares which was 0.4 per cent less than the preceding year's level mainly due to low acreage under major crops, viz., rice (-3.5 per cent), and oilseeds (-20.7 per cent) (Chart 27b). The pace of planting is expected to regain a momentum in the coming weeks.

As on March 08, 2022, the overall procurement of rice during the ongoing *kharif* marketing season 2021-22 touched 489.2 lakh tonnes cumulatively, as against 451.9 lakh tonnes a year ago. The target for rice procurement in this complete season at 528.3 lakh tonnes. As per the quarterly buffer norms (January-March), stock levels for both rice and wheat stay comfortable (7.8 and 1.9 times respectively) as of mid-February 2022.

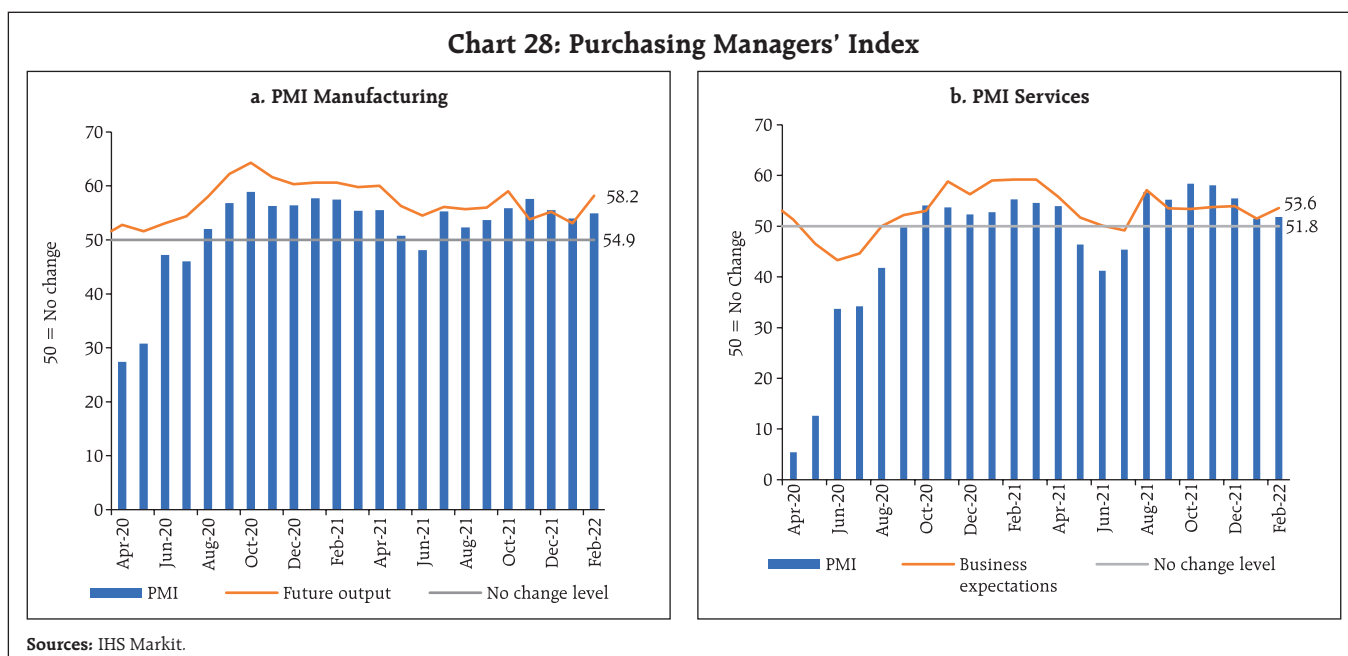
The demand for jobs under MGNREGS declined by 20.5 per cent (y-o-y) partly reflecting the ongoing *rabi* harvest operations in the rural hinterlands (Chart 27c).

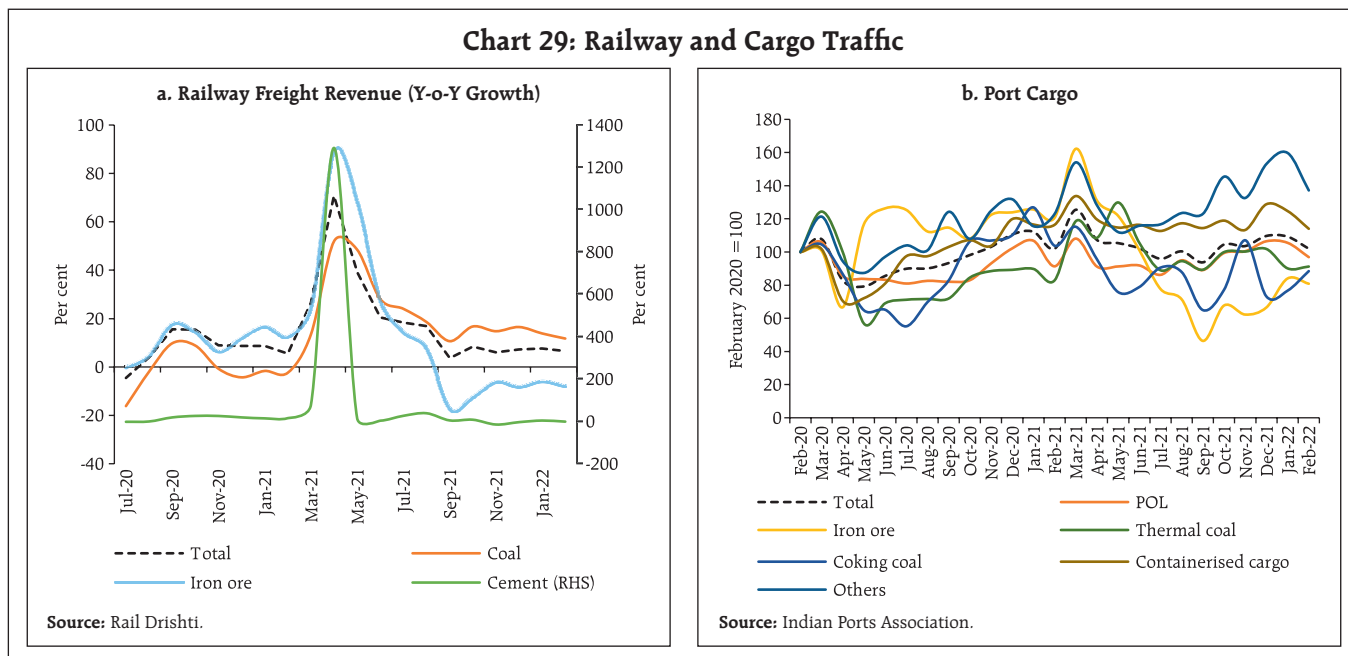
In the industrial sector, the headline manufacturing PMI at 54.9 remained in expansion mode in February 2022, increasing from 54.0 a month



ago. PMI services too remained in expansion mode at 51.8, with the expansion accelerating from 51.5 a month ago. The business expectations index (BEI) for

services expanded for the seventh successive month in February 2022, but the outlook remains clouded amidst elevated commodity prices (Chart 28).





In the services sector, transport indicators recorded growth, with railways freight traffic increasing by 6.6 per cent (y-o-y) in February 2022 *vis-à-vis* 5.5 per cent a year ago (Chart 29a). An increase in freight was recorded in coal, even as iron-ore and cement declined on a high base a year ago. Cargo at major ports recorded moderation in February, *albeit* at levels comparable to pre-pandemic readings. The moderation was attributable to a decline in commodities of containerised cargo and Port of Loading (POL) which together account for 67 per cent of total cargo (Chart 29b).

Activity in the construction sector continued to pick up during January-February 2022, with indicators of cement production and steel consumption recording expansion over the corresponding month in 2019 (Chart 30). Although cement production increased for the second consecutive month in January 2022, rising input costs remain a major deterrent to recovery in the sector.

The aviation sector posted recovery in February 2022. Daily domestic airport footfalls averaged 5.4

lakh per day – an expansion of 31.9 per cent over the preceding month. International airport footfalls also increased by 4.3 per cent sequentially, while the cargo segment increased by 0.1 per cent for domestic cargo and 6.0 per cent for international cargo. In the first fortnight of March, domestic airport footfalls increased by 44.6 per cent.

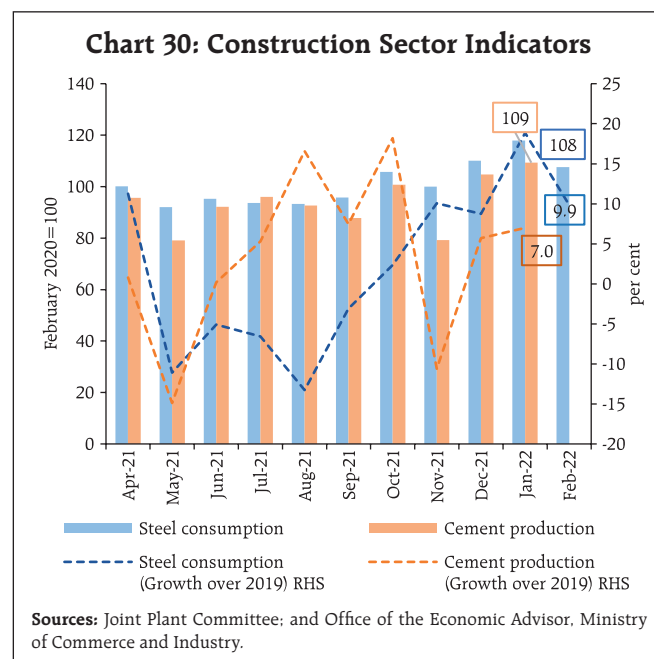


Table 2: High Frequency Indicators- Services

		High Frequency Indicators- Services Growth (y-o-y, per cent)						Growth over 2019			
Sector	Indicator	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Nov 21/ Nov 19	Dec 21/ Dec 19	Jan 22/ Jan 19	Feb 22/ Feb 19
Urban Demand	Passenger Vehicles Sales	-41.2	-27.1	-18.6	-13.3	-8.1	-6.5	-14.8	-1.5	-9.2	-3.4
Rural Demand	Two Wheelers Sales	-17.4	-24.9	-34.4	-10.8	-21.1	-27.3	-25.5	-4.2	-29.4	-35.7
	Three Wheelers Sales	53.8	19.1	-6.6	27.0	-8.5	-1.1	-59.7	-47.7	-55.4	-54.8
	Tractor Sales	-14.8	0.4	-22.5	-27.5	-32.6	-31.3	17.2	3.8	3.5	9.2
Trade, hotels, transport, communication	Commercial Vehicles Sales	24.5	0.9					-0.3			
	Railway Freight Traffic	3.6	8.4	6.1	7.2	7.7	6.6	15.6	16.5	20.1	19.7
	Port Cargo Traffic	0.5	6.3	-0.2	-0.4	-2.9	-2.7	3.9	4.0	3.7	8.8
	Domestic Air Cargo Traffic	10.1	6.7	-1.7	2.0	-6.1		-11.4	-1.1	-14.1	
	International Air Cargo Traffic	18.1	23.8	11.7	10.5	5.2		-5.0	-3.6	-10.3	
	Domestic Air Passenger Traffic	76.5	68.7	65.5	53.3	-16.2		-17.6	-12.5	-47.8	
	International Air Passenger Traffic	155.9	162.9	140.2	121.7	67.5		-58.6	-54.5	-61.2	
	GST E-way Bills (Total)	18.3	14.5	5.9	11.6	9.5	3.5	14.5	29.3	34.9	32.0
	GST E-way Bills (Intra State)	15.6	14.1	7.3	13.4	11.4	5.1	17.6	33.0	42.5	38.8
	GST E-way Bills (Inter State)	22.3	15.1	3.9	8.9	6.6	1.0	10.1	24.0	24.5	22.7
	Tourist Arrivals	278.8	337.0	255.0	235.5	140.4		-76.9	-75.2	-82.0	
Construction	Steel Consumption	-3.2	-3.8	-7.1	-7.4	0.6	-3.3	10.1	8.7	18.9	9.9
	Cement Production	10.8	14.5	-3.6	13.9	13.6		-10.6	5.7	7.0	
PMI Index	Manufacturing	53.7	55.9	57.6	55.5	54.0	54.9				
	Services	55.2	58.4	58.1	55.5	51.5	51.8				

Sources: CMIE; CEIC data; IHS Markit; SIAM; Airports Authority of India; and Joint Plant Committee.

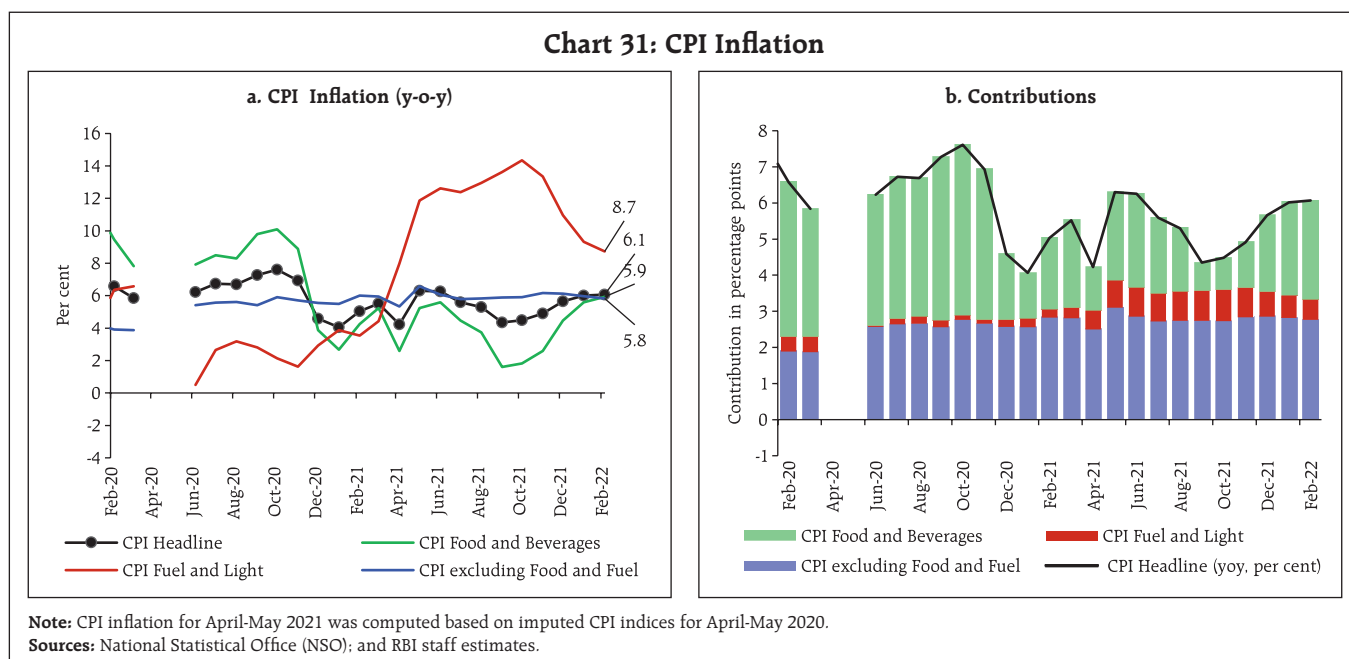
However, the contact intensive aviation and tourism sectors continue to lag. Decline in rural demand also impacted sales in the automobile sector, as contraction in two wheeler segment deepened (Table 2).

Inflation

Provisional CPI data for February released by the NSO on March 14, 2022 showed that headline CPI inflation (year-on-year) for the month of February 2022 edged up to 6.1 per cent from 6.0 per cent in January (Chart 31a). A positive price momentum (month-on-month change in prices in the current month) of 24 bps in February was partially offset

by favourable base effects (month-on-month change in prices a year ago) of 19 bps, resulting in a slight increase in headline inflation by 5 bps between January and February.

Food and beverages inflation was the main driver, rising to 5.9 per cent in February from 5.6 per cent in January. The decline in food price momentum by 12 bps was overwhelmed by an unfavourable base effect of 44 bps. In terms of sub-groups, inflation edged up in cereals, egg, meat and fish, vegetables and spices. On the other hand, inflation softened in edible oils, milk, non-alcoholic beverages and prepared meals while inflation in pulses, fruits and sugar remained steady.



For the fourth consecutive month, fuel inflation softened – it moderated by around 59 bps to 8.7 per cent in February from 9.3 per cent in January, primarily due to the moderation in LPG inflation, even as kerosene (PDS) inflation rose sharply. Electricity prices continued to remain in deflation in February. CPI fuel (weight of 6.84 per cent in the CPI basket) contributed around 9.6 per cent of headline inflation in February (Chart 31b).

CPI inflation excluding food and fuel¹ or core inflation registered a moderation of around 15 bps to 5.8 per cent in February from 6.0 per cent a month ago (Chart 31a). While inflation in pan, tobacco and intoxicants, recreation and amusement, health and transport and communication moderated, inflation in clothing and footwear, housing, household goods and services and education sub-groups edged up.

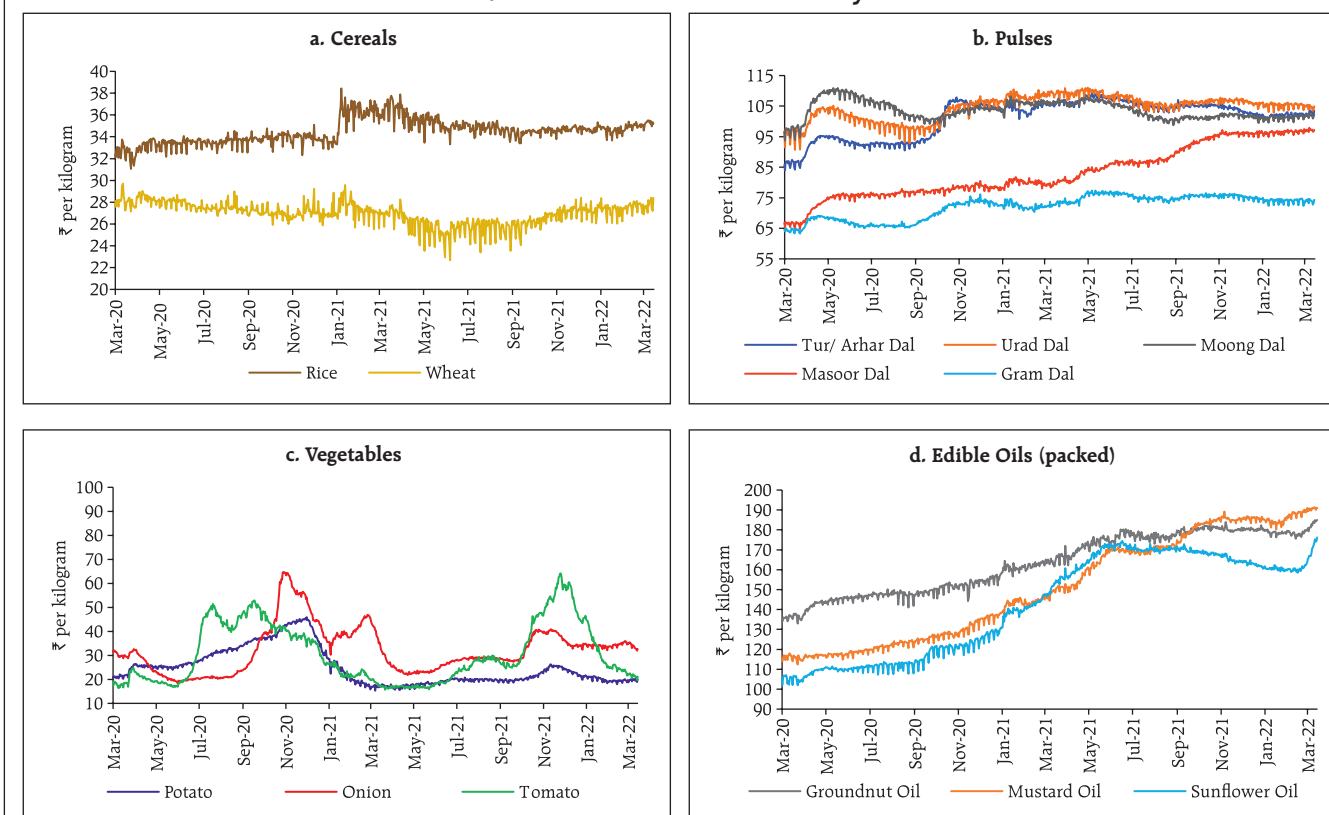
¹ CPI excluding food and fuel is worked out by eliminating the groups 'food and beverages' and 'fuel and light' from the headline CPI.

High frequency food price data from the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs) for March so far (March 1-14, 2022) indicate a marginal uptick in prices of cereals. Pulses prices have remained steady. Edible oils prices registered a broad-based increase. Prices of tomatoes and onions witnessed further seasonal price correction, while potato prices have increased in March so far (Chart 32).

Retail selling prices of petrol and diesel in the four major metros remained unchanged in March so far (March 1-14, 2022). Even though LPG prices remained steady, kerosene prices increased in the first half of March (Table 3).

Input costs rose further in February across manufacturing and services as reflected in the PMIs. Selling prices, however, rose only marginally across manufacturing and services in February.

Chart 32: DCA Essential Commodity Prices



Sources: Department of Consumer Affairs, GoI; and RBI staff estimates.

Table 3: Petroleum Products Prices

Item	Unit	Domestic Prices			Month-over-month (per cent)	
		Mar-21	Feb-22	Mar-22 [^]	Feb-22	Mar-22
Petrol	₹/litre	93.20	102.87	102.87	0.0	0.0
Diesel	₹/litre	85.11	90.51	90.51	0.0	0.0
Kerosene (subsidised)	₹/litre	29.37	42.17	46.87	15.4	11.2
LPG (non-subsidised)	₹/cylinder	829.63	910.13	910.13	0.0	0.0

[^]: For the period March 1-14, 2022.

Note: Other than kerosene, prices represent the average Indian Oil Corporation Limited (IOCL) prices in four major metros (Delhi, Kolkata, Mumbai and Chennai). For kerosene, prices denote the average of the subsidised prices in Kolkata, Mumbai and Chennai.

Sources: IOCL; Petroleum Planning and Analysis Cell (PPAC); and RBI staff estimates.

IV. Financial Conditions

In alignment with the accommodative monetary policy stance reiterated by the Monetary Policy Committee (MPC) on February 10, 2022, daily liquidity absorptions under the liquidity adjustment facility (LAF) averaged ₹8.4 lakh crore in the second half of February through March 2022 (up to March 13), widening from ₹7.4 lakh crore during the second fortnight of January to mid-February 2022. Increased government spending became the principal autonomous driver of liquidity in this period, despite higher leakage in the form of currency in circulation on account of state elections and *rabi* harvesting season. The average daily absorption under the fixed rate

reverse repo window stood at ₹1.7 lakh crore while the bulk of total absorption was effected through the variable rate reverse repo auctions (both main and fine-tuning), reflecting liquidity rebalancing through migration of surplus liquidity towards longer tenors (Chart 33a).

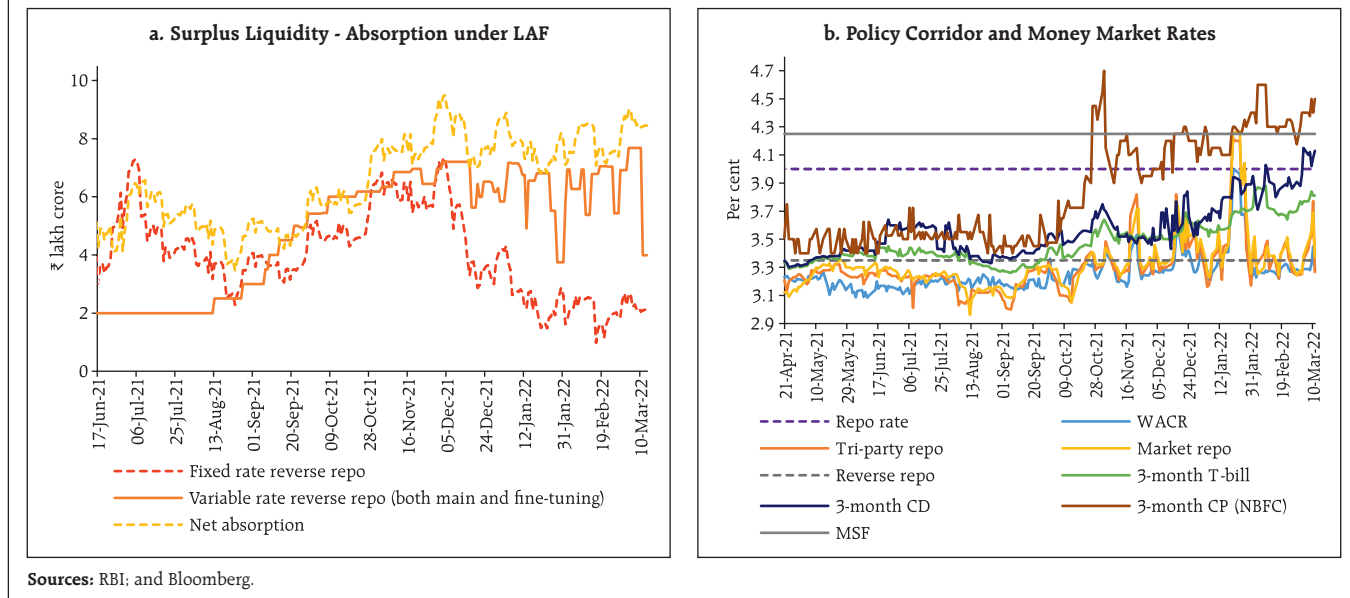
The liquidity surplus in the banking system pulled down overnight money market rates, with the weighted average call rate (WACR), the tri-party repo and the market repo rate close to the reverse repo rate. Interest rates on longer term money market instruments such as 3-month T-bill and certificates of deposit (CDs), however, remained higher, with their respective spreads over the reverse repo rate averaging 38 bps and 60 bps during the second fortnight of February through March 11, 2022. Similarly, the 3-month commercial paper (CP)-NBFC rates stayed elevated above the marginal standing facility (MSF) rate (Chart 33b). Robust primary market activity in the CD and CP markets has kept rates higher. With the revival in the credit cycle, fund mobilisation through CD issuances surged through November 2021-January

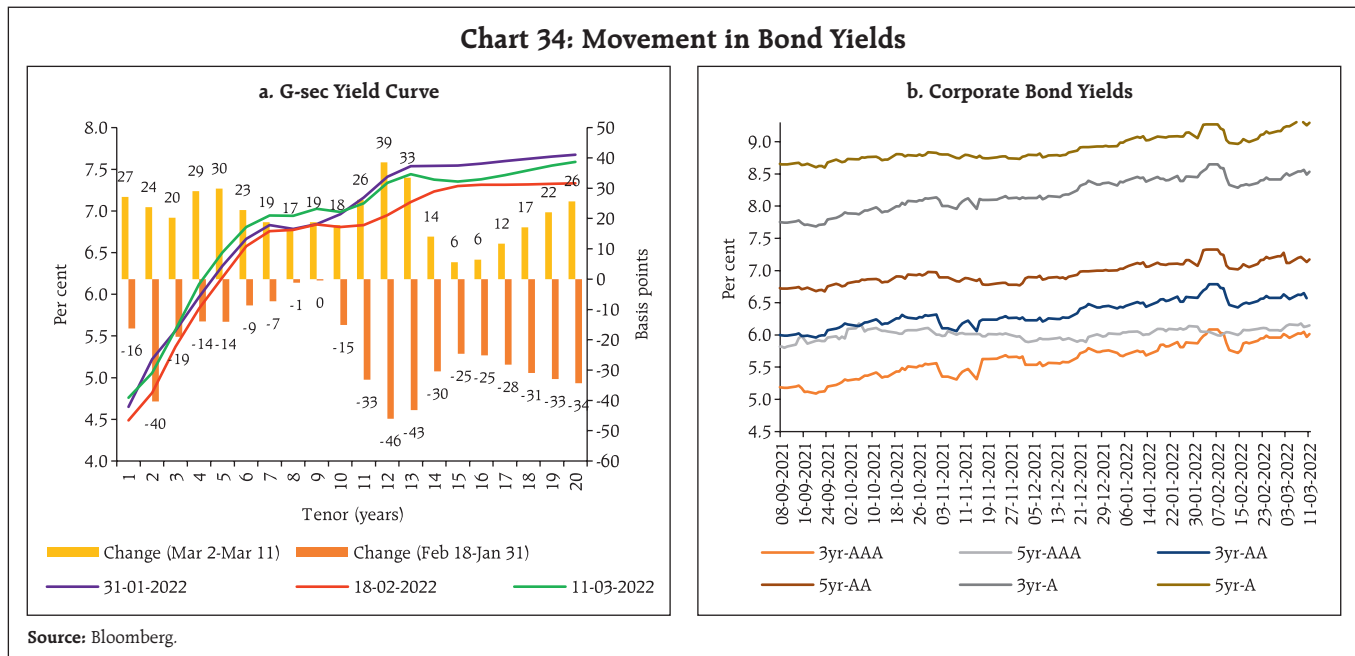
2022 to ₹65,298 crore from ₹61,983 crore during April-October 2021.

The bond market pared the gains witnessed after the cancellations of weekly auctions. The yield on the 10-year benchmark G-sec hardened to 6.86 per cent on March 11, 2022 from a low of 6.6 per cent observed on February 18 (Chart 34a). The relentless surge in global crude oil prices amidst escalating geopolitical tensions from the Ukraine conflict spooked market sentiments. In the primary market, the government completed its borrowing programme for 2021-22 with the last weekly auction conducted on February 25. Corporate bond yields hardened, tracking the movement in G-sec yields (Chart 34b).

Turning to overall monetary and credit conditions, reserve money (RM), excluding the first-round impact of the cash reserve ratio (CRR) restoration, grew at 8.9 per cent y-o-y as on March 11, 2022 (16.3 per cent a year ago) with currency in circulation, the largest constituent of RM, maintaining the same growth rate (19.2 per cent a year ago). Money supply (M₃) expanded by 8.7 per cent as on February 25, 2022 (12.8 per cent a

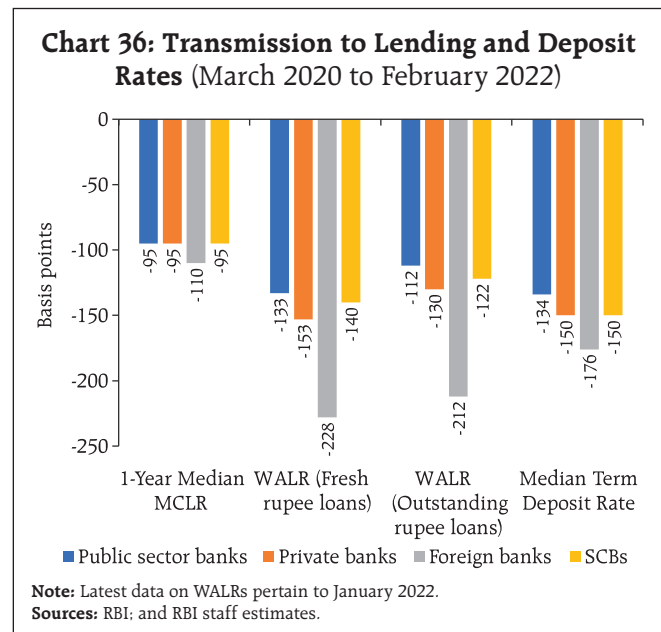
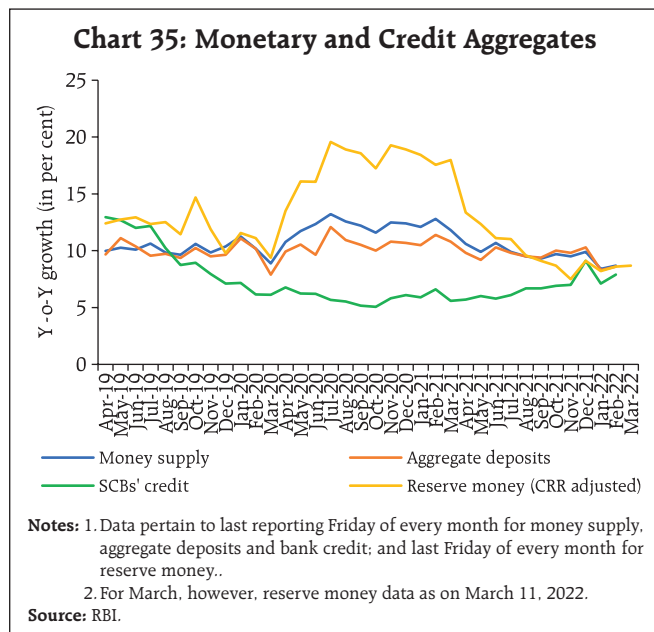
Chart 33: Liquidity and Money Market Rates





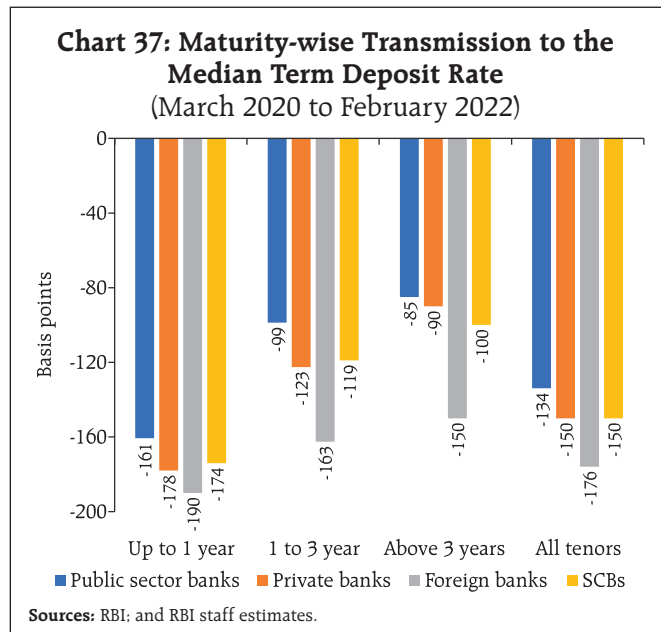
year ago), primarily driven by the growth in aggregate deposits with banks at 8.6 per cent (11.4 per cent a year ago). The growth in scheduled commercial banks' (SCBs)' credit to the commercial sector, which crossed the 7.0 per cent level in November 2021 for the first time since April 2020, rose to 7.9 per cent on February 25, 2022 (6.6 per cent a year ago) [Chart 35].

Since March 2020, the one-year median marginal cost of funds-based lending rate (MCLR) of SCBs softened cumulatively by 95 bps. In response to the repo rate cut of 115 bps, the weighted average lending rates (WALRs) on fresh and outstanding rupee loans declined by 140 bps and 122 bps, respectively, during the period March 2020 to January 2022 (Chart 36).

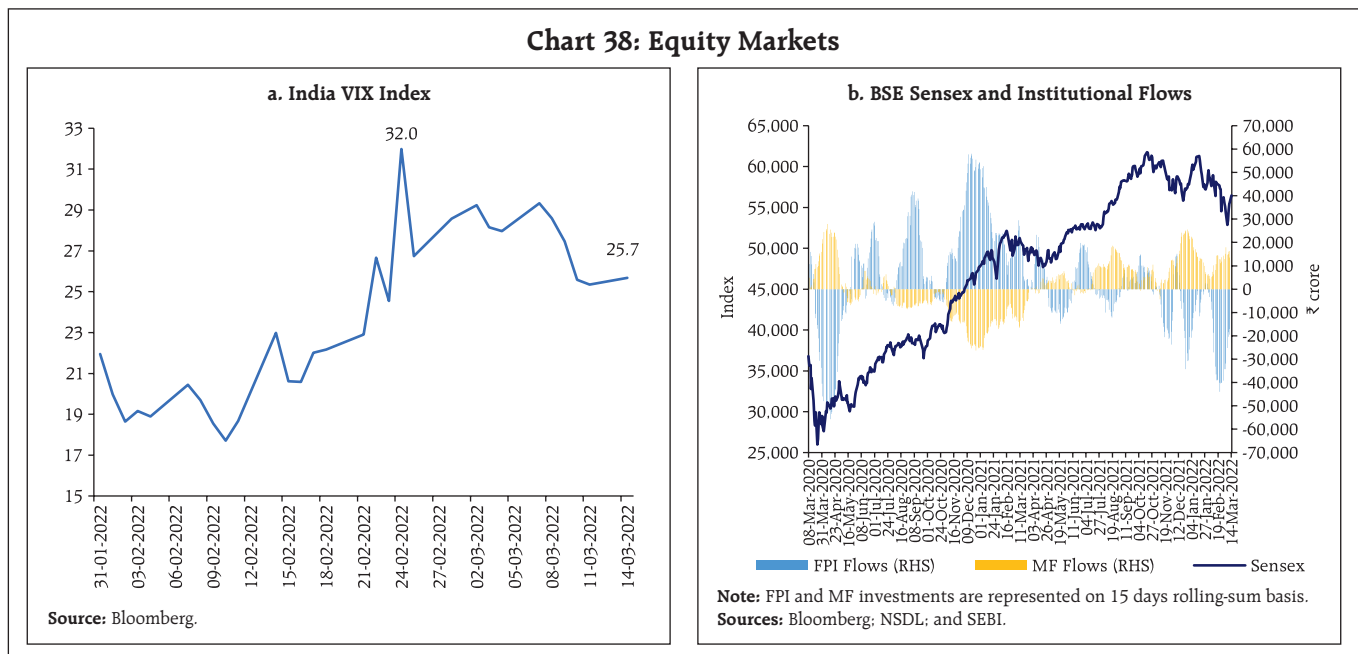


With credit offtake picking up, some SCBs have raised interest rates on term deposits. The extent of pass-through of policy rate reduction to the median term deposit rate (MTDR) which remained 154 bps during the period March 2020 to September 2021, dipped marginally to 150 bps in February 2022. The perceptible decline of 174 bps is discernible in the case of short tenor deposits of maturity of up to one year. Across domestic banks, robust deposit growth has enabled higher pass-through by private banks to term deposit rates compared to their public sector counterparts (Chart 37).

Interest rates on small saving schemes are administered and set by the Government of India. These administered interest rates are linked to market yields on G-secs with a lag and are fixed on a quarterly interval at a spread ranging from 0-100 bps over and above G-sec yields of comparable maturities. The Government of India is expected to review interest rates on small saving instruments (SSIs) for Q1:2022-23 on March 31, 2022. The existing rates of interest on SSIs need to be reduced in the range of 9-118 bps for Q1:2022-23 to align them with the formula-based rates.



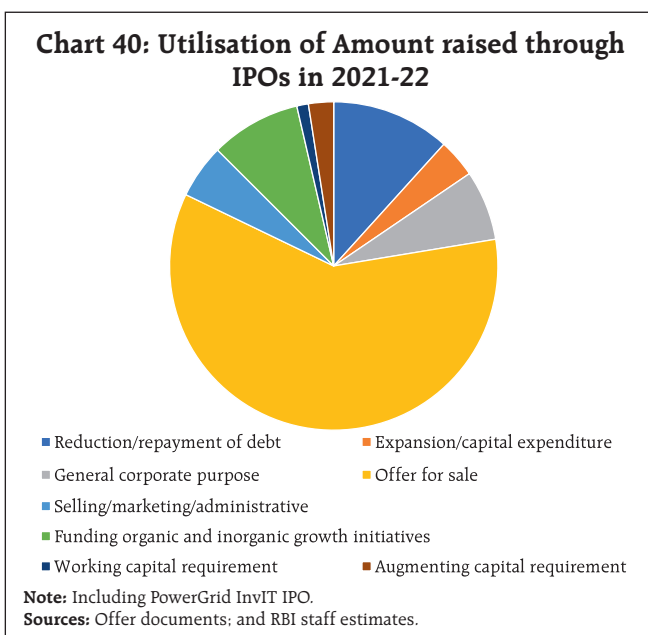
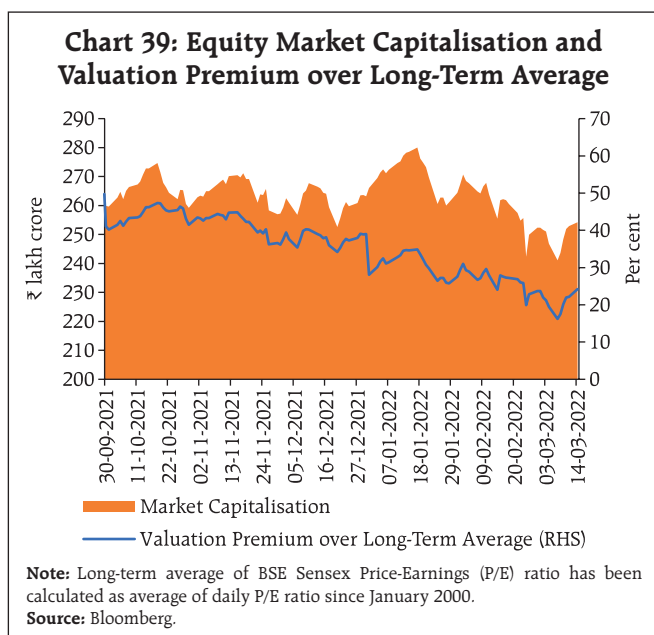
In February 2022, domestic equity markets were embroiled by developments surrounding the Russia-Ukraine conflict, in tandem with the movements in global equity markets (Chart 38). Domestic equity market tumbled persistently in the second half of the month, recording a sharp sell-off on February 24, 2022.



Domestic equities continued to remain under pressure and recorded further correction in early March as concerns over spillover effects of the war in Ukraine and a sharp jump in crude oil prices weighed on market sentiment. Thereafter, markets recovered amidst marginal moderation in commodity prices. Overall, the BSE Sensex has lost 2.6 per cent since end-January to close at 56,486 on March 14, 2022.

Following the recent correction in equities and resilient growth in corporate earnings, the price-to-earnings (P/E) ratio of the BSE Sensex declined and the valuation premium over its long-term average has moderated. The market capitalisation of BSE listed companies on February 24, 2022 fell to its lowest level since August 26, 2021 (Chart 39).

In the primary markets, companies raised ₹1.38 lakh crore through 148 public/rights issues so far (up to February 2022). An analysis of mainboard initial during the public offerings (IPOs) that raised funds in this financial year reveals that while a substantial portion of the amount raised has been *via* Offer for Sale (OFS), primary mobilisation enabled companies to reduce debt and finance growth requirements (Chart 40).

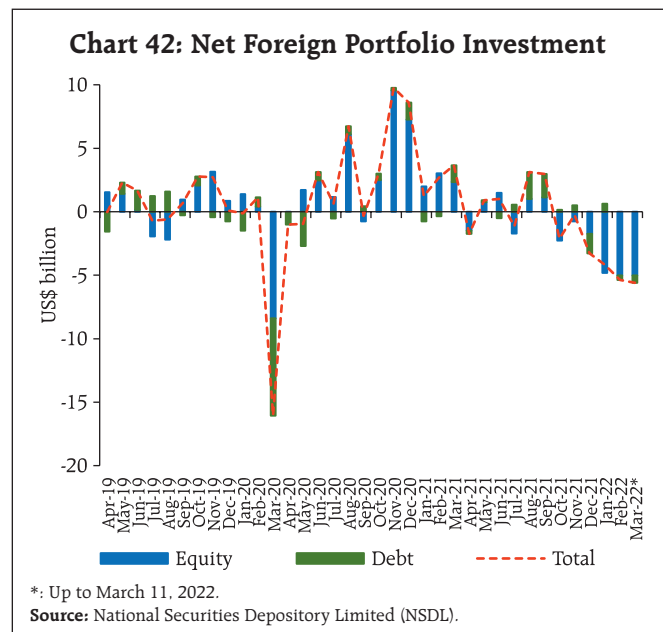
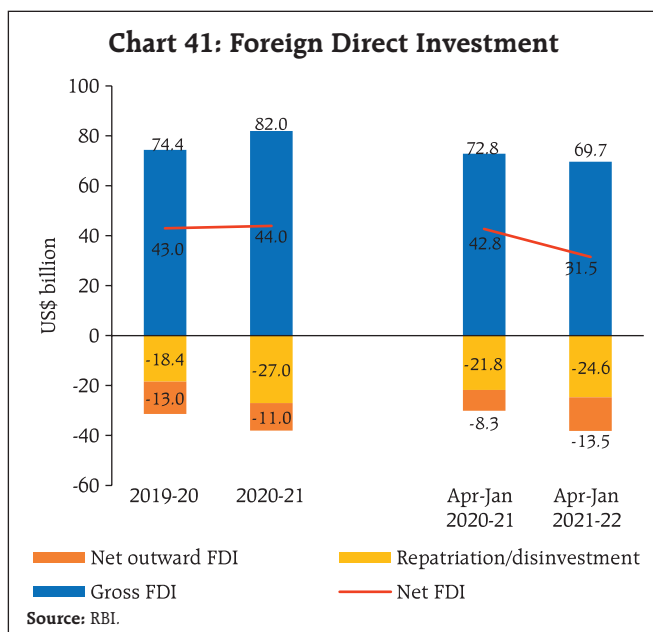


The Draft Red Herring Prospectus of the much-anticipated IPO of the Life Insurance Corporation of India (LIC) was filed with the market regulator recently, indicating an OFS of up to 3,16,249,885 equity shares worth 5 per cent stake. The LIC IPO is set to be the biggest IPO ever in India, and hence, correct timing of the IPO is crucial. With 35 per cent of the issue size reserved for retail investors, their response is critical for the success of the LIC IPO. Recently, there has been a rise in retail participation in domestic equity markets, which could be gauged by 289 lakh new demat accounts opened this fiscal year (April-January 2022). The LIC IPO presents a fresh opportunity to deepen the equity markets' reach further². LIC's huge policyholder base has the potential to bring large number of new investors to the capital markets who have historically relied on traditional saving products. The deepening of capital markets is also vital for divestment plans of the government, and therefore, it is important to inculcate investors' trust in key market infrastructure institutions.

² <https://www.financialexpress.com/market/ipo-news/lic-ipo-takes-equity-cult-deeper-in-india/2443069/>

Riding on the back of robust fresh equity investments, net foreign direct investment (FDI) increased substantially to US\$ 5.9 billion in January 2022 (US\$ 1.5 billion in January 2021), which was much higher than cumulative inflows of US\$ 4.4 billion in Q3:2021-22. During 2021-22 (April-January), gross FDI inflows were robust at US\$ 69.7 billion (Chart 41). Net FDI was US\$ 31.5 billion as compared with US\$ 42.8 billion a year ago, reflecting rising outward FDI from India. Manufacturing, computer services, communication services, financial services, and retail and wholesale trade sectors received most of the investment and accounted for 70.4 per cent of total equity inflows in 2021-22 (April-January).

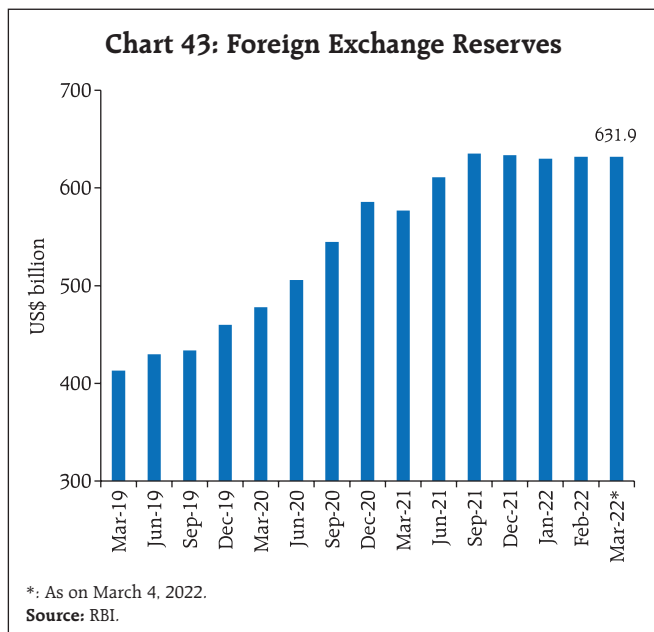
Foreign portfolio investors (FPIs) continued to pull funds out of the domestic market amidst escalating geopolitical tensions, increasing crude oil prices and US bond yields. While the equity segment recorded an outflow for the fifth consecutive month in February, FPIs turned net sellers in the debt market in February, after being net buyers during January. Net FPI outflows from the domestic market were to the tune of US\$ 5.4 billion in February 2022 (Chart 42).



Net disbursements of external commercial borrowings (ECB) to India, excluding inter-company borrowings, increased to US\$ 4.8 billion during January 2022 after registering net repayments during Q3:2021-22. Net disbursements including inter-company borrowings at US\$ 5.6 billion were higher than US\$ 2.2 billion in January 2021. During January 2022, a considerable amount of borrowing was used for working capital, on-lending/sub-lending and refinancing of earlier ECB.

The foreign exchange reserves increased by US\$ 1.9 billion during February 2022 after recording contraction for three successive months. At US\$ 631.9 billion on March 4, 2022, they stood equivalent to about 12.4 months of imports projected for 2021-22 (Chart 43).

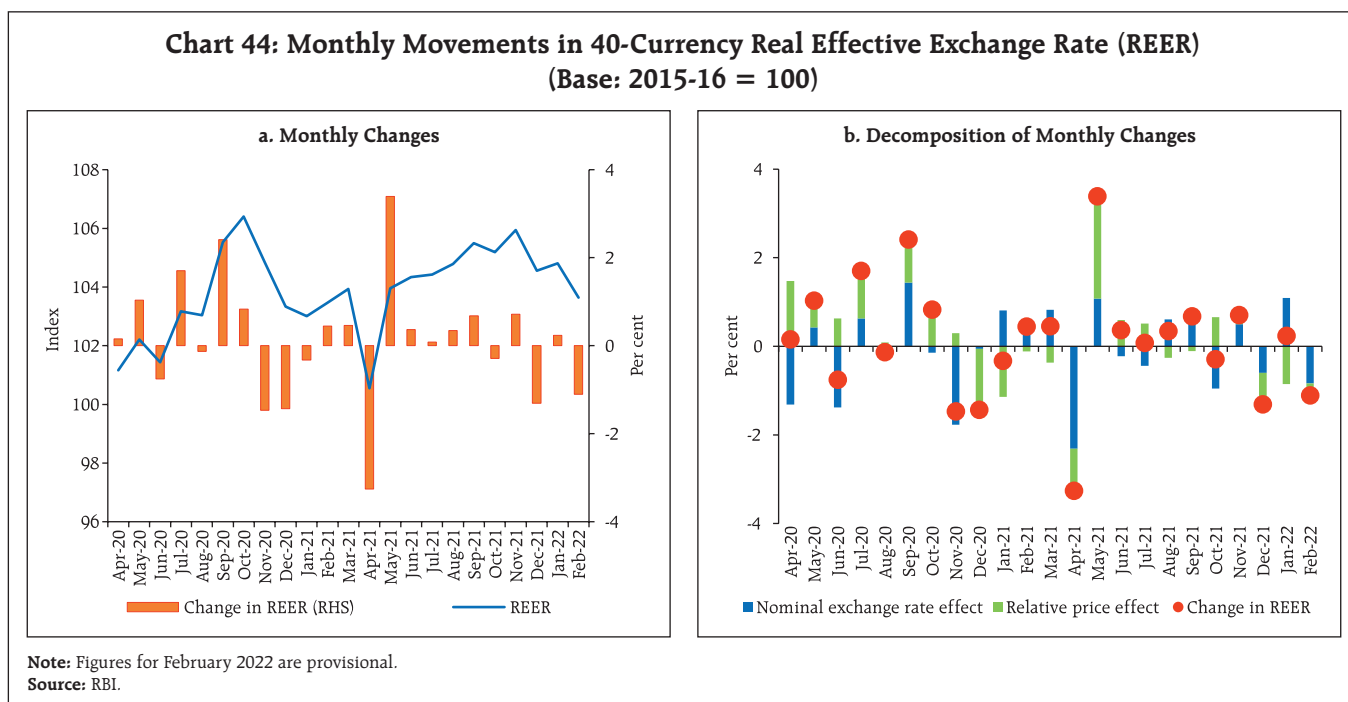
In the foreign exchange market, the Indian rupee (INR) depreciated against the US dollar in February 2022 by 0.7 per cent (m-o-m) amidst surging demand for the US dollar on FPI outflows and hardening crude oil prices. The INR fell to an all-time low of ₹76.92 per US dollar on March 7, 2022 when crude oil prices reached the highest level since the global financial crisis of 2008. The depreciation of the Indian rupee



was reflected in the movements of the INR in both nominal and real effective terms (40-currency basket), which depreciated by 0.8 and 1.1 per cent, respectively, in February 2022 over its level a month ago (Chart 44a and 44b).

Payment Systems

Digital payments continued to register robust growth in February and March 2022 (up till 11th March). Large-value transactions through the Real Time Gross Settlement (RTGS) sustained double-digit growth (y-o-y), both in volume and value terms in tandem with the economic recovery that is underway. Retail payments expanded strongly across the payment modes (Table 4). The Unified Payments Interface (UPI) sustained near 100 per cent growth in volume and value of transactions. The National Electronic Funds Transfer (NEFT), the Immediate Payment Service (IMPS), and the National Automated Clearing House (NACH) also demonstrated remarkable growth. Transactions under the Bharat Bill Payment System (BBPS) clocked a triple-digit growth in volume and value while the National Electronic Toll Collection (NETC) grew consistently. Displaying resilience in consumer and business spending amidst the third wave, the average ticket size of card transactions³ exhibited a growth of 22.5 per cent. Due to improvements in



³ It is obtained by dividing the total value of transactions done through credit cards and debit cards by the total number of transactions through both types of cards.

Table 4: Growth Rates in Selected Payment Systems

	Transaction Volume Growth (Y-o-Y, per cent)				Transaction Value Growth (Y-o-Y, per cent)			
	Jan-2021	Jan-2022	Feb-2021	Feb-2022	Jan-2021	Jan-2022	Feb-2021	Feb-2022
RTGS	14.1	15.7	18.4	14.3	-7.2	13.9	0.7	14.1
NEFT	10.3	26.2	13.6	28.8	12.3	12.8	15.1	15.1
UPI	76.5	100.5	73.0	97.5	99.4	93.0	91.0	94.5
IMPS	33.5	27.0	28.7	32.0	33.1	34.1	28.3	39.7
NACH	-14.6	28.8	-18.4	28.0	11.6	26.4	-1.3	30.2
NETC	60.4	54.8	44.3	53.3	48.1	50.0	38.8	42.0
BBPS	84.0	130.2	89.1	121.2	106.0	148.8	115.7	136.2

Source: RBI.

cashflows of businesses with the ebbing of the third wave, NACH debit bounce rates⁴ were down by 400 bps to 23.4 per cent by value in January 2022 year-on-year⁵. This may be indicative of a reduction in credit delinquency rate. Data for digital payments infrastructure (as of January 2022) showed a steady growth in the number of static UPI Quick Response (QR) codes, and prepaid payment instrument (PPI) wallets and cards. With the interoperability of PPIs through UPI and card networks on the anvil, the resultant synergy is expected to manifest in accelerated growth in transactions through these modes.

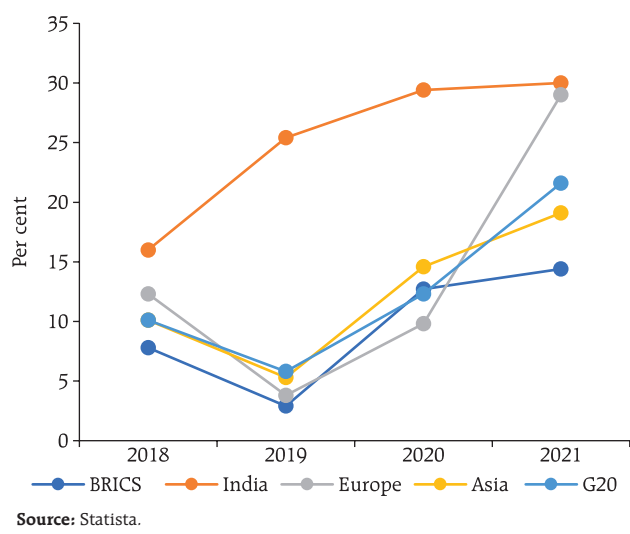
Compared to various regions of the world, India's annual growth in digital commerce transaction value⁶ has been consistently higher since 2018 (Chart 45). In 2021, India's digital commerce transactions growth at 30 per cent was 760 bps higher

⁴ NACH is a web-based solution to facilitate interbank, high volume, electronic transactions which are repetitive and periodic. NACH debits include EMI, insurance premia, etc. The bounce rate is the percentage of unsuccessful auto-debit transactions.

⁵ <https://www.npci.org.in/what-we-do/nach/product-statistics/2021-22/mtd-nach-analytics>

⁶ The digital commerce segment covers all consumer transactions made via the internet, which are directly related to online shopping for products and services. Online transactions can be made via various payment methods. Payments not relating to the purchase of goods and services on the e-commerce platforms are excluded.

Chart 45: Global Comparison of India's Digitalisation: Growth in Digital Commerce Transaction Value



than global growth⁷. Startups played a crucial role in shaping India's digitalisation. India, with 43 unicorn startups (including 12 FinTechs), secured a third rank in terms of the number of startups joining the unicorn club in 2021, next only to the US and China⁸.

Continuing its efforts towards achieving financial literacy, the Reserve Bank conducted its annual Financial Literacy Week between February 14-18, 2022, with the theme "Go Digital, Go secure." The convenience and security of digital transactions and customer protection were the focus areas. This is backed by recent research establishing the importance of financial awareness, positive perception, safety, and trust in increasing the adoption of digital payment infrastructure⁹. These efforts were complemented by NPCI's UPI Safety and

⁷ <https://www.statista.com/outlook/dmo/fintech/digital-payments/digital-commerce/worldwide?comparison%5b%5d=india>

⁸ <https://www.pwc.in/assets/pdfs/services/startups/start-up-perspectives-india-start-up-deals-tracker.pdf>

⁹ <https://link.springer.com/content/pdf/10.1007/s42786-020-00024-z.pdf>

¹⁰ <https://www.npci.org.in/PDF/npci/press-releases/2022/NPCI-Press-Release-NPCI-Announces-UPI-Safety-and-Awareness-Week-and-Month.pdf>

Awareness Month¹⁰. A new milestone was achieved in the internationalisation of the UPI, with the NPCI International Payments Limited (NIPL) set to enable the platform in Nepal¹¹.

V. Conclusion

The ongoing geopolitical crisis has heightened the uncertainty clouding the global macroeconomic and financial landscape even as the world economy

struggles to recover from the pandemic. Spiralling oil and gas prices and unsettled financial market conditions pose fresh headwinds to the still incomplete global recovery. Amidst these testing times, India is making steady progress on the domestic front as it recovers from the third wave. India's macroeconomic fundamentals remain strong. Unfolding global developments nevertheless pose downside risks in terms of spillovers.

¹¹ <https://www.npci.org.in/PDF/npci/press-releases/2022/NIPL-Press-Release-Gateway-Payment-Service-and-Manam-Infotech-join-hands-to-deploy-UPI-solution-in-Nepal.pdf>

*Union Budget 2022-23: Some Pleasant Fiscal Arithmetic**

The Budget for 2022-23 calibrates a thrust to growth with feasible rectitude, reflected in a moderation in the cyclically adjusted fiscal deficit. Even so, a net fiscal impulse of 0.3 per cent of GDP will continue to operate till the end of 2022-23. The strategy of building in of sufficient buffers will help to secure the budgetary targets set for 2022-23 and create headroom for dealing with global spillovers. Going forward, debt reduction needs to assume prominence in the fiscal policy strategy.

Introduction

The Finance Minister's budget speech and the presentation of the Union Budget in the Parliament is always a defining moment in the evolution of the Indian economy and provides a pivot for the macroeconomic and financial outlook. The Union Budget for 2022-23 is noteworthy in its drive to blend a thrust to growth with a renewal of fiscal consolidation. The overarching theme is to place the recovery from the pandemic on a solid footing. The Budget also sets out a long-term vision for the next 25 years when India reaches 100 years of independence.

In 1981, a seminal paper presented some 'unpleasant monetarist arithmetic' (Sargent and Wallace, 1981) to argue that there is a loss of macro economic stability under fiscal dominance. By contrast, the Budget 2022-23 centre stages fiscal consolidation with some 'pleasant' fiscal arithmetic – growth in revenue expenditure is budgeted at 0.9 per cent in 2022-23 *vis-à-vis* an average growth of 12.0

per cent during 2000-01 to 2019-20 – while imparting a capex push to boost growth.

With the dying down of the myopic reactions of financial markets, a more informed commentary on the budget is making its way into public debate. This commentary has been, in the net, appreciative of the budget, citing three main overarching factors: realism in assumptions and projections; transparency in budget accounting [elimination of extra-budgetary resource (EBR) route and discontinuation of National Small Savings Fund (NSSF) loans to the Food Corporation of India (FCI)]; and a growth orientation conditioned by prudence. This enhances the credibility of the Budget. To this informed discourse can be added the strategy of building in of buffers at various levels, equipping the fiscal authority to deal with future shocks and ensuring achievement of budgetary targets for 2022-23.

The rest of the article is divided into six sections. The following section explores the underlying plumbing of the Budget. Sections III and IV discuss the analytics of the budgeted receipts and expenditure, respectively. Section V examines issues in financing and sustainability of the outstanding debt. Section VI sets out some concluding remarks.

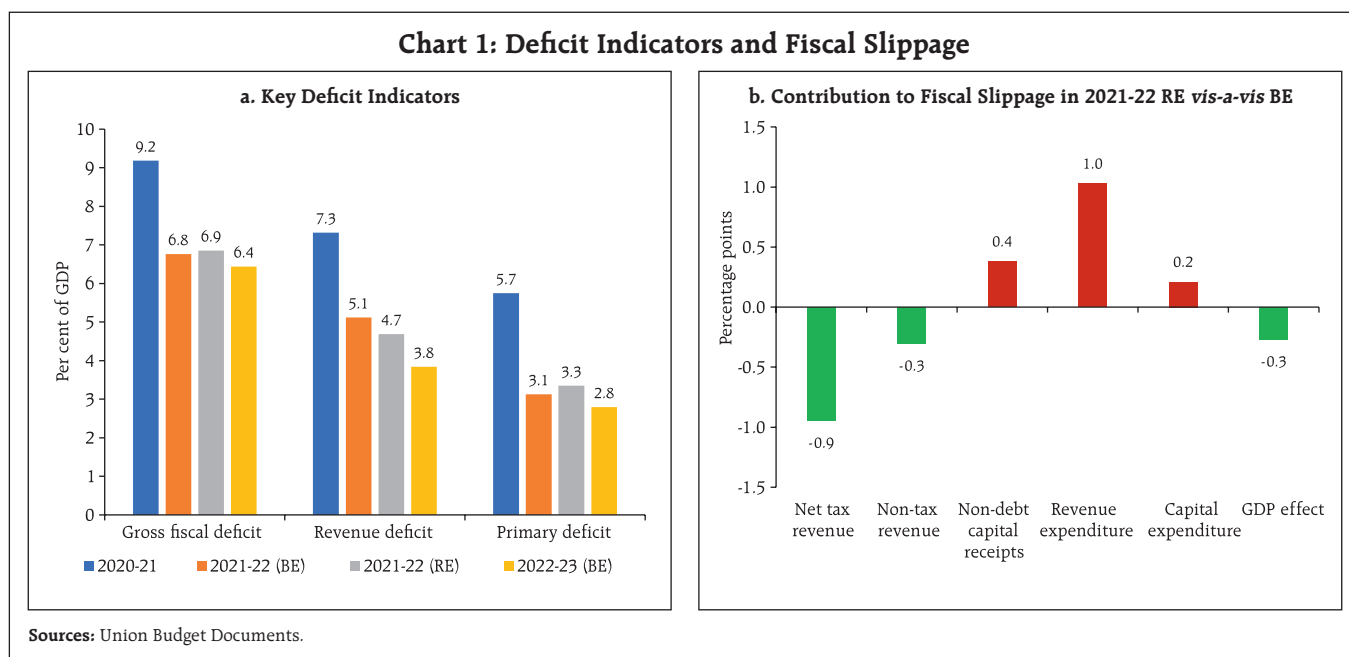
II. Fiscal Deficit – Underlying Dynamics

The gross fiscal deficit (GFD), a summary measure of the fiscal stance, is projected to decline by 2.7 percentage points of GDP¹ over a span of two years in a graduated rollback of the large fiscal stimulus provided to mitigate the impact of the pandemic.

In 2021-22 (RE), net tax revenue of the Union government exceeded the budget estimates (BE) by

* This article has been prepared by Saksham Sood, Ipsita Padhi, Bichitrananda Seth and Dr. Samir Ranjan Behera of Department of Economic and Policy Research, under the overall guidance of Dr. Michael Debabrata Patra. The authors are thankful to Dr. Deba Prasad Rath and Dr. Sitikantha Pattanaik for their valuable inputs. The views expressed in this article are those of the authors and do not necessarily represent the views of the Reserve Bank of India.

¹ The GFD-GDP ratio is budgeted to decline from 9.2 per cent in 2020-21 to 6.4 per cent in 2022-23 (BE). In the Budget, GDP for 2022-23 has been projected at ₹2,58,00,000 crore, assuming 11.1 per cent growth over the estimated GDP of ₹2,32,14,703 crore for 2021-22 (first advance estimates). The second advance estimates, released subsequent to the announcement of Union Budget 2021-22, are placed higher at ₹2,36,43,875 crore. This article, however, uses the first advance estimates of GDP for 2021-22 for analysis to facilitate comparison with data released in documents relating to the Union Budget 2022-23.



₹2.2 lakh crore and non-tax revenue was higher than the BE by ₹70,763 crore, the latter aided by higher than budgeted surplus transfers by the Reserve Bank. On the other hand, higher spending in the wake of the second wave of the pandemic (revenue and capital expenditure surpassed the BE by ₹2.38 lakh crore and ₹48,475 crore, respectively) and shortfalls in disinvestment receipts by ₹97,000 crore contributed to a slender slippage of 0.1 percentage points in the GFD-GDP ratio (Charts 1a and b).

The headline fiscal deficit is typically determined on the one hand by the underlying economic cycle over which the budgeteer has little control, and on the other by discrete policy interventions to achieve broader macro objectives. Accordingly, the gross fiscal deficit can be decomposed into two parts: the cyclical component related to the business cycle (automatic stabilisers like tax revenue and unemployment benefits) and the structural component, reflecting the impact of discretionary changes in fiscal policy independent of the economic environment.

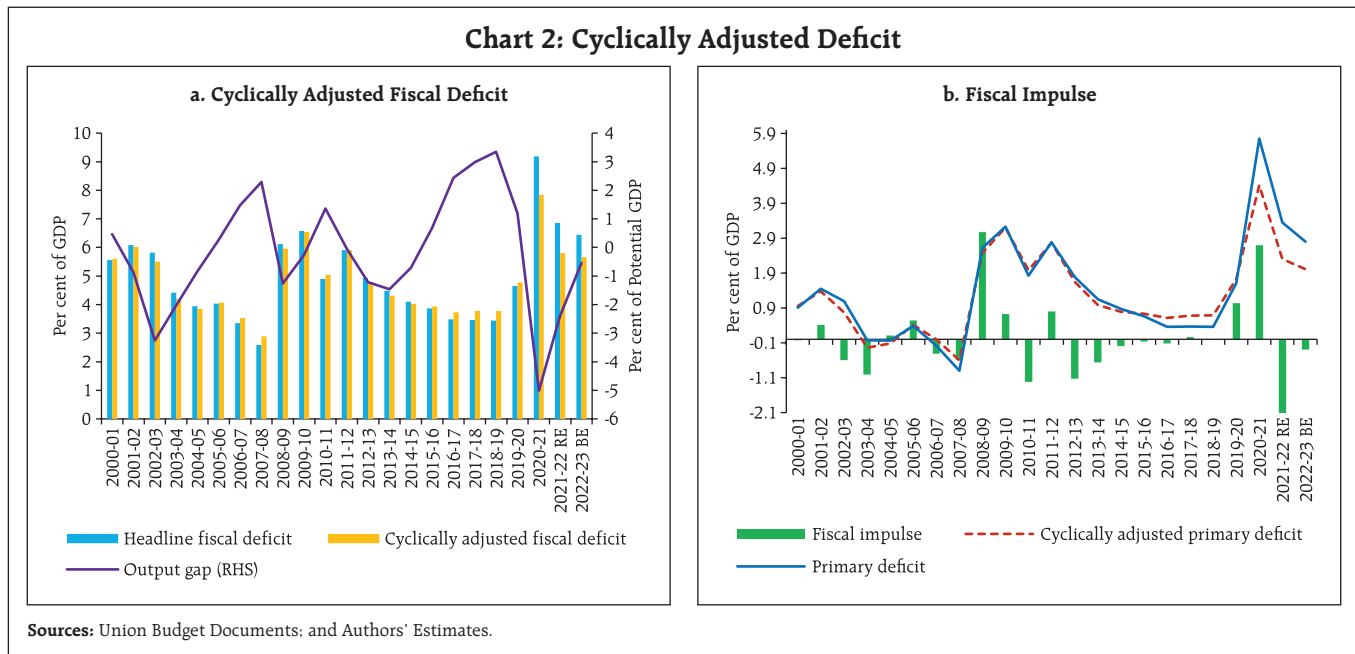
The first difference of the cyclically adjusted primary deficit is termed as the fiscal impulse, a measure of the extent to which fiscal policy is adding

to or withdrawing demand. The elasticity of revenue/expenditure with respect to the output gap – the deviation of actual output from potential output² – defines the strength of the cyclical effect³.

In India, it is tax revenues that display cyclicity. Non-tax revenues and non-debt capital receipts (comprising recovery of loans/advances and disinvestment receipts) are impervious to the business cycle. Revenue elasticity is estimated at 1.5, implying that tax revenues respond more than proportionately to the output gap. In the absence of expenditure-related automatic stabilisers (unlike advanced countries where unemployment benefits are directly linked to the business cycle), expenditure elasticity can be assumed to be zero, *i.e.*, all expenditure is viewed as discretionary. Using these elasticities, the

² Potential output is defined as the level of output that an economy can sustainably produce over the medium term by utilising all resources efficiently. Output gap is the difference between actual and potential output (Rabanal, 2015).

³ $R^* = R \left(\frac{Y^*}{Y}\right)^{\epsilon_r}$, $E^* = E \left(\frac{Y^*}{Y}\right)^{\epsilon_e}$ where R and E are actual revenue and expenditure; R^* and E^* are the cyclically adjusted revenue and expenditure; Y is actual output; Y^* is potential output and ϵ_r and ϵ_e are the elasticities of revenue and expenditure, respectively, with respect to the output gap (Fedelino *et al.*, 2009).

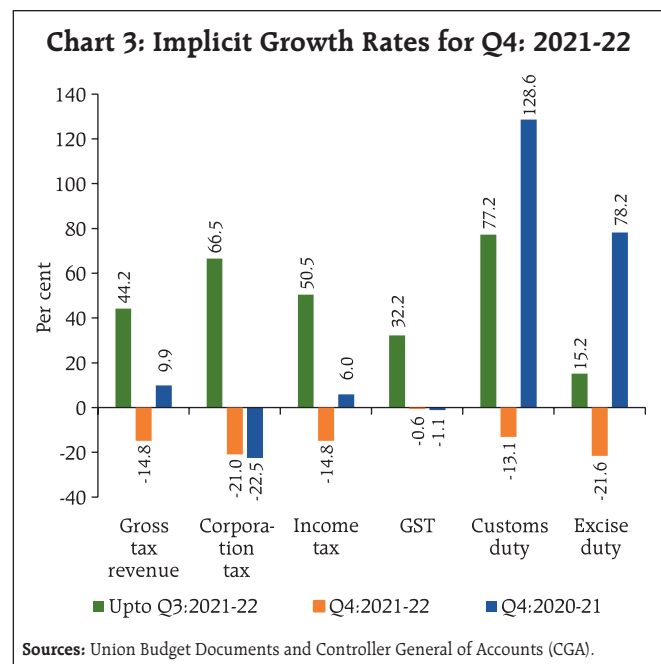


cyclically adjusted GFD is estimated at 5.7 per cent in 2022-23 (BE), down from 5.8 per cent in 2021-22 (RE) and 7.8 per cent in 2020-21⁴. Thus, there is a moderation in the cyclically adjusted fiscal deficit of the order of 2.2 percentage points in two years (more than three-fourths of the corresponding reduction in the unadjusted and widely known gross fiscal deficit), which indicates resolute strategic actions by the budgeteer to secure genuine consolidation. Even so, a net fiscal impulse of 0.3 per cent of GDP will continue to operate till the end of 2022-23⁵ (Charts 2a and b).

III. Receipts

The revised estimates for 2021-22 place the growth of gross tax revenue at 24.1 per cent (Annex 1). During April-December 2021, however, a year-on-year (y-o-y) growth of 44.2 per cent has already been achieved, implying that gross tax revenue should

decline by 14.8 per cent in Q4:2021-22⁶ (Chart 3)! The historical record indicates that a significant proportion of tax revenue (33.2 per cent on average, with a y-o-y



⁴ The economic slack (or negative output gap) is estimated to persist in 2022-23, as in 2020-21 and 2021-22, and therefore, the cyclically adjusted fiscal deficit numbers as per cent of GDP are expected to be lower than the fiscal deficit numbers in these three years.

⁵ From 2020-21 onwards, the cumulative fiscal impulse amounted to 2.7 per cent of GDP in 2020-21, which declined to 0.6 per cent in 2021-22 and further to 0.3 per cent of GDP in 2022-23.

⁶ Based on actual data for April-January 2021-22, the RE suggests an implicit growth of (-)18.4 per cent in gross tax revenues during February-March 2021-22. The implicit growth in corporation tax, income tax, GST, customs duty and excise duty for February-March 2021-22 work out to (-)29.2 per cent, (-)26.5 per cent, 7.9 per cent, (-)2.3 per cent and (-)20.7 per cent, respectively.

Table 1: Tax Buoyancy

	Average Tax Buoyancy (2010-11 to 2018-19)	2021-22 (BE)	2021-22 (RE)	2022-23 (BE)
1	2	3	4	5
1. Gross Tax Revenue	1.11	1.33	1.40	0.86
2. Direct Taxes	1.03	1.79	1.87	1.22
(i) Corporation Tax	0.92	1.80	2.25	1.20
(ii) Income Tax	1.27	1.81	1.54	1.28
3. Indirect Taxes	1.25	0.91	0.99	0.51
(i) GST	-	1.78	1.33	1.40
(ii) Customs Duty	0.31	1.71	2.34	1.14
(iii) Excise Duty	0.91	-0.57	0.03	-1.34

Note: Buoyancy for 2021-22 (BE) is calculated over 2020-21 (RE)

Source: Authors' calculations based on Union Budget Documents for various years.

growth of 12.0 per cent) is received in the last quarter. This provides the confidence that the RE for 2021-22 is likely to be over-achieved.

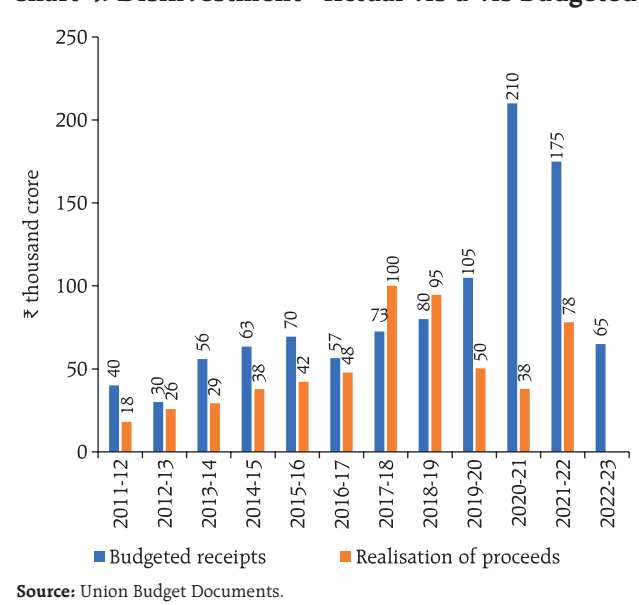
In 2022-23 (BE), the government has budgeted gross tax revenue buoyancy⁷ at 0.9 as against the average of 1.4 in the years of economic recovery⁸. Direct and indirect tax buoyancies have been budgeted at 1.2 and 0.5, as against the average of 1.7 and 1.3, respectively, in recovery years⁹. Moreover, buoyancies in 2022-23 are based on a nominal GDP growth assumption of 11.1 per cent, which will most likely be exceeded (Table 1).

In 2021-22 (RE), disinvestment receipts are placed at ₹78,000 crore, 55.4 per cent short of the budgeted target of ₹1.75 lakh crore. Of this, only ₹12,068 crore have been realised until January 2022. In 2022-23 (BE), the disinvestment target has been pegged at ₹65,000 crore, against an average realisation of around ₹66,000 crore during 2016-17 to 2020-21 (Chart 4).

⁷ Tax buoyancy is a measure of the responsiveness of tax revenues to growth in nominal GDP and to discretionary changes in tax policies (Dudine and Jalles, 2017).

⁸ Years of economic recovery have been taken as 1999-00, 2002-03, 2004-05, 2010-11 and 2013-14 as the 't+2' year following the year of growth slowdown (t).

⁹ The overall buoyancy seems muted primarily due to negative growth in excise duty owing to reduction in taxes on fuel.

Chart 4: Disinvestment - Actual vis-a-vis Budgeted

IV. Expenditure

Total expenditure is budgeted to increase by 4.6 per cent in 2022-23 as against 7.4 per cent a year ago. This fiscal brake is, however, not at the cost of the quality of expenditure. Revenue expenditure is budgeted to grow by only 0.9 per cent, while the growth in capital expenditure is budgeted at 24.5 per cent (Table 2). Under capital expenditure, an amount of ₹1 lakh crore has been earmarked to provide 50-year interest-free loans to States for carrying out PM *Gati Shakti* related capital investment, supplemental funding for priority segments of PM *Gram Sadak Yojana*, including support for the States' share, digitisation of the economy and other productive capital investment¹⁰. Capital outlay (capital expenditure less loans and advances) is budgeted to increase by 11.5 per cent in 2022-23, on top of a growth of 73.3 per cent in 2021-22 (RE), led by robust growth in infrastructure spending, particularly roads and railways.

¹⁰ Following the recommendations of the 15th Finance Commission (FC), the Centre allowed the States a fiscal deficit of up to 4 per cent of GSDP in 2022-23, of which 0.5 per cent will be tied to power sector reforms. Furthermore, tax devolution to States grew by 25.2 per cent in 2021-22 (RE) over the previous year and have been budgeted to further grow by 9.6 per cent in 2022-23. These will provide fiscal space to States to undertake higher capital expenditure.

Table 2: Capital Expenditure

	₹ crore			Y-o-Y growth	
	2020-21	2021-22 (RE)	2022-23 (BE)	2021-22 (RE)	2022-23 (BE)
1. Capital Expenditure (2+3)	4,26,317	6,02,711	7,50,246	41.4	24.5
2. Capital Outlay (of which):	3,15,826	5,47,457	6,10,189	73.3	11.5
2.1.1 Major Infrastructure (of which):	1,30,496	3,02,504	3,73,440	131.8	23.4
Irrigation	133	170	350	28.1	105.4
Indian Railways	29,926	1,17,100	1,37,100	291.3	17.1
Roads & Bridges	92,294	1,13,876	1,80,301	23.4	58.3
Communications	4,929	5,525	53,651	12.1	871.0
2.1.2 Industry and Minerals	5,212	6,597	7,676	26.6	16.4
2.1.3 Science, Technology and Environment	6,029	9,421	10,535	56.3	11.8
3. Loans and Advances (of which):	1,10,491	55,255	1,40,057	-50.0	153.5
3.1 Loans to State Governments	19,554	20,819	1,11,902	6.5	437.5

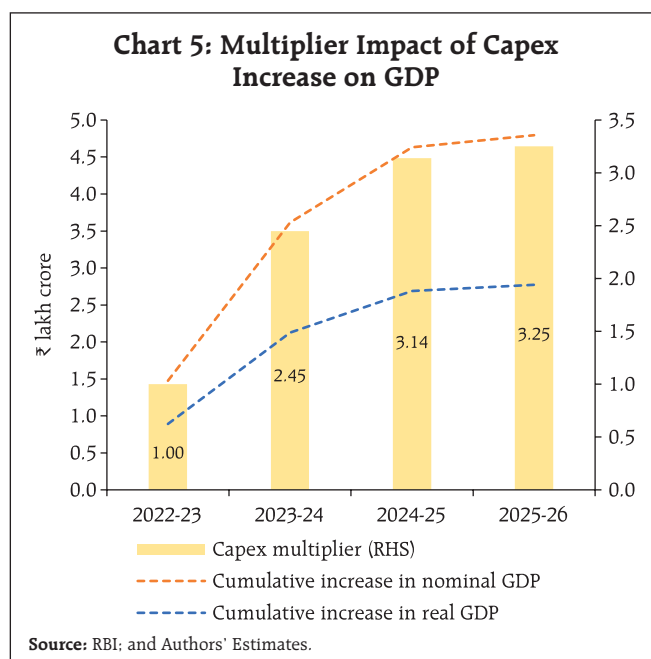
Source: Union Budget Documents.

The budgeted outlay for capital expenditure will release an additional investment of ₹1.48 lakh crore in 2022-23 (BE) vis-a-vis 2021-22 (RE). With a dynamic capital expenditure multiplier cumulating to 2.45 in 2023-24, 3.14 in 2024-25 and peaking in 2025-26 at 3.25¹¹, GDP growth will be pushed up by an additional 1.4 - 1.9 percentage points from 2023-24 to 2025-26. In other words, the additional investment of ₹1.48 lakh crore will produce additional GDP of ₹2.8 lakh crore in real terms or in constant prices over the four-year period that it takes for the capital expenditure multiplier to peak. At current prices, the additional GDP produced will be ₹4.8 lakh crore over the next four years (Chart 5).

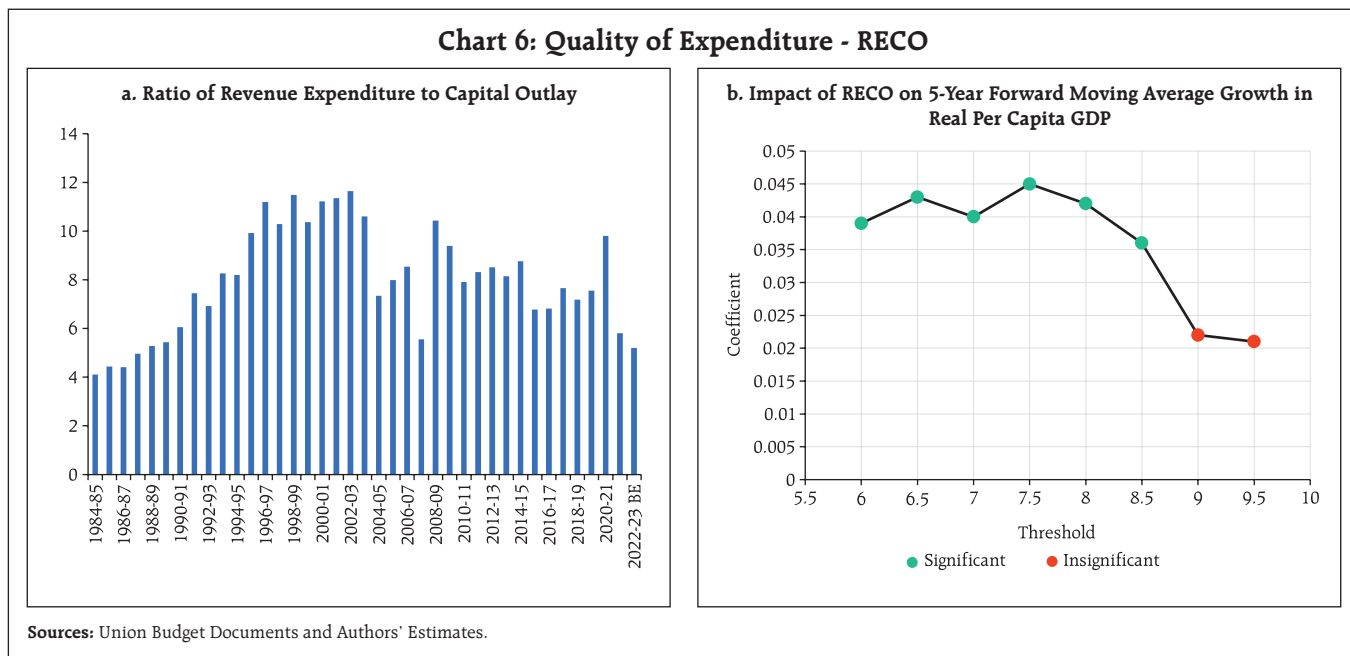
The effects of revenue and capital expenditure on economic activity vary in magnitude and duration. While revenue expenditure plays an important role in supporting demand, its effect withers out in a year. On the other hand, capital expenditure produces stronger and longer-lasting macroeconomic impulses, peaking in three years. The ratio of revenue expenditure to capital outlay (RECO) serves as a good indicator of the growth impact of public expenditure. Empirical evidence indicates that there is a threshold for RECO of 7.5 beyond which its positive and statistically

¹¹ Reserve Bank of India (2019). Monetary Policy Report, April.

significant association with per capita GDP wears out¹². In 2022-23 (BE), this ratio is placed at 5.2, well



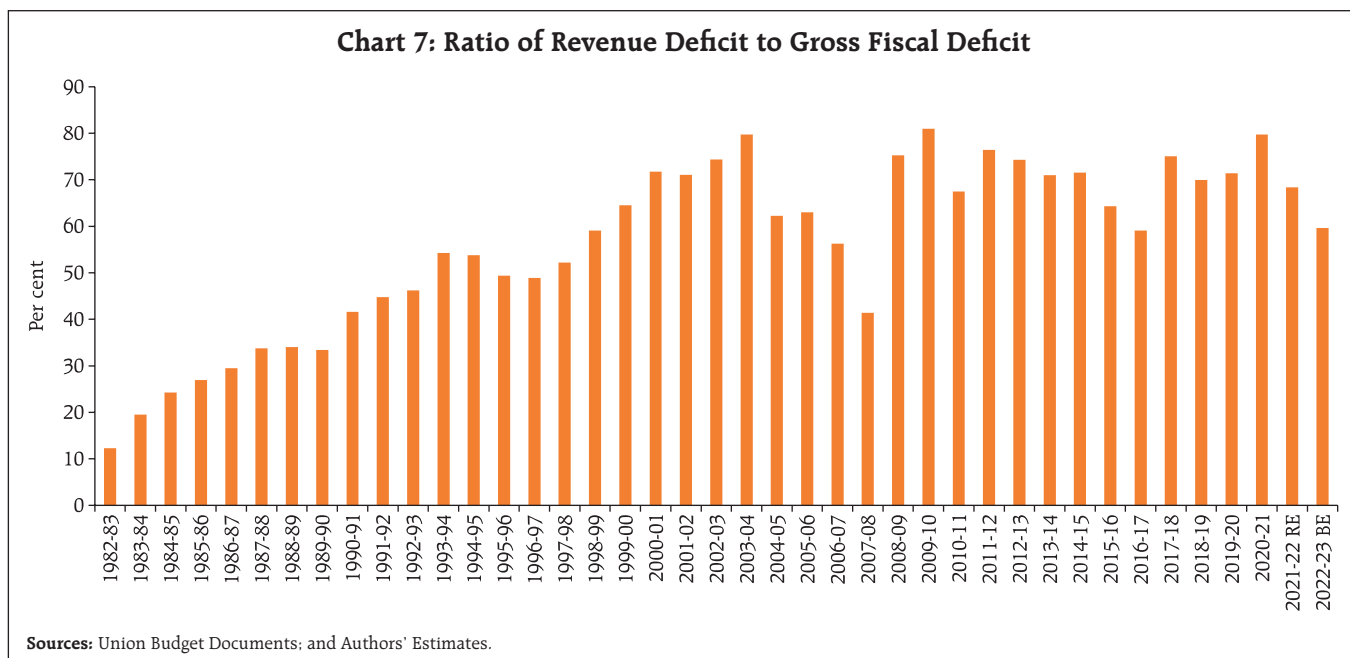
¹² 5-year forward moving average growth in real per capita gross domestic product (PCGDPG) and RECO for the Union government in an ordinary least squares (OLS) regression framework with suitable controls and different threshold levels for RECO yields a range from 6.0 to 9.5. Though the two variables are non-stationary, their residual is stationary indicating cointegrating relationship and thus, OLS can be run. The control variables used are the size of India's international trade in terms of export plus import as a per cent to GDP (TRDGDGP), adult literacy rate (ALR) as a proxy for human capital and total expenditure to GDP ratio (TEGDP) as a proxy for the size of the expenditure. To identify threshold in RECO, 8 interactive dummy variables have been used in a mutually exclusive way.



below the threshold and, therefore, releasing growth-boosting effects (Chart 6a and b).

The ratio of the revenue deficit to the gross fiscal deficit (RDGFD)¹³ – another indicator of the

quality of expenditure is set to decline for the second consecutive year to 59.6 per cent in 2022-23 (BE), as against the average of 70.1 per cent during 2010-11 to 2019-20¹⁴ (Chart 7). Central finances are, thus, moving towards a growth promoting expenditure mix.



¹³ This indicator shows how much borrowed funds are going towards revenue account and capital account. Since investment in long-term assets gives a higher return which can be used to repay the borrowed funds, this ratio has an important implication for debt sustainability.

¹⁴ Replacing RECO with RDGFD ratio in the OLS framework (mentioned in footnote 12), with all other specifications being the same, a threshold of 45 per cent gives a higher statistically significant impact. To identify threshold in RDGFD ratio, five interactive dummy variables have been used in a mutually exclusive way.

V. Financing of GFD and Debt Dynamics

In 2022-23, gross market borrowing through dated securities is budgeted at ₹14.95 lakh crore, which exceeded market expectations. However, adjusting for switch operations amounting to ₹63,648 crore undertaken on January 28, 2022 gross borrowing requirement may stand reduced at ₹14.31 lakh crore. Moreover, an amount of ₹65,000 crore will be borrowed by the Union government on behalf of the National Highways Authority of India (NHAI), instead of the usual practice of NHAI borrowing directly from the market.

A reversion to the pre-pandemic pattern of financing is also envisaged with the increase in the share of net market borrowings to 67.3 per cent during 2022-23 (as against the average of 83.2 per cent during 2010-19 and 52.1 per cent during 2019-22); reduction in the reliance on T-bills and NSSF (financing through NSSF increased to 29.8 per cent during 2019-22, as against the average of 7.8 per cent during 2010-19); and reduction in the share of external assistance (Table 3). As a part of the government's overall market borrowings in 2022-23, Sovereign Green Bonds will also be issued, the proceeds of which will be deployed in public sector projects for reducing the carbon intensity of the economy. Sovereign green bonds could be key to meet climate goals, facilitate better pricing or a green bond premium/greenium by broadening and diversifying the investor base and contribute in the development of the green finance market¹⁵. A successful sovereign green bond issuance will, however, depend on the robustness of the procedures and frameworks involved such as a detailed budget tagging exercise to classify expenditures according to green and social taxonomies (Climate Bonds Initiative, 2021).

¹⁵ Several emerging market economies such as Indonesia, Thailand, Malaysia, Philippines, Egypt, Lithuania, Mexico, Chile have issued sovereign green bonds (Azhgaliyeva *et al.*, 2020).

Table 3: GFD Financing

(Amount in ₹ crore)

Item	2020-21	2021-22 (BE)	2021-22 (RE)	2022-23 (BE)
1	2	3	4	5
Gross Fiscal Deficit	18,18,291 (100.0)	15,06,812 (100.0)	15,91,089 (100.0)	16,61,196 (100.0)
<i>Financed by</i>				
Net Market Borrowings	10,32,907 (56.8)	9,24,708 (61.4)	7,75,771 (48.8)	11,18,612 (67.3)
Net Treasury Bills	2,83,205 (15.6)	50,000 (3.3)	1,00,000 (6.3)	50,000 (3.0)
Securities issued against Small Savings (net)	4,83,733 (26.6)	3,91,927 (26.0)	5,91,524 (37.2)	4,25,449 (25.6)
External Assistance	70,180 (3.9)	1,514 (0.1)	19,746 (1.2)	19,251 (1.2)
State Provident Fund	18,514 (1.0)	20,000 (1.3)	20,000 (1.3)	20,000 (1.2)
Reserve Fund	4,545 (0.2)	5,051 (0.3)	-1,675 (-0.1)	5,824 (0.4)
Deposits and Advances	25,682 (1.4)	28,868 (1.9)	32,945 (2.1)	34,029 (2.0)
Draw Down of Cash Balances	-7,188 (-0.4)	71,383 (4.7)	1,74,187 (10.9)	752 (0.0)
Others	-93,287 (-5.1)	13,361 (0.9)	-1,21,410 (-7.6)	-12,721 (-0.8)

- Notes:**
1. Net market borrowings include borrowings through dated securities only.
 2. Net treasury bills include borrowings through 91-day, 182-day, 364-day and all other treasury bills.
 3. Others include buyback of securities, switching off of securities, saving bonds, relief bonds etc.
 4. Figures in parentheses represent per cent of GFD.

Source: Union Budget Documents.

Debt, *i.e.*, the temporal accumulation of fiscal deficit is considered to be unsafe if under existing conditions and likely future policies, there is a non-negligible risk that the debt-GDP ratio will steadily increase and lead to a default at some point (Blanchard, 2022). In the aftermath of the pandemic, Union government debt reached an all-time high of 63.1 per cent of GDP in 2020-21 and is budgeted at 60.4 per cent in 2022-23. To assess the ability of the government to service this debt out of current and regular sources of revenue, we examine three main indicators of debt sustainability. First, real interest

Table 4: Indicator-based Debt Sustainability Analysis

	1981-82 to 1990-91	1991-92 to 2000-01	2001-02 to 2010-11	2011-12 to 2019-20	2019-20	2020-21	2021-22 (RE)	2022-23 (BE)
$r - g < 0$	-8.15	-5.47	-6.29	-4.25	0.37	7.38	-10.04	-5.89
PB/GDP > 0	-4.11	-1.32	-0.95	-1.10	-1.60	-5.75	-3.35	-2.79
IP/RR	28.46	47.42	39.98	36.45	36.34	41.61	39.14	42.67

Note: Green colour indicates that the condition is met and orange indicates that the condition is violated. r is real rate of interest; g is real output growth; PB is primary balance; IP is interest payments; RR is revenue receipts. Nominal interest rate is calculated as a ratio of interest payment at t to debt at $t-1$.
Source: Authors' estimates.

rate (r) should be lower than the rate of growth of real GDP (g). Second, the primary balance should be positive. Third, the cost of debt servicing, proxied by the ratio of interest payments to revenue receipts, should be declining over time. An analysis of these indicators for the union government reveals that the real rate of interest has been lower than growth rate of real GDP in all phases but turned positive in 2019-20 due to growth slowdown, and in 2020-21 due to the impact of the pandemic. Primary balance has remained consistently negative through all the phases, however, it has mostly been outweighed by the negative $r - g$.¹⁶ The ratio of interest payments to revenue receipts stands high at over 42 per cent owing

to the increased borrowing requirements of the Union government (Table 4).

In addition to the backward-looking indicator-based approach, a forward-looking debt sustainability analysis has also been carried out, based on IMF's Debt Dynamics Tool (DDT)¹⁷. The Union government's debt path is projected for the period 2022-23 to 2025-26, the terminal year for achieving the gross fiscal deficit of below 4.5 per cent of GDP, based on initial conditions categorised by available projections of GDP growth, inflation, primary balance and effective interest rate (Table 5)¹⁸. In the baseline scenario, the union government's debt is projected to contract to 56.7 per cent of GDP by 2025-26.

Table 5: Debt Dynamics Tool – Key Assumptions and Results

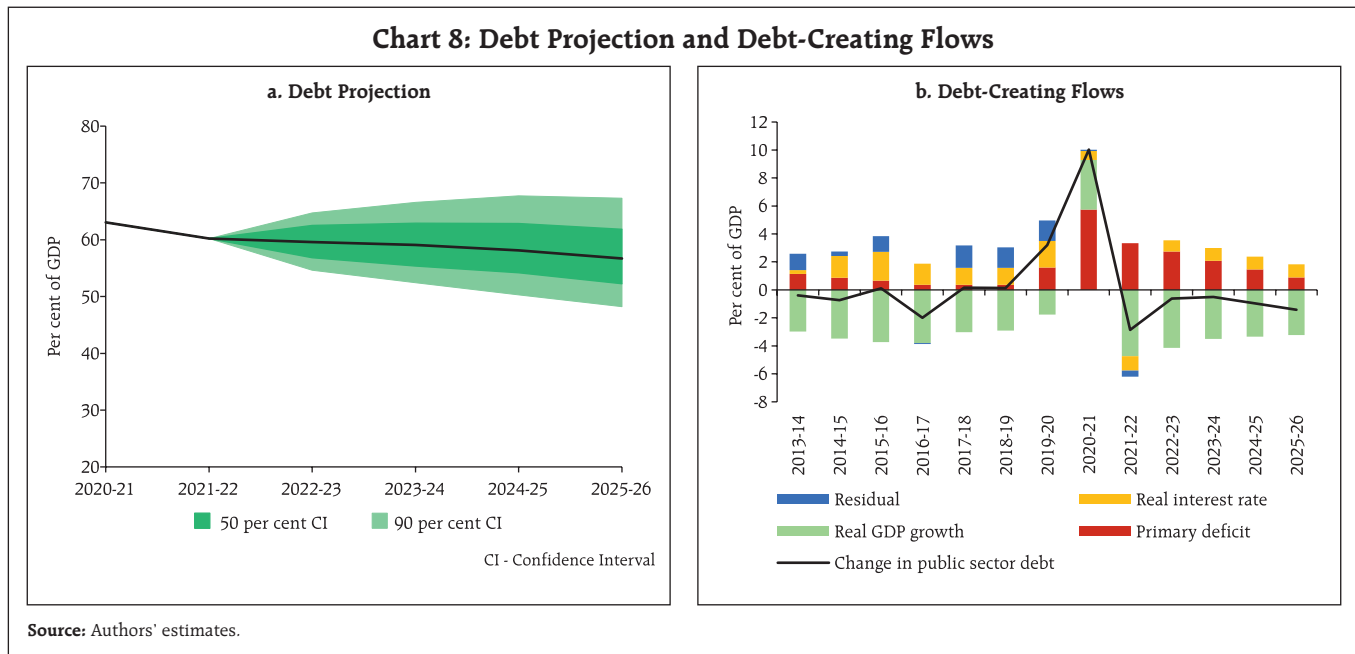
	Historical					Projection (Baseline)			
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Real GDP Growth	6.8	6.5	3.7	-6.6	8.8	7.8	6.6	6.3	6.2
GDP Deflator Inflation	4.0	3.9	2.4	5.6	7.7	4.8	4.7	4.7	4.7
Gross Primary Balance	-0.4	-0.4	-1.6	-5.7	-3.3	-2.7	-2.1	-1.5	-0.9
Nominal Effective Interest Rate	6.9	6.9	6.5	6.4	6.5	6.7	6.7	6.7	6.7
Debt	49.7	49.8	53.0	63.1	60.2	59.6	59.1	58.1	56.7

Source: Authors' estimates.

¹⁶ If the entire public debt is held domestically and there are no stock-flow adjustments, the change in debt-GDP ratio is given by: $\Delta d_t = \frac{r-g}{1+gt} d_{t-1} - pb_t$. Debt will decline over time when $r - g < 0$ and the economy is running a primary surplus, or when $r - g < 0$ and the first term on RHS outweighs any primary deficit.

¹⁷ The DDT is an excel-based template developed by the International Monetary Fund (IMF) which can be used to project public debt using a small set of macroeconomic variables.

¹⁸ Real GDP growth is based on the RBI's projections for 2022-23 and WEO (October 2021) for the following years. Gross tax revenue buoyancy is budgeted at 1.1 and total expenditure is projected to grow by 6.5 per cent annually. Based on these assumptions, gross fiscal deficit of the Union government is projected to contract to 4.4 per cent of GDP in 2025-26. Given that India's external debt is less than 3 per cent of GDP, and around 5 per cent of total debt, we have made a simplifying assumption that entire government debt is held domestically.



The fan chart for union government debt, generated by creating shocks for the real GDP growth and primary balance, suggests that in 2025-26 the 50 per cent confidence interval is estimated at 52.3 - 61.9 per cent of GDP (Chart 8a). In the projection period, real GDP growth will remain the key to debt consolidation (Chart 8b).

VI. Conclusion

Fiscal policy exits from crisis modes are much more difficult than going in; in the case of pandemics, it is excruciatingly so. Exiting policy makers have to contend with the razor's edge trade-off between cliffs and ramps. Too rapid and large a withdrawal of fiscal support risks pushing the economy over the cliff into a sharp downturn. On the other hand, the ramp effects of too gently sloped a withdrawal runs the risk of moral hazard, and the building up of pressure groups for delaying the withdrawal of policy stimulus.

The Budget for 2022-23 commences this journey of conflicting pulls by seeking to calibrate a thrust to growth with feasible rectitude. Accordingly, it

has chosen to go with a reduction in the gross fiscal deficit (GFD) by 0.4 per cent of GDP¹⁹ on its path to taking it down to 4.5 per cent by 2025-26. While this reduction may be seen as modest and back loading the bulk of consolidation on to later years, it needs to be evaluated against what the economy can bear now and the slack it can pull in when the recovery is stronger, rooted and self-sustaining. Getting there hinges around a strong investment drive and that is what the Budget has sought to prioritize, while holding down revenue expenditure growth relative to historical precedent. Our calculations show that the benefits of this infrastructure-first strategy will pay dividends for several years, peaking in 2025-26 – the year of the next milestone on the consolidation path. Estimates of the fiscal impulse presented here suggest that despite the consolidation, there will be some stimulus left in the economy till the end of 2022-23. It is now for private investment to respond and participate in the recovery.

¹⁹ GFD-GDP ratio is budgeted to decline to 6.44 per cent in 2022-23 from 6.85 per cent in 2021-22 (RE).

The Budget has adopted a risk-minimisation strategy of providing headroom at several levels – conservative revenue forecasts; realistic disinvestment target; economy in the recourse to NSSF and cash balances; and conservative nominal GDP projections. These buffers will help to secure the budgetary targets set for 2022-23.

Key indicators of debt sustainability have started improving after taking a hit during 2019-21. Going forward, Union government debt is projected to stabilise below 60 per cent of GDP in the medium-term, but it is large at around 85 per cent when juxtaposed with sub-national debt. While the post-pandemic debt consolidation will rely primarily on GDP growth, it needs to be complemented by fiscal consolidation. In this context, the 0.4 percentage points reduction in the GFD of the Centre for 2022-23 is a valuable starting point and needs to be matched by the States.

References

- Azhgaliyeva, D., Kapoor, A., & Liu, Y. (2020). *Green bonds for financing renewable energy and energy efficiency in South-East Asia: a review of policies*. Journal of Sustainable Finance & Investment, 10(2), 113-140.
- Blanchard, O. (2022). *Deciding When Debt Becomes Unsafe*. Finance and Development, International Monetary Fund, March.
- Dudine, M. P., & Jalles, J. T. (2017). *How buoyant is the tax system? New evidence from a large heterogeneous panel*. International Monetary Fund.
- Fedelino, A., Ivanova, A., & Horton, M. A. (2009). *Computing cyclically-adjusted balances and automatic stabilizers*. IMF Technical Notes and Manuals, 2009 (005).
- Rabanal, P. (2015). *Q&A: Seven Questions on Potential Output*. IMF Research Bulletin, 2015(001).
- Sargent, T.J. and Wallace, N (1981). *Some unpleasant monetarist arithmetic*. Quarterly Review, Federal Reserve Bank of Minneapolis, vol. 5.
- Sovereign Green, Social, and Sustainability Bond Survey: The Ultimate Power to Transform the Market (2021). Climate Bonds Initiative.

Annex 1: Union Budget 2022-23: Key Fiscal Indicators

	in ₹ thousand crore					Per cent of GDP		Growth Rate	
	2019-20	2020-21	2021-22 (BE)	2021-22 (RE)	2022-23 (BE)	2021-22 (RE)	2022-23 (BE)	2021-22 (RE)	2022-23 (BE)
1	2	3	4	5	6	7	8	9	10
1. Direct Tax	1,050	945	1,108	1,250	1,420	5.4	5.5	32.3	13.6
(i) Corporation	557	458	547	635	720	2.7	2.8	38.7	13.4
(ii) Income	480	470	549	595	680	2.6	2.6	26.5	14.3
2. Indirect Tax	961	1,082	1,109	1,266	1,338	5.5	5.2	17.0	5.7
(i) GST	599	549	630	675	780	2.9	3.0	23.0	15.6
(ii) Customs	109	135	136	189	213	0.8	0.8	40.3	12.7
(iii) Excise	241	392	335	394	335	1.7	1.3	0.6	-15.0
3. Gross Tax Revenue (1+2)	2,010	2,027	2,217	2,516	2,758	10.8	10.7	24.1	9.6
4. Assignment to States	651	595	666	745	817	3.2	3.2	25.2	9.6
5. NCCD Transfers	2	6	6	6	6	0.0	0.0	5.3	4.4
6. Net Tax Revenue (3-4-5)	1,357	1,426	1,545	1,765	1,935	7.6	7.5	23.8	9.6
7. Non Tax Revenue	327	208	243	314	270	1.4	1.0	51.1	-14.1
(i) Dividends and Profits	186	97	104	147	114	0.6	0.4	52.1	-22.7
(ii) Interest Receipts	12	17	12	21	18	0.1	0.1	22.1	-13.9
8. Revenue Receipts (6+7)	1,684	1,634	1,788	2,079	2,204	9.0	8.5	27.2	6.0
9. Non-debt Capital Receipts	69	58	188	100	79	0.4	0.3	73.5	-20.7
(i) Disinvestment Receipts	50	38	175	78	65	0.3	0.3	105.8	-16.7
(ii) Recovery of Loans	18	20	13	22	14	0.1	0.1	11.4	-35.0
10. Total Receipts (ex. borrowings) (8+9)	1,753	1,692	1,976	2,179	2,284	9.4	8.9	28.8	4.8
11. Revenue Expenditure	2,351	3,084	2,929	3,167	3,195	13.6	12.4	2.7	0.9
(i) Interest Payments	612	680	810	814	941	3.5	3.6	19.7	15.6
(ii) Major Subsidies	228	708	336	433	318	1.9	1.2	-38.8	-26.6
Food	109	541	243	286	207	1.2	0.8	-47.1	-27.8
Fertilizer	81	128	80	140	105	0.6	0.4	9.5	-24.9
Petroleum	39	38	14	7	6	0.0	0.0	-83.1	-10.8
12. Capital Expenditure (i + ii)	336	426	554	603	750	2.6	2.9	41.4	24.5
(i) Capital Outlay	311	316	514	547	610	2.4	2.4	73.3	11.5
(ii) Loans & Advances	24	110	40	55	140	0.2	0.5	-50.0	153.5
13. Total Expenditure (11+12)	2,686	3,510	3,483	3,770	3,945	16.2	15.3	7.4	4.6
14. Gross Fiscal Deficit (13-10)	934	1,818	1,507	1,591	1,661	6.9	6.4	-12.5	4.4

Source: Union Budget Documents.

*Green Transition Risks to Indian Banks**

Transition to a net-zero carbon emission target will entail adjustment in the production processes of industries that are directly or indirectly exposed to excessive use of fossil fuel. Concomitantly, due to the exposure of Indian banks to these industries, there can be spillover effects on them, which is highlighted in this article. Three sectors with direct exposure to fossil fuels – electricity, chemicals, and automobiles account for around 24 per cent of credit to overall industrial sector, but only 10 per cent of total outstanding non-retail bank credit, which implies a limited spillover to the banking system. Several other industries, however, indirectly use fossil fuels and therefore any transition to green energy can have implications for their income and consequently their interest coverage ratio (ICR). Therefore, the gross non-performing assets (GNPA) ratio of such industries may be sensitive to green energy transition, and their impact on overall banking system need to be monitored closely.

Introduction

In the recent years, governments across the globe have been aggressively pursuing measures to mitigate the impact of climate change. Some of the flagship programmes include United Nation's Environment Programme (UNEP), Paris Climate Change deal (2015) and Glasgow COP26 (2021). Climate risk has a few defining characteristics that differentiate it from other risks. It is far-reaching, non-linear, and has mostly irreversible consequences. Given the economic costs and benefits of the policies required to tackle climate change, it has become imperative to analyse the related macroeconomic issues, including financial risks. For a central bank, monitoring financial entities' exposure to climate risk and stress testing the impact

of such risks for macro-financial stability assume particular significance. Recognising the emerging challenges, the Bank of England has launched the Biennial Exploratory Scenario Analysis; Banque de France uses a sectoral rating-based model and financial models; Bank of Canada evaluates the impact of climate change scenarios on Canadian GDP; and Banco Central de Chile assesses the probability of default. The Reserve Bank of India has also been proactive in highlighting green finance related issues in its reports and publications, with a focus on financial stability implications in the Financial Stability Report (FSR).

India has formulated the National Action Plan on Climate Change or NAPCC back in 2008 and set up the Climate Change Finance Unit (CCFU) in 2011 with a vision to outline the broad policy framework towards mitigating the impact of climate change. Further, there have been several recent initiatives in this direction, notably the International Solar Alliance; reducing emission in railways; the LED bulb campaign; and widening of geographical coverage of BS IV (See Section III). One could expect increasing challenge of adhering to emission norms for industries, vehicles and fossil-fuel energy production units in the future. The banking sector in India, being the dominant source of finance for these sectors, is likely to be exposed to certain transitional costs. To quantify the effects of such changes, the rating class of models use probability of defaults (PD) in different industries. In another class of general equilibrium models, transitional shocks are viewed as supply side shocks, unlike physical shock which are viewed more as demand side shocks.

In this article, we analyse the exposure of the banking sector in India to industrial activities that are dependent on fossil fuels, to measure the extent of vulnerability that the banking sector may be exposed to, if there is a major shift in the industry input usage and/or production processes due to a shift away from fossil fuels. Beside industries related to fossil fuels that create direct exposures, there are several other

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industries which are dependent on fossil fuel-based energy to a varied extent and therefore can be treated as being indirectly exposed.

The rest of this article is organised as follows. In Section 2, we provide a brief outline of the prevailing global emission standards, norms and policies, which mainly comprise of the Green House Gas (GHG) emission targets that various countries have set according to the Paris Climate deal (2015), and the progresses made so far with an emphasis on India. In Section 3, we identify the major sectors that might be exposed to fossil-fuel risks. In Section 4, we discuss their dependence on fossil fuel in greater detail. In Section 5, we discuss the exposure of banking sector to these sectors. Section 6 concludes with key observations.

II. Greenhouse Gas Emission: Global Trends and Policy

In order to combat climate change risks, the Paris Agreement was adopted as a landmark climate deal, which is a legally binding international treaty¹ on climate change. The agreement was adopted by 196 parties in December 2015 and has come into force since November 2016. The goal of the deal is to limit global temperature rise to well below 2 degrees Celsius, preferably to 1.5 degrees Celsius, compared to the pre-industrialisation period of the past century. The Paris climate deal primarily rests upon country-specific plans for climate action, known as nationally determined contributions (NDCs), which the countries had to submit by 2020. In their NDCs, countries commit to reduce their GHG emission intensities (per capita emission or emission-to-GDP ratio) at a mutually agreed level by 2030. Countries also communicate actions which they will take to reduce their GHG emissions in order to reach the goals of the Paris Agreement. The Paris Agreement

¹ <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

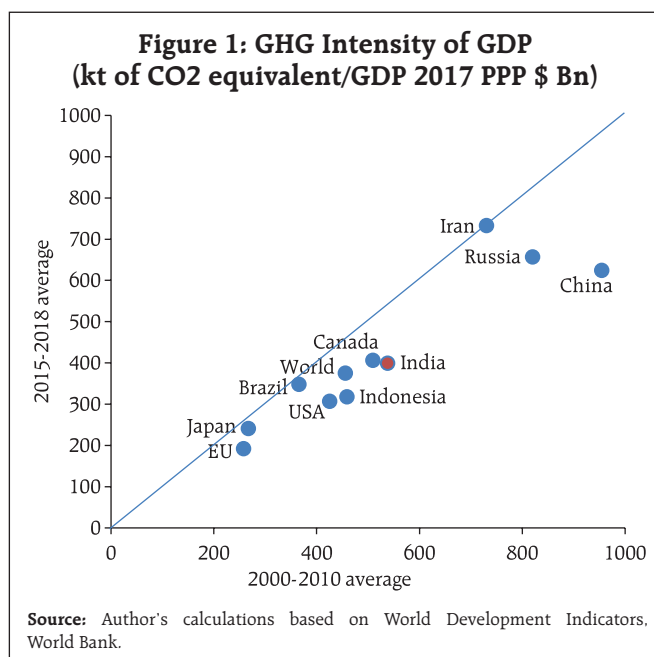
Table 1: 2030 Unconditional Targets According to NDCs

Country	Reduction in Emission Intensity (Percentage reduction from base year)	GHG Intensity 2015-18 average (kt of CO2 equivalent/ GDP 2017 PPP \$ Bn)
	1	2
India	30-35	399
China	60-65	624
Indonesia	29	318
EU	29	192
Japan	26	241
Canada	30	406
Brazil	6	348
Russia	25-30	657

Note: The figures in Column (1) represent the NDCs according to Paris Climate Agreement 2015. Thereafter, most of these countries have agreed to revise these targets in COP26 Summit. These commitments are in terms of the percentage reduction in GHG emission intensity (GHG emission/GDP). The countries listed here are the top emitters as per the total GHG emissions (kt of CO2 equivalent), according to the data published by the World Bank. The major emitters include USA and Iran. NDCs for USA were not available since the country had withdrawn from Paris Agreement. The Source also didn't have data on NDCs for Iran. Reference year for India, China, Indonesia and Canada is 2005. Reference year for EU and Brazil is 2010. Reference year for Japan and Russia are 2013 and 1990, respectively. **Source:** <https://climateactiontracker.org>.

works on a 5-year cycle of increasingly ambitious climate action carried out by countries. The first set of NDCs are now available and are presented for the major countries in Table 1. With the Paris Agreement, countries established an enhanced transparency framework (ETF) to track the progresses at country-level. Under the ETF, starting in 2024, countries will report actions taken, progress made in climate change mitigation, adaptation measures applied and support provided or received in a transparent manner.

Figure 1 shows that except Iran, almost all the countries have made considerable progress in reducing the GHG emission intensity measured as a ratio to their GDP, between 2000-2010 and the post-Paris deal years. Although the emission intensity since 2015 for Japan and Brazil are relatively closer to their levels prior to 2010, they have remained far lower than rest of the countries/regions in this regard. For the world, the GHG emission intensity between 2015-18 has been 18 per cent lower than the average between 2000-10.



China has led with 35 per cent decline followed by Indonesia at 31 per cent and USA at 28 per cent. The decline in GHG emission between these periods has been 26 per cent for India closely followed by the EU at 25 per cent. The progress in terms of GHG emission intensity to GDP till 2018 has been quite close to the NDCs, except for Iran and Japan. However, the absolute GHG emission for the world was higher by 21 per cent between these two periods. Only the USA and EU have been able to reduce their absolute GHG emission levels between 2015-18 as compared to 2000-10. Therefore, it may require significantly more effort beyond the Paris deal, including the transfer of appropriate technologies from Advanced Economies to the Emerging nations to fully counter the adverse effects of GHG emissions.

As far as the reduction in emission intensity from industries is concerned, China is followed by the USA and EU (figure 2.1). However, emerging countries that rank high in terms of industrial emission intensity are yet to embark on a path to sufficiently reduce the emission intensity. This would require transfer of appropriate technologies from their developed

counterparts, as well as enforcing appropriate protocols consistent with their needs for rapid industrial development. Both India and Indonesia continue to rank high in terms of emissions from electricity generation, and also showed very little decline in GHG emission between 2008 and 2015 from that sector (figure 2.2). A significant decline in GHG emission intensity from electricity generation came from China, USA and EU, while the intensity has increased for Japan and Brazil. Therefore, a significant effort would also be required to bring down the emission intensity for emerging countries like India, Indonesia, Brazil and also for developed countries like Japan. On the user end, for example, India ranks quite low in terms of per cent of domestic transport kilometre powered by zero emissions fuels among the major emitters (figure 2.3). In fact, there is a marginal decline in the usage between 2010 and 2017. The world average in this regard had increased between 2010 and 2017, led by Indonesia, USA, EU and China.

Figures 2.1, 2.2 and 2.3 together show that there is significant need for improvement in the emission parameters across major sectors in India that use fossil fuel. Several policy instruments are already at work (See Ghosh et. al. (2021)). There are several other policy tools including carbon taxation, public investment, public guarantees, Emission Trading System², Feebates³ etc. that are being studied in academic and policy forums (Krogstrup and Oman (2019), IMF's Fiscal Monitor (October 2019), Dilip and Kundu (2020)). The increased push towards the production and usage of energy from alternative sources potentially exposes some sectors that are heavily energy dependent to some risks. In the next section, we identify the major sectors that are exposed to such risks.

² Firms are required to hold an allowance for each ton of their emissions and the government sets a cap on total emissions

³ Imposition of fees on above-average emissions and rebates for below emission rates

Figure 2.1: Industry Emission Intensity per GVA

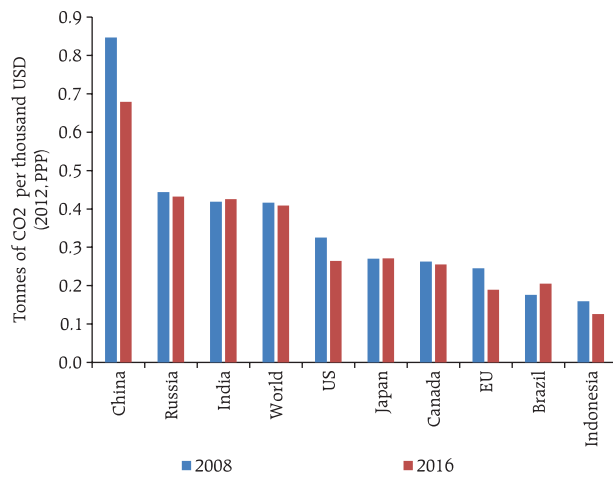


Figure 2.2: Electricity Emission Intensity (gCO2/kWh)

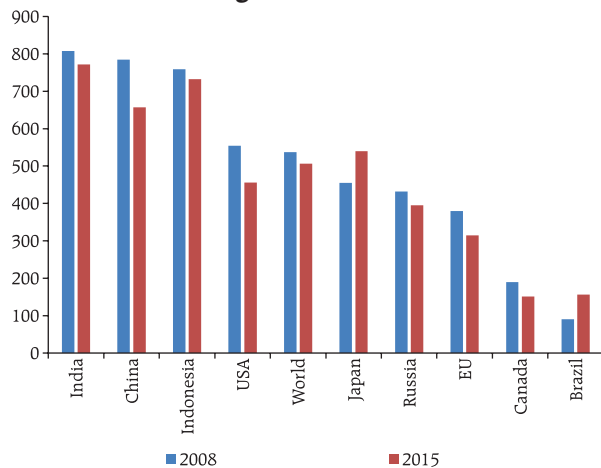
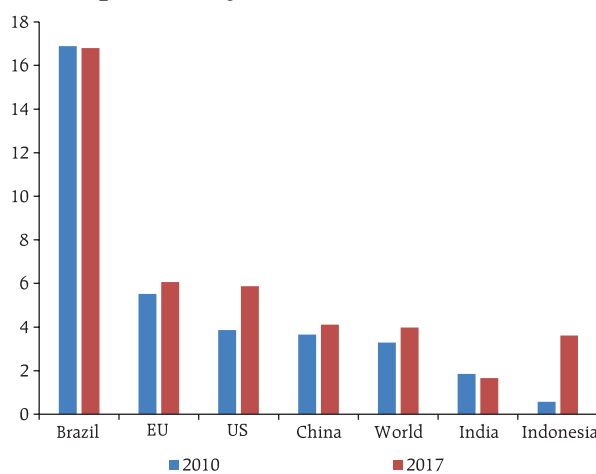


Figure 2.3: Percent of domestic transport km powered by zero emissions fuels



Note: In figure 2.1, the figure for Canada pertains to 2015.
Source: <https://climateactiontracker.org>.

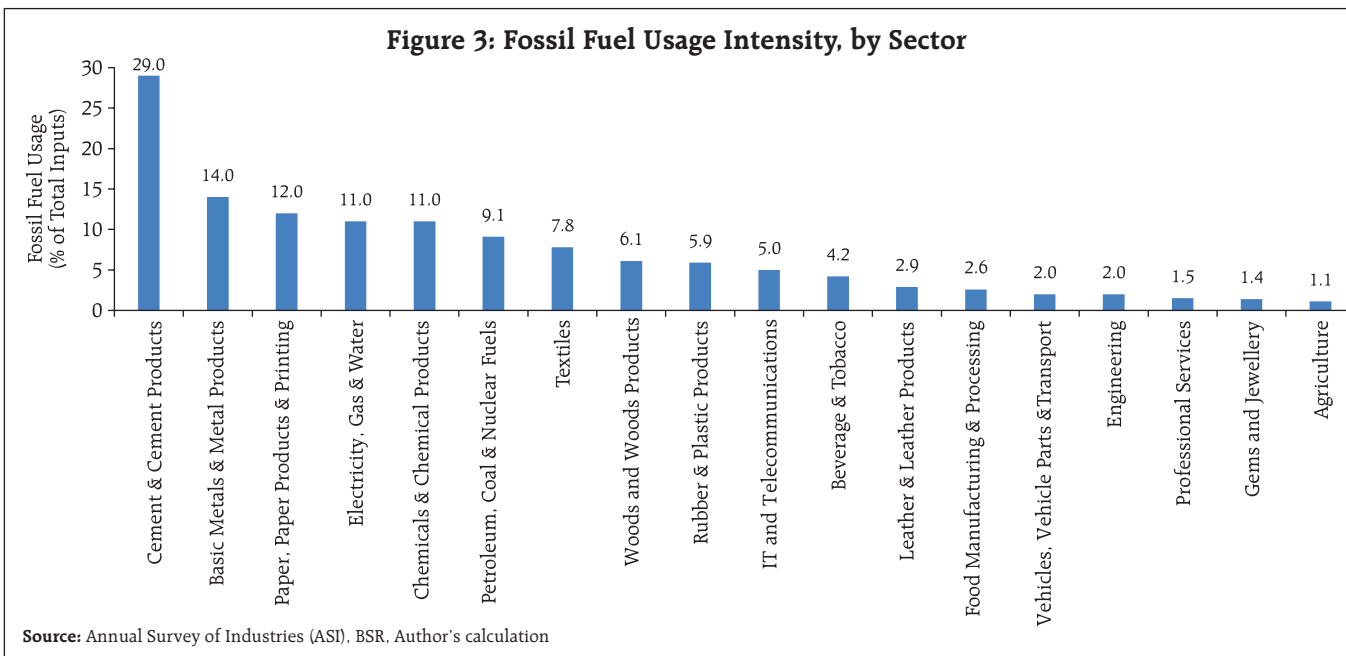
III India's Exposure

(a) Fossil Fuel

In this section, we examine to what extent India is dependent on fossil fuel and how the trend has evolved over the years. We use the Annual Survey of Industries (ASI) data for the year 2016-17 to compute the fossil fuel intensity for each sector. The ASI data provide information on production processes and finances at the establishment level. We use the information on input usage to compute fossil fuel intensity. Specifically, we compute the value of electricity, petrol/ diesel, coal as a share of total inputs used by a particular industry (we take a weighted sum of all establishments in a particular industry). We adjust the value of electricity to take in to account the fact that 37.8 per cent of electricity is produced by renewable energy/non-fossil fuel sources (Central Electricity Authority). Figure 3 presents the share of fossil fuel in total inputs across major sectors in the economy. It tells us that cement products and basic metals are the two most exposed sectors to fossil fuel as 29 per cent and 14 per cent of total inputs, respectively, are sourced from fossil fuel. It may be noted that the cement industry has undergone several technological advancement in production process in recent years which has reduced its fossil fuel intensity considerably (State of the Economy, December 2021)

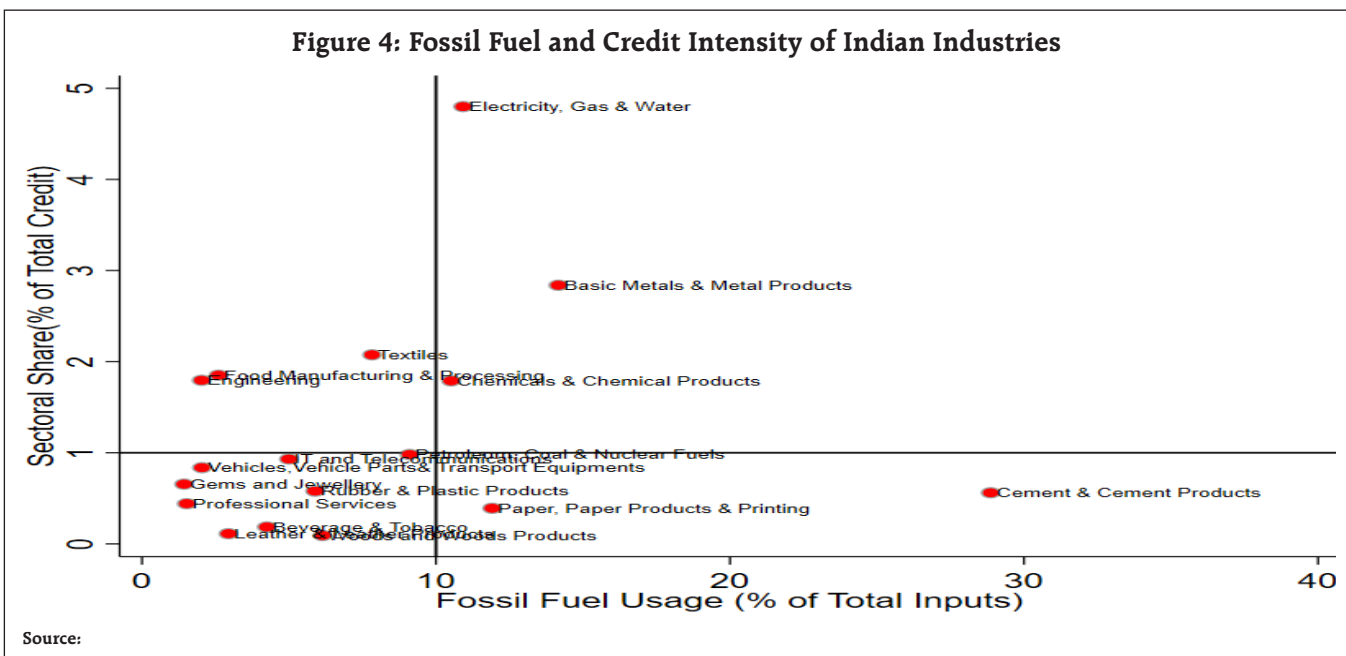
(b) Bank credit

India is an emerging market economy, where a large proportion of corporates is dependent on banking sector funds for financing their working capital and capex requirements. Though in the recent years there is some evidence of corporate deleveraging (Herwadkar, 2017), the banking sector has remained the predominant source of funds for most of the industries. In view of the above, we map fuel intensity and credit intensity



of Indian industries to identify top exposures. ASI data for fossil fuel usage intensity and BSR data (as of March 2019) on credit outstanding for each sector are used for this purpose. Figure 4 shows the sectoral shares in outstanding credit

on the y-axis and the fossil fuel intensity of the sectors on the x-axis. Sectors like electricity⁴ and basic metals absorb significant proportion of total credit disbursed by the banking sector but have moderate exposures to fossil fuel. Sectors like



⁴ Firms which are registered with Central Electricity Authority are not covered under ASI. However, the energy intensity of the sector, as calculated from the ASI data can be considered to be representative of the entire sector.

cement production in turn have large exposures to fossil fuel, but their credit shares are small. So, large vulnerabilities are not expected to emerge in the banking sector from disruptions, if any, in the sectors that are highly exposed to fossil fuel. The three sectors which have large exposure (10 per cent or more) to fossil fuels and relatively higher (1 per cent or more) sectoral share in total bank credit are electricity, base metals and chemicals. However, together they represent only 9 per cent of total outstanding credit.

In order to analyse the extent of dependence on fossil fuel, we first look at how the electricity sector has evolved in terms of transition to cleaner sources of fuel. We focus on the electricity sector first, it being an essential input in almost all production processes. Second, we consider ASI (Division 24), manufacturing of basic metals. Two of the major components of basic metal category are manufacturing of basic iron and steel and casting of iron and steel, which together constitute around 75 per cent of the output of the sector. The FSR, July 2021 presents an Impact Assessment of the Iron and Steel industry (summarized in Annex-1). We analyse the credit growth in the chemical and chemical products industry considering their horizontal and vertical linkages with other sectors of the economy.

Finally, we turn to the Automobile sector. Though our identification matrix does not include automobile sector in terms of the selection coordinates, our interest in this sector is mainly motivated by the low per cent of India's domestic transport kilometer being powered by energy efficient fuels (see Fig 2.3) and a slew of policy initiatives undertaken (e.g. BS VI standards, EV incentives etc.) to make this sector greener. The impact of these measures on the automobile sector is discussed in detail in Section IV.c.

In addition to electricity, chemicals and the automobiles production, other sectors in the economy

may be indirectly dependent on fossil fuel by the virtue of using electricity, petrol/ diesel, coal in the production processes. Hence, we also examine the degree of indirect dependence of different sectors.

IV. Fuel sources

a. Electricity

Figure 5.1 below shows the share of different types of plants in the total installed electricity generation capacity for the three years 2010, 2020 and 2021. We observe that the share of power plants using renewable energy sources (RES) has increased between 2010 and 2021.⁵ Interestingly however, the share of thermal energy plants has remained unchanged during the same period. Thus, the increase in the share of RES plants has been at the cost of other types of plants like hydro and nuclear, the shares of which have decreased significantly between 2010 and 2021.

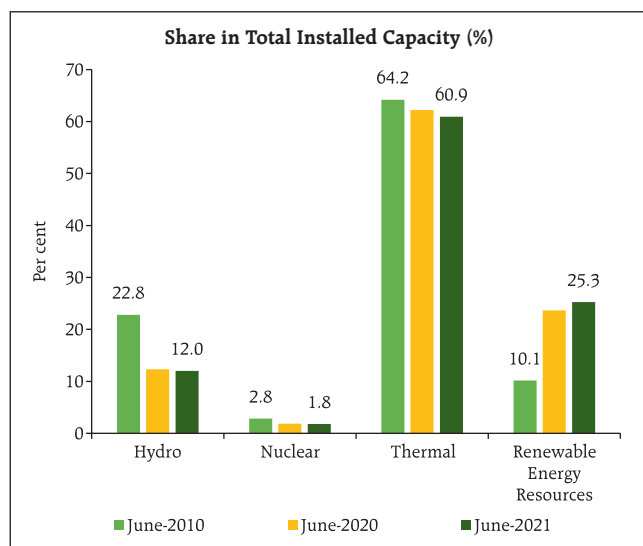
Within thermal energy plants (Figure 5.2), the main source of fuel has been coal and this has remained so over the years. In fact, the share thermal power plants using coal as fuel, increased from 82.4 per cent to 86.3 per cent between 2010 and 2021. Thus, while RES plants have gradually increased their capacity over the years, the majority of the power plants are still thermal power plants that use coal as the major source of fuel for electricity generation.

b. Chemical and Chemical Products

The usage of fossil fuels in production of chemical products might be limited as compared to the other two sectors, *viz.*, electricity and basic metals. However, like every other industrial activity, this sector uses energy as its intermediate input. As Figure 3.1 suggests, the energy sector in India is predominantly dependent on the conventional

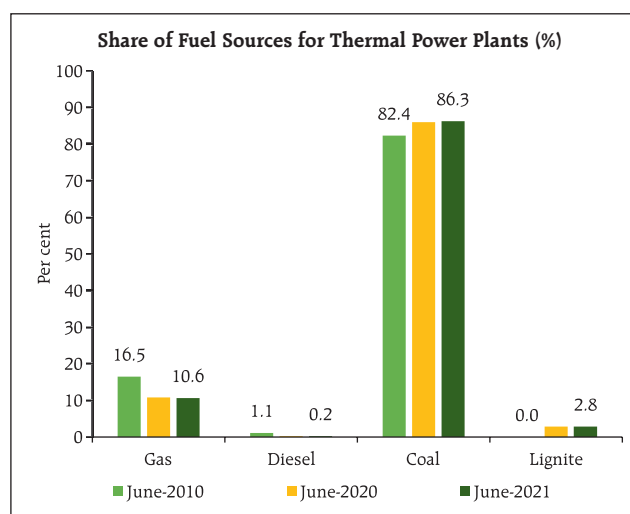
⁵ Data on power generation from RES is available only from 2018. The share of RES in total power generated was 8.4 per cent in 2018, 9.5 per cent in 2019, 10.1 per cent in 2020, and 10.5 per cent in 2021.

Figure 5.1: Total Installed capacity, by type



Source: Central Electricity Authority, CEIC.

Figure 5.2: Fuel sources used by thermal power plants

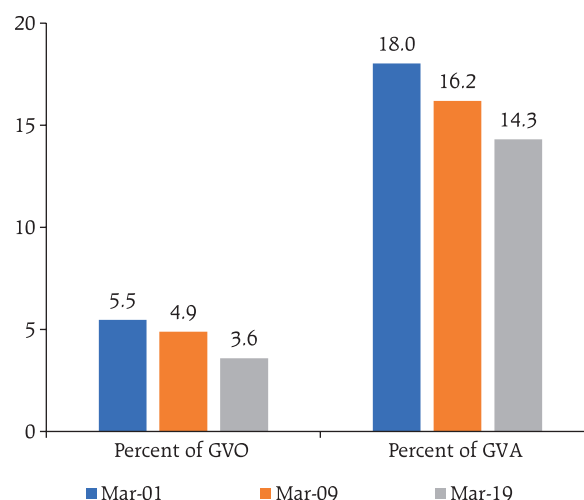


or fossil fuel based sources. In this respect, the chemical sector would also be exposed to risks arising from any changes to the energy usage portfolio in the coming years. Our estimates in figure 6 suggest that the share of energy related costs are about 3.6 per cent of the value of gross output that this sector produces. However, this share has substantially fallen since the beginning of this century. Energy usage as percentage of gross value added has also fallen in these lines (figure 6).

c. Automobile: Fuel sources

The move to cleaner fuel sources has been an important challenge for the automobile sector. Emission standards that follow a clear roadmap towards reducing greenhouse gas emissions have been at the center of discussions on climate change. India has also set forth its own agenda towards enhancing the emission standards aligning them with the global standards. The Government of India issues guidelines under the Bharat Stage Emission Standards (BS) which are based on the European standards. The BS-IV standards have been enforced across all of

Figure 6: Energy Input Elasticity: Chemical and Chemical Products



Note: GVO=Gross Value of Output; GVA=Gross Value Added
Source: Authors' calculations using India KLEMS Database.

India since 2017. In 2016, the GoI announced that India will move to BS-VI standards by skipping BS-V standards. Recently, the Supreme Court of India ruled that BS-IV registrations will stop from April-2020⁶. However, the Supreme

⁶ <https://www.thehindu.com/news/national/sc-bans-sale-of-bs-iv-vehicles-from-2020/article25313685.ece>

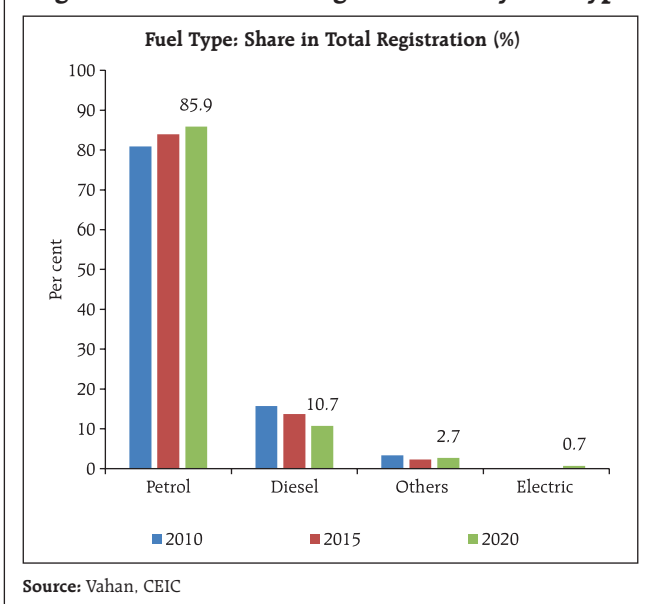
Court provided some relief to the automobile sector due to the Covid-19 pandemic induced lockdown restrictions. These relaxations allowed the manufacturers and dealers to clear up their stock of BS-IV vehicles⁷. The Government has also pledged to promote electric vehicles which are a cleaner source of fuel for the emission standards. The International Energy Agency has estimated that only 30 per cent of the total vehicles in India will be electric by 2030⁸. Figure 4 shows the shares of new vehicle registrations across all fuel types. We observe that although there has been an increase in the share electric vehicles in total registrations, the majority of the vehicles run on petrol. Thus, to increase the share of electric vehicles, a large thrust is needed, and it may not happen overnight. Moreover, even if

there is a switch towards electric vehicles, since electricity generation is mainly dependent on fossil fuel (as shown in the previous section), the indirect dependence of fossil fuel needs to be carefully assessed. In our opinion, to reduce the absolute dependence on fossil fuel, there should be a coordinated move towards renewable energy sources for electricity generation, along with a shift towards electric vehicles. However, public policy needs to take cognizance of the resultant loss of employment in the fossil fuel sector during such a transition, and smoothen this short-term problem with appropriate measures.

V.1 Bank Credit: Direct Impact

As of March 2020, the share of electricity generation in outstanding bank credit stood at 7.5 per cent and 4.0 per cent, for the public sector banks and the private sector banks, respectively (Figure 8). The shares have increased for both public and private sector banks between March 2010 and March 2020. The increase in the share of electricity in outstanding credit is sharper in case of the private sector banks.

Figure 7: Automobile Registrations, by fuel type



⁷ <https://www.financialexpress.com/auto/industry/supreme-court-extends-bs4-vehicle-registrations-ban-next-hearing-on-august-13-registerbharat-stage4-bs5-vehicle-after-april-2020-fada-dealership/2041054/>

⁸ <https://inc42.com/infocus/electric-vehicles-this-week/electric-vehicles-this-week-assessing-indias-2030-electric-mobility-goals-more/>

Figure 8: Industry Share in Total Credit Outstanding (Excl. Personal Loans)

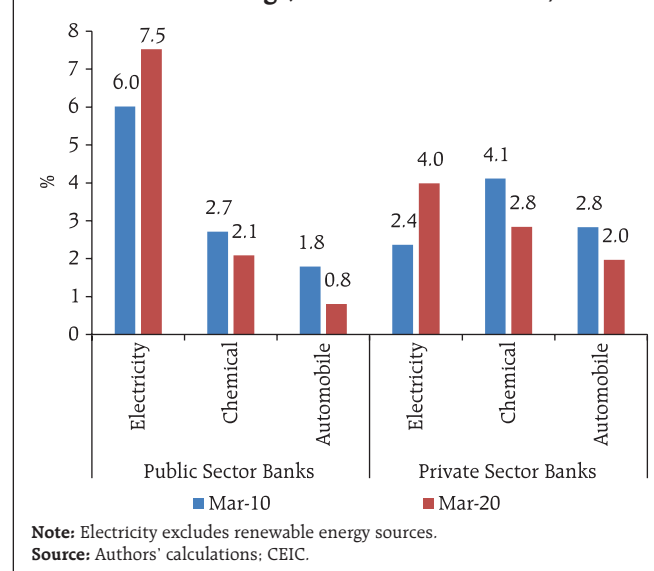
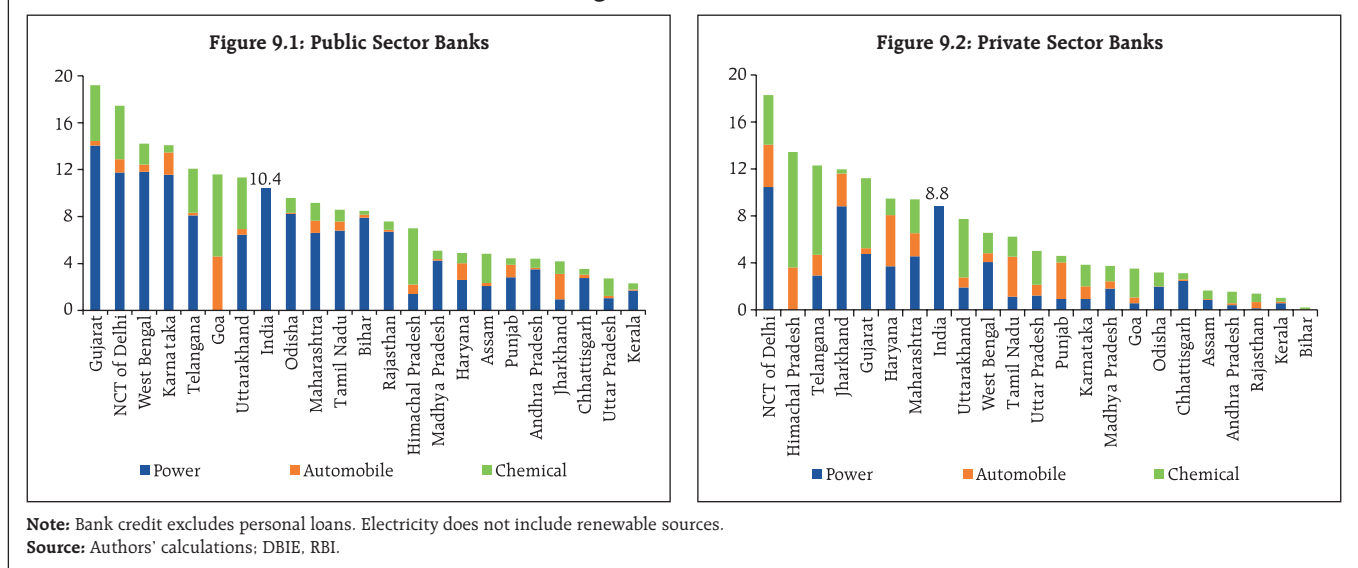


Figure 9: Share of Electricity, Chemical and Automobile Productions in Outstanding Bank Credit-March 2020



On the other hand, share of bank credit to automobile industries were lowest at 0.8 and 2.0 per cent as at end-March 2020, for public and private sector banks for the corresponding periods, respectively. The shares have fallen from 2010 for public and private sector banks.

There exists a wide variation across states in terms of banking sector's exposure to these sectors (Figures 9.1 and 9.2). The aggregate share of these three sectors exceed the national average in case of Delhi, Gujarat, Telangana, Karnataka, West Bengal, Uttarakhand and Goa for the public sector banks. Of these states, except for Goa, the bank credit to the power generation sector has the largest share. In case of private sector banks, power generation, however, exceed the other two only in case of Delhi, Jharkhand and Maharashtra, among the states that exceed the national average.

From the above charts, it may be assessed that the direct exposure of the banking sector to the 3 -fossil fuel-based industries may not be alarming, considering that the combined share of electricity generation, chemical products and automobile in total bank credit is around 10 per cent for public sector banks and around 9 per cent for the private sector banks.

The exposure of the banking sector has so far been very limited to alternative sources of energy. At the all-India level, only about 8 per cent of the bank credit deployed in the electricity industry is towards the non-conventional energy production (Figure 10). The ratio varies from 17 per cent in Punjab to 0.1 per cent in Odisha. Although, the share of non-conventional energy in utility sector credit is higher for the private sector banks (14.8 per cent), it is only 5.2 per cent in public sector banks (Table 2).

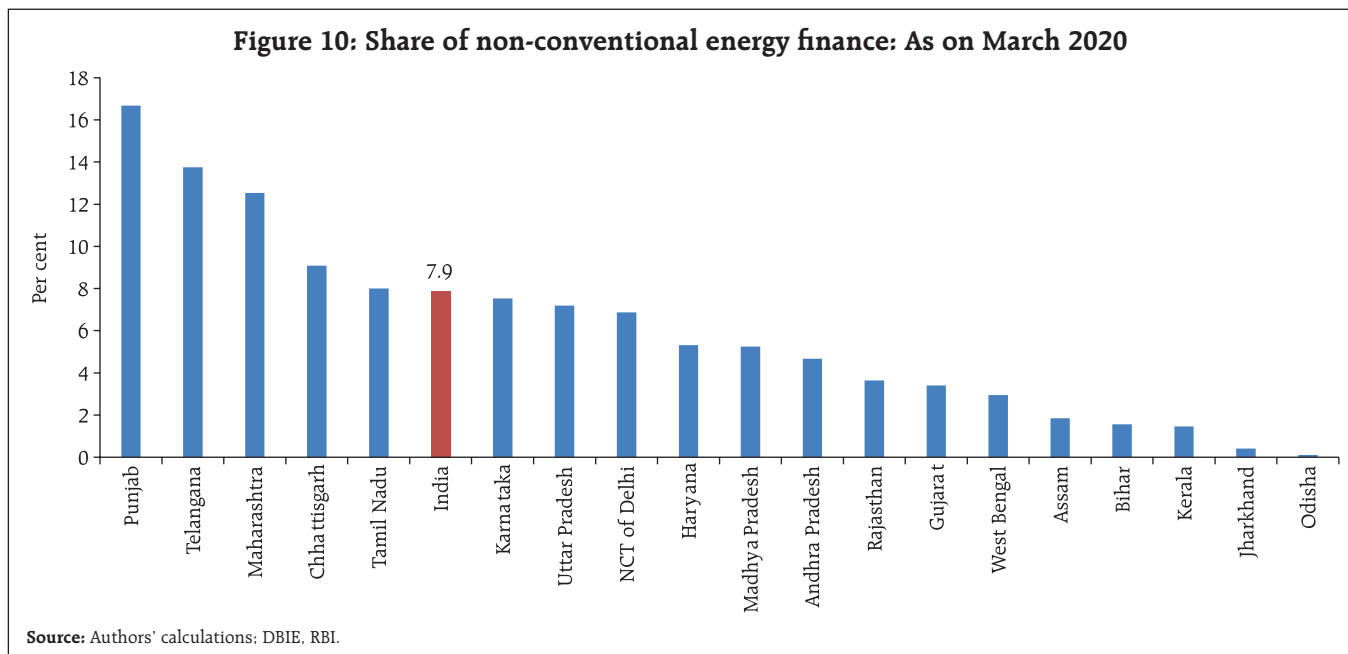


Table 2: Bank credit outstanding to the non-conventional energy as on March 2020

	Public Sector Banks	Pvt. Sector Banks	Other Banks
Amount outstanding (INR Cr.)	21,655	12,302	2,586
As % of utility sector credit	6.2%	11.9%	27.1%
As % of total bank credit	0.5%	0.5%	0.7%

Note: Utility=Electricity, gas and water supply.
Source: BSR, RBI., Authors' calculations.

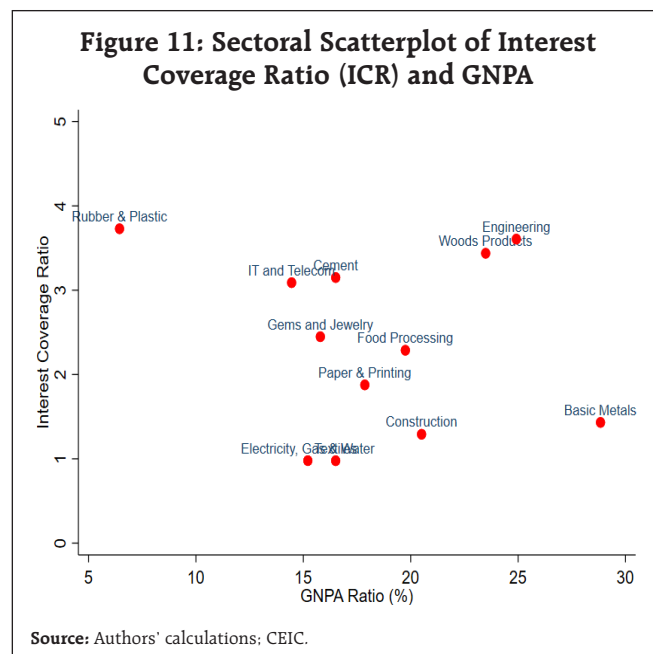
V.2 Bank Credit: Indirect Impact

The previous section discusses the exposure of the banking sector to the power sector, chemicals and the automobile sector. Any change in policy regarding fossil fuel usage will have direct impact, as it is one of the crucial inputs, for these three sectors. However, almost all sectors in the economy are indirectly exposed to fossil fuel by virtue of using electricity, petrol/ diesel, coal in their production processes. In India, 62.2 per cent of the total electricity generated is sourced from fossil fuel (the rest from renewable/ non-fossil sources)⁹. The indirect exposure of various industries to fossil fuel has been discussed in section

⁹ Source: CEA, as of June-2020.

III(a). In the present section, we analyse the sectoral sensitivity of banks to this indirect exposure through interest coverage ratio and GNPA ratios.

The sectors which have high input intensities of fossil fuel through indirect exposure are cement, basic metals, paper products, and textiles (figure 3). We assume that because of a transition to green energy



and shifts in input mix, there could be some pressure on input costs in these sectors in the short-term. Depending on the market structures and pricing-power, this increase in cost could be transferred to the end-users or could be borne by the firms. In the second scenario, the EBITA of the representative firm could take a hit leading to worsening of loan serviceability. This, in turn, could lead to an increase in GNPA ratio of such sectors. Figure 11 plots the interest coverage ratio (ICR) and existing GNPA ratios of different sectors. On the whole, there is a need to closely monitor all such industries that have low ICR, high GNPA ratio and high energy input intensity to prevent spillover to the broader banking sector.

VI. Conclusions

To assess the potential risks to financial stability posed by climate change and various policy responses, this article examines Indian banks' direct and indirect exposure to fossil fuels. It observes that the combined share of outstanding bank credit held by the three sectors directly exposed to fossil fuels, namely electricity, chemicals, and automobile, is low for both the public and private sector banks. Numerous other industries, on the other hand, are indirectly dependent on fossil fuels and account for a sizable portion of bank credit. Some of these have a low ICR and a high GNPA ratio at the moment, and thus may

require close monitoring during the transition to green energy.

References:

Dilip, A. and Kundu, S. (2020), "Climate Change: Macroeconomic Impact and Policy Options for Mitigating Risks", *Reserve Bank of India Bulletin*, April.

Ghosh, S. Nath, J. and Ranjan, A. (2021), "Green Finance in India: Progress and Challenges", *Reserve Bank of India Bulletin*, January.

Herwadkar, S. S (2017), "Corporate leverage in EMEs: did the global financial crisis change the determinants?", *BIS Working Papers*, No 681

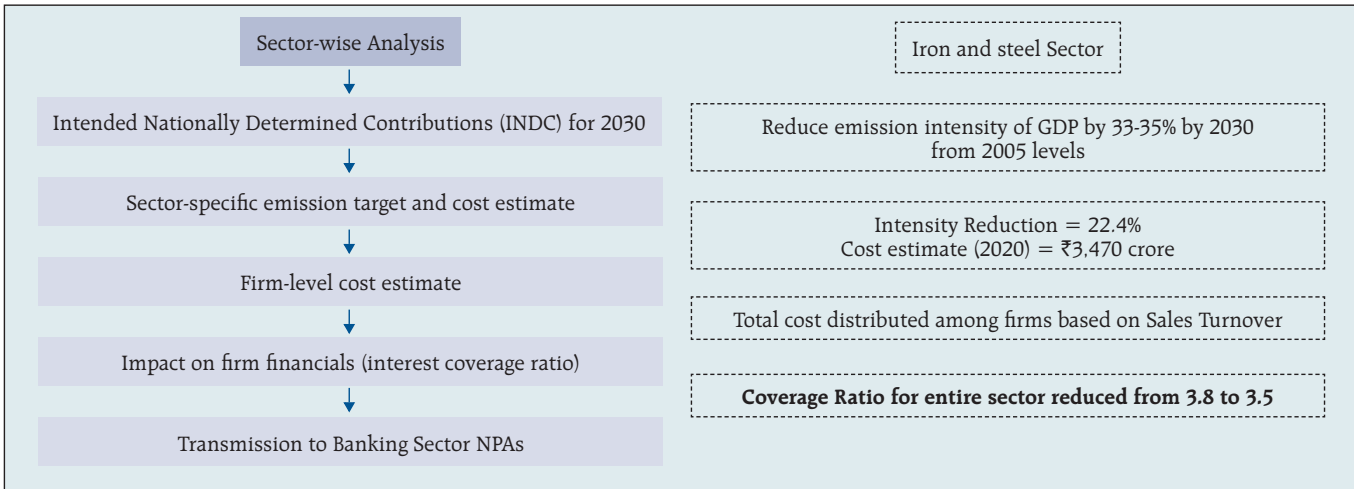
IMF (2019), "Fiscal Monitor-How to Mitigate Climate Change", October, Washington DC, USA.

Jain, S. (2020), "Financing India's Green Transition", *ORF Issue Brief No. 338, January 2020, Observer Research Foundation*

Krogstrup, S., W. Oman, (2019), "Macroeconomic and Financial Policies for Climate Change Mitigation: A Review of the Literature", *IMF Working Paper*, No. 19/185

State of the Economy (2021), *Reserve Bank of India Bulletin*, December

Annex



Source: Financial Stability Report, RBI, July 2021.

*Decoding Fair Value Hierarchy in Ind AS Financial Statements of NBFCs**

This article examines the trends in classification of assets and liabilities by Non-Banking Financial Companies (NBFCs) in terms of their fair value hierarchies, as evidenced in the financial statements published by these companies in the Ind AS format. Ind AS has introduced the disclosure of fair value hierarchy of even those assets/liabilities which are not normally measured at fair value, to reflect the extent of illiquidity. More specifically, the article looks at Level 3 assets which are considered as highly illiquid and their proliferation in financial statements of such companies. Notably, the article observes a fair degree of overlap between Level 2 and 3 hierarchies for NBFCs.

1. Introduction

An important accounting development in current times is the application of the Indian Accounting Standards (Ind AS), which are in tune with globally accepted reporting standards, namely International Financial Reporting Standards (IFRS), to the financial statements of the Indian corporate sector and non-banking financial companies (NBFCs) regulated by the Reserve Bank of India (RBI). An essential element of Ind AS is the application of the concept of fair value for the valuation of assets and liabilities. This article focuses on Ind AS 113 which deals with fair value-measurement of assets and liabilities and its implications for NBFCs. The Fair Value of an asset is usually determined by the market and hence subject to fluctuations. It also almost offers the best price that an asset would fetch if sold in an equitable market or

supplies the best estimate of what needs to be paid to extinguish a liability currently, that is the ease with which they can be liquefied (asset) or liquidated (liability). Historical costs are baulked upon in current times, since they represent acquisition costs and may perhaps not stand the test of time. As we progress and undertake an in-depth study of Ind AS 113, the standard under IND-AS which deals with the subject of Fair Value and its hierarchy, it would be easy to comprehend why Accounting Standards desire that accountants depict even those assets/liabilities that cannot be fair valued, at the nearest fair or current values they can fetch.

Under Ind AS 113, assets and liabilities are classified under three levels - Levels 1, 2 and 3, depending upon the availability of quoted prices and market observable inputs. This article focuses more on Level 3 assets and liabilities, for which there is little or no market activity on the measurement date, making the inputs for such assets and liabilities unobservable.

In the immediate aftermath of the Global Financial Crisis of 2008, the search for market prices and the emphasis on "mark to market" aggravated soon into concerns when assets could not find a market price in the global downturn. Evaluation of fair values suffered a huge beating and aspersions were cast on the veracity of matrices and formulae used, internal methodologies adopted to value risky housing assets, which did not find comparable prices. More prominent among these were Level 3 assets that required certain assumptions, estimates and models for determination of fair value.

It is, therefore, necessary to understand the rationale behind categorising assets under Level 1, 2 or 3 from the perspective of a prospective investor who desires to subscribe to the capital of an NBFC. Such investors would be interested in the liquidity and solvency of the investee company and this is where adequate justification for such categorisation may become relevant. Such a justification would be significant also for auditors and regulators, particularly

* This article is written by R Kesavan, RBI, Kolkata and Syed Musharaf Ali, RBSC, RBI, Chennai. The views expressed in this article are those of the authors and do not represent the views of Reserve Bank of India. Critical inputs/suggestions provided by M. Sreeramulu, RBSC are greatly acknowledged.

as the RBI has made the Liquidity Coverage Ratio (LCR) mandatory for NBFCs.

Against, this backdrop, the article attempts to address the following questions:

- a. Can fair value be determined at all points in time?
- b. Whether assets that cannot be fair valued come with certain advantages and/or disadvantages?
- c. Whether cost as a model is appropriate when fair values cannot be measured with respect to available market benchmarks?
- d. Are companies veering towards certain models (Discounted Cash Flow (DCF), for instance) for determining present value of cash flows from an asset?
- e. Is there a change in hierarchy of levels on account of a change in business models?
- f. Are there overlaps between Level 2 and 3 hierarchies and how to resolve such overlaps?
- g. How apt are disclosures in capturing the essence of Level 3 assets on balance sheets?
- h. Is there a correlation between the business models of NBFCs and the extent of their Level 3 assets?

The article is divided into five sections. Section 1 discusses the methodology for fair value hierarchy followed under Ind AS 113 for classification of assets and liabilities. Section 2 gives details on the sample of NBFCs drawn for the study, while Section 3 discusses the details of the sample used for the study. Section 4 provides the salient findings and Section 5 concludes.

2. Fair Value Hierarchy under Ind AS

Fair value under Ind AS 113 is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The Ind AS

classifies assets and liabilities under three levels of fair value hierarchy as illustrated below:

1. **Level 1-** Financial assets (liabilities) are measured by reference to unadjusted quoted prices in active markets for identical assets (liabilities).
2. **Level 2-** Fair value is measured using inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (*i.e.* price) or indirectly (*i.e.* derived from prices). *e.g.* Valuation using credit spreads, yield curves.
3. **Level 3-** Fair value is measured using inputs that are not based on observable market data (unobservable inputs). Instead, fair values are determined using a valuation model based on assumptions that are neither supported by prices from observable current market transactions nor are they based on available market data. *e.g.* Valuing Unquoted equity shares.

Evidently, on account of their illiquidity, Level 3 assets are difficult to measure or value. These assets are not traded frequently, and hence it is difficult to assign a reliable and exact market price to them.

3. Sample of NBFCs Used for the Study

For this study, we identified ten NBFCs which published their financial statements by following Ind AS during 2018-19 and 2019-20. A conscious attempt was also made to include different types of NBFCs in our sample. Total asset size of these ten selected NBFCs account for 6.2 per cent of total assets of NBFC sector as at end March 2020. Of these ten NBFCs, five were 'loan companies', three 'investment companies', one 'asset finance company' and one 'core-investment company'. Subsequent to harmonization of NBFC categories vide RBI circular dated February 22, 2019, these categories of 'loan company (LC)', 'investment company (IC)' and 'asset finance company (AFC)' have

been merged into a new category *viz.* 'Investment and Credit company (ICC)'.

4. Findings from the Study

i. Lack of common forms for disclosures

- Though two years have elapsed since these companies started reporting financial information under Ind AS, most of them had not veered around common forms and ways of disclosing information.

ii. Use of "cost" as a predominant method for measuring fair value

- Ind AS refers to three distinct methods of measuring the fair value: (i) Measurement at cost ie. current replacement cost; (ii) application of certain valuation models based on premises that help in determining expected cash flows and their present value - the most common method being used is the "Discounted Cash Flow" method under this category (also known as income approach); (iii) based on available market values (also known as market approach), which offers a superior measurement of fair values.

In our sample, companies were generally seen adopting "historical cost" for fair value measurement of many of their investments. The most prominent among them were unquoted instruments and preference shares. These instruments do not find an easy benchmark against which their values can be compared and hence were valued at cost. More importantly, these were categorised as Level 3 assets in most companies. However, assets/liabilities measured at "historical cost" may need a deeper probe. After all, one of the important prescriptions of Ind AS 113 is that the impact of Level 3 assets on profit and loss/other comprehensive income must be disclosed invariably¹.

The pitfalls of "cost" model are two pronged. In the absence of adequate market

information on comparable products, it may be well-nigh impossible to ascertain whether the fair value of such instruments is above the acquisition cost or below it. Presuming it is below, the investment would actually be non-performing meriting an "impairment provision"; if it is above "cost", then the company is probably missing out on an important source of profit. Either way it makes sense to probe all Level 3 assets when they are valued at "cost".

iii. Overlap between Level 2 and Level 3 assets-

We observed that Level 3 assets could not be studied without referring to and contrasting with Level 2 assets. There was a thin line demarcating the two. The ascription of hierarchy demands that the valuation method is understood adequately. However, the hierarchy level alternated between Level 2 and 3 based on the inputs used².

iv. Need for standardised and clarified disclosures

- The extent of the unobservable inputs used decides the fair value hierarchy of assets. For instance, there is some degree of Level 2 determination in using market observable data such as secondary market prices. However, if there are significant unobservable inputs in the form of assumptions in estimation of cash flows that form the basis for estimating the Discount Rate, then it makes assets/liabilities predominantly Level 3. This is more evident in the case of loans (typical "amortised cost" assets) whose fair values are determined on the basis of contractual cash flows discounted using market rates, incorporating

¹ KPMG Implementation Guide (Updated 2021) [<https://assets.kpmg/content/dam/kpmg/in/pdf/2021/03/ind-as-itfg-interpretations-application-issues.pdf>]

² PWC Ind-AS Presentation and Disclosure Checklist [<https://www.pwc.in/assets/pdfs/publications/2018/ind-as-presentation-and-disclosure-checklist-2018.pdf>]

the counterparties' credit risk. We thus see the confluence of two types of inputs - Level 1 or 2 inputs in the form of market rates and Level 3 unobservable inputs that go into determination of credit risk of the counterparty where the entity has to use its own models to arrive at a suitable credit risk spread. The same logic applies to borrowings (liabilities) conversely. Clearly, there is need for standardised and clarified disclosures to understand the valuation methods used by NBFCs.

We observed that investment property, which is an asset deployed to earn rental income or held for appreciation of investment, was attributed fair value hierarchies differently by different companies depending on the extent of unobservable inputs that went into the valuation. Investment property was attributed a Level 3 classification as model inputs were extraneous when an external expert or broker valued the property. However, investment property when fair valued as Level 3, recorded a significantly high value. Some companies placed this asset in Level 2 category when observable inputs in the form of market data on corresponding prices of similar property were available.

- v. Need to understand unobservable inputs for valuation-** We observed the need for a thorough analysis and understanding of inputs used in measuring and disclosing Level 3 assets. This was because the ultimate sale price did not necessarily match the price estimated using Level 3 inputs. This raised doubts on the inputs used for such valuation. Hence, the solution is in reviewing the inputs used especially when presumptions are disproved by outcome. It is also necessary to hone the inputs and have supportive evidence for using specific inputs.

- vi. Discounted Cash Flow method (DCF): Most popular method for valuation of Level 3 assets** – DCF method was the most widely used method for Level 3 asset valuation. Most companies used the method to compute fair values of debt securities and other borrowings, which normally do not lend themselves to fair valuation. Details on DCF methodology are offered in Annexure 1. None of the sampled companies made use of any other method, like Adjusted Present Value (APV) method or Weighted Average Cost of Capital (WACC). However, the DCF method is premised significantly on assumptions and hence requires greater disclosures.
- vii. Shift in fair value hierarchy on account of change in business model³** – There was an interplay of business models prompting companies to shift certain assets/liabilities originally measured at fair value to an "amortised cost" model. To illustrate, it was observed that a few companies categorised loans initially as Fair Value through Other Comprehensive Income (FVOCI) as the business model also envisaged sale of loans though partial assignment. Such loans were, therefore, originally categorised under FV Hierarchy Level 2, based on observable inputs such as market data. It is worth noting that both amortised cost instruments and FVOCI instruments typically have the features of "hold to collect" contractual cash flows, the latter differing precisely on account of an additional factor, that is, "sale of assets". Subsequently, the companies chose to adopt an amortised cost classification for their loan assets resulting in Level 3 categorisation as it was decided that they would no longer hold the loans for sale (Table 1).

³ In terms of paragraph 8.4.4.1 of Ind AS 109, a change in business model is expected to be infrequent.

Table 1: Comparative position of loans categorized as FVOCI assets – Change in business model

Particulars	Fair value measurement using (as on March 31, 2020)			Total
	Quoted prices in active markets (Level 1)	Significant Observable inputs (Level 2)	Significant Unobservable inputs (Level 3)	
Loans designated under FVOCI	-	-	-	-
(₹ Crore)				
Particulars	Fair value measurement using (as on March 31, 2019)			Total
	Quoted prices in active markets (Level 1)	Significant Observable inputs (Level 2)	Significant Unobservable inputs (Level 3)	
Loans designated under FVOCI	-	4962	-	4962

Further, there were a few instances when the companies chose to move the hierarchy from one level to another with a change in the business model. The trends observed under this head can be best understood if we recognise the precise characteristics of financial instruments categorised as "Amortised Cost", "FVOCI" and those measured at "Fair Value through Profit and Loss (FVTPL)". The classification and subsequent measurement requirements are summarised in Annexure 2. Thus, we see

the emergence of two changes, one in the classification of financial instrument itself, the other in fair value hierarchy.

These changes, of course, seemed logical. This is because FVOCI assets are those where fair value changes are normally captured in the Statement of Other Comprehensive Income (and thus can accrete to net worth/equity), while regular interest streams would pass through Profit and Loss Account. The change in business model adopted by the company was understandable as loans would get best represented as amortised cost instruments, more specifically since the company sought to restrict the sale/assignment of such loans. Secondly, a probable shift from Level 2 (loan measured at FVOCI earlier) to Level 3 taking into account the presence of unobservable inputs like expected losses too appeared logical.

What was, however, interesting was that the parent holding company continued to classify these loans as FVOCI - Level 2 (Table 2). The question of why some companies in the same group retain one form of classification for the same asset than others is intriguing requiring more in-depth analysis.

Table 2: Parent Company Classification of Level 3 Assets

(₹ Crore)

Quantitative disclosures of fair value measurement hierarchy for financial instruments measured at fair value (March 31, 2020)					
Particulars	Data valuation	Fair value measurement using			Total
		Quoted prices in active markets (Level 1)	Significant Observable inputs (Level 2)	Significant Unobservable inputs (Level 3)	
Investments held for trading under FVTPL	March 31, 2020	14439	-	-	14439
Equity instrument designed under FVOCI (unquoted)*	March 31, 2020	-	-	262	262
Equity instrument designed under FVOCI (Quoted)	March 31, 2020	150	-	-	150
Other investments designated under FVOCI	March 31, 2020	2765	-	-	2765
Loans designated under FVOCI	March 31, 2020	-	21660	-	21660
Derivative asset	March 31, 2020	-	172	-	172
		17354	21832	262	39448

Source: Annual Report of a sampled NBFC - 2019-20

viii. Subjectivity in attributing levels of hierarchy: Investments under FVTPL were classified under all hierarchies. For instance, equity shares and share premium were classified as Level 3 assets, which indicated that such financial assets were not quoted. Some companies, however, classified them as Level 1 asset, which indicated availability of market data on the same. Hence, a more prudent choice in terms of selection of instruments (more Level 1 or 2) may inspire confidence in liquidity management of such companies (Table 3). Investments held for trading would require to be classified as FVTPL.

A significant contributor to Level 3 assets is "Security Receipts (SRs)". The cash flows in respect of these are dependent on recoveries from underlying Non-Performing Assets (NPAs). As this involves some empirical estimates in the wake of past performance, it could explain the mix of Level 2 and 3 inputs.

However, most companies placed them under Level 2 hierarchy. RBI's guidance on the subject of valuation of SRs (Guidelines on declaration of Net Asset Value of SRs issued by Securitisation Company/ Asset Reconstruction Company) recognises that these are not easy to value as they combine elements of equity as well as debt and are usually privately placed and unlisted. Further, these should ideally be rated such that the rating is able to reflect present value of anticipated cash flows from underlying assets.

ix. Details on the classification of certain types of asset and liabilities under Level 3: Loans have their own peculiarities in the form of credit risk profile of the borrowers, extent of non-performance and elements of default risk, which may be unique to each borrower. Therefore, they cannot be benchmarked with any known debt with similar characteristics, thereby necessarily falling under Level 3. Similarly, short-term assets/liabilities are

Table 3: Distribution of assets by Hierarchy

(₹ Crore)

Particulars	As at March 31, 2020				As at March 31, 2019			
	Level1	Level2	Level3	Total	Level1	Level2	Level3	Total
Financial assets								
1. Investments at FVTPL:								
Equity shares (including share application money)	3	-	475	478	8	-	477	485
Preference shares	-	-	89	89	-	-	100	100
Mutual fund	745	-	-	745	2064	-	-	2064
Government securities	-	1	-	1	-	1	-	1
Debentures	-	-	860	860	-	-	866	866
Security receipt	-	-	2499	2499	-	-	791	791
Units of fund	-	-	106	106	-	-	189	189
2. Derivative financial instruments	-	155	-	155	-	7	-	7
3. Loans	-	-	24878	24878	-	-	24396	24396
4. Investments at FVTOCI:	-	-	-	-	-	-	-	-
Debentures	-	1162	-	1162	-	2265	-	2265
Government securities	-	-	-	-	-	38	-	38
Pass through certificates	-	-	7	7	-	-	8	8
Equity shares	32	-	-	32	-	-	-	-
Units of fund	-	1	-	1	-	1	-	1
Total financial assets	780	1319	28914	31013	2072	2312	26827	31211

Source: Annual Report of a sampled NBFC, 2019-20.

Table 4: Classification of Short-Term Liabilities/Assets as Level 3

(₹ Crore)

Fair value of financial instruments not measured at fair value (March 31, 2020)					
Fixed assets	Carrying value	Fair value measurement using			Total
		Quoted prices in active markets (Level 1)	Significant Observable inputs (Level 2)	Significant Unobservable inputs (Level 3)	
Cash and cash equivalents	675	675	-	-	675
Bank balances other than cash and cash equivalents	5	5	-	-	5
Trade receivables	867	-	-	867	867
Loans	113417	-	-	114211	114211
Investments	20	-	-	20	20
Other financial assets	350	-	-	350	350
	115333	679	-	115449	116128

Source: Annual Report of a sampled NBFC 2019-20.

classified as Level 3 assets. These include trade receivables, which do not lend themselves to any plausible method of fair valuation (Table 4). The same logic holds also for short term liabilities.

Furthermore, a somewhat analogous position is seen on the liability side as well with "deposits" categorised as Level 2 liabilities (Table 5), while in few cases these are shown as Level 3 liabilities. This is interesting

Table 5: Deposits Classified as Level 2 liabilities

(₹ Crore)

Item	Carrying amount	Fair value measurement using			Total
		Quoted prices in active markets (Level 1)	Significant Observable inputs (Level 2)	Significant Unobservable inputs (Level 3)	
Financial assets					
Cash and cash equivalents	675	675	-	-	675
Bank balance other than above	5	5	-	-	5
Trade receivable	867	-	-	867	867
Loans	113417	-	-	113211	113211
Investments	20	-	-	20	20
Other financial assets	350	-	-	350	350
Total financial assets	115334	680	-	115448	116128
Financial liabilities					
Trade Payables	637	-	-	637	637
Other payables	179	-	-	179	179
Debt securities	41714	-	42333	-	42333
Borrowings other than debt securities	36923	-	-	36923	36923
Deposits	21427	-	21502	-	21502
Subordinated debts	4142	-	4351	-	4351
Other financial liabilities	670	-	-	670	670
Total financial liabilities	105692	-	68186	38409	106595

Source: Annual Report of a sampled NBFC - 2019-20

Table 6: Assets/Liabilities with Multiple Hierarchies - debt securities

(₹ Lakhs)

Item	Carrying amount	Fair value measurement using			Total
		Quoted prices in active markets (Level 1)	Significant Observable inputs (Level 2)	Significant Unobservable inputs (Level 3)	
Financial liabilities					
Trade Payable	10.22			10.22	10.22
Debt securities	150	150			150
Borrowings other than debt securities	1912.30			1912.30	1912.30
Other financial liabilities	28.55			28.55	28.55
Total financial liabilities	2101.07	150		1951.07	2101.07

Source: Annual Report of a sampled NBFC - 2019-20

because the fair value of fixed maturity deposits can be ascertained from rates for similar deposits with similar maturities. Going forward, it would be worth examining what unobservable inputs contribute to Level 3 categorisation in deposits.

Debt securities, by nature, lend themselves to fair valuation based on market data. This is apparent since many companies

ascribed Level 1 or 2 characteristic to them (Table 6).

Normally, loans to employees are at rates below market rates and therefore their fair value must be measured by discounting the cash flows at the market rate for a comparable loan (Table 7). However, a few companies valued loans to employees at carrying amounts and treated the same as fair value (Level 3).

Table 7: Valuation of Employee Loans

(₹ Lakhs)

Item	Carrying amount	Fair value measurement using			Total
		Quoted prices in active markets (Level 1)	Significant Observable inputs (Level 2)	Significant Unobservable inputs (Level 3)	
Financial assets					
Cash and cash equivalents	46.34	46.34	-	-	46.34
Bank balance other than above	8.24	8.24	-	-	8.24
Trade receivable	1.77	-	-	1.77	1.77
Loans					
Loans to employees	0.43	-	-	0.43	0.43
Loans – SME & CF	3055.23	-	-	3055.23	3055.23
Investment in subsidiaries – Equity shares	175	-	-	175	175
Other financial assets	1.61	-	-	1.62	1.61
Total financial assets	3288.62	54.57	-	3234.05	3288.62
Financial liabilities					
Trade Payable	10.22	-	-	10.22	10.22
Debt securities	150	150	-	-	150
Borrowings other than debt securities	1912.30	-	-	1912.30	1912.30
Other financial liabilities	28.55	-	-	28.55	28.55
Total financial liabilities	2101.07	150	-	1951.07	2101.07

Source: Annual Report of a sampled NBFC - 2019-20.

x. Multiple Fair Value Hierarchy in Mutual Fund Investments:

We observed two groups of mutual funds, one that received a Level 1 attribute and the other categorised under Level 3 (Table 8). When the investment was in an unlisted open-ended fund, determination of fair value of such investment would require certain adjustments to Net Asset Values (NAV) of similar funds. In such cases, the inputs led to a Level 3 hierarchy.

xi. Extent of correlation between Level 3 assets and business model –

We ascertained whether companies with similar business models had similar patterns of holding Level 3 assets. The results are summarised in Table 9.

Table 9 indicated the following:

- i. Investment and Credit Companies had a significant quantum of Level 3 assets.
- ii. In the case of ICCs with predominantly investments, we observed a mixed pattern with some entities having high proportions of Level 3 assets, while others having very low proportions. This may suggest that the companies having low proportions of Level 3 assets would prefer more marketable securities and may not be too keen on illiquid investments.

Table 8: Classification of Mutual Funds

(₹ Lakhs)

Particulars	Fair value hierarchy	March 31, 2020	March 31, 2019
Financial assets			
Derivatives	Level 1	81.92	75.28
Investments			
Mutual funds	Level 1	1884.22	352.69
Mutual funds	Level 3	1	-
Alternate investment funds	Level 1	131.88	105.13
Equity instruments	Level 2	0.19	0.14
Preference securities	Level 3	2.98	-

Note: Fair value is estimated based on the market inputs for the classification as per Level 2 and Level 3

Table 9: Quantum of Level 3 Assets – in different types of NBFC

(₹ Crore)

Name of the NBFC	Type of NBFC	Quantum of Level 3 assets	Total Assets	Percentage of Level 3 assets to total assets
1) NBFC 1	CIC	28,914	31,012	93%
2) NBFC 2	IC	262	39,447	0.66%
3) NBFC 3	LC	0.95	1827	0.05%
4) NBFC 4	AFC	28,264	28,825	98%
5) NBFC 5	IC	526	7,963	7%
6) NBFC 6	LC	3,234	3,289	98%
7) NBFC 7	LC	6,443	7,101	91%
8) NBFC 8	IC	13,836	22,260	62%
9) NBFC 9	LC	3	54826	#
10) NBFC 10	LC	262	15135	1.73%

Almost zero per cent, hence negligible

- iii. A few NBFCs did not present the fair value hierarchy for assets/liabilities whose carrying amounts were deemed to be their fair values. A correct representation of assets/liabilities and their fair values hierarchies may be difficult unless disclosures are made uniform. In the absence of such uniformity, it would not be worthwhile to compare the extent of Level 3 assets/liabilities present in various financial statements.

5. Conclusions

The salient findings emerging from the scrutiny of the annual reports of select NBFCs are summarised as follows:

- a. **Disclosing valuation methods:** Confidence in Level 3 valuation can be buttressed through better disclosures. Till such disclosures are put in place, auditors and supervisors will have to evaluate the assumptions under various valuation methods, such as DCF more keenly. There is also a need to try models other than DCF. In fact, the Ind AS 113 does not mandatorily recommend a specific technique or model.

- b. Analysis of unobservable inputs:** Going forward, a list of unobservable inputs that are used for valuing assets or liabilities may be recommended. This will help in standardisation of inputs and reduce subjectivity. This may also pave the way for suitable regulatory or audit guidance on the subject.
- c. Overlap between Level 2 and 3 hierarchies:** It was apparent that the demarcation between Level 2 and 3 hierarchies was very thin. Significant unobservable inputs while valuing assets would invariably lead to Level 3 hierarchy.
- d. Deeper probe into Level 3 items:** It would also be worth examining whether companies placing certain assets under Level 3 hierarchy do so wilfully to escape "marking to market". This seems probable as assets like investment property when subjected to Level 3 evaluation post significantly large values as compared to their carrying amounts.
- e. Presentation and disclosures:** There is a compelling need for consistency in presentation and disclosures with regard to Level 3 assets/liabilities. The following inferences can be specifically drawn in this regard:
- i. Additional disclosure on Level 3 assets should be provided in respect of those assets/liabilities which are normally not subjected to fair value measurement. This will enable arriving at a notional value of illiquidity present in financial statements.
 - ii. Presentation of most matters that are financial, involve three things – (i) the recognition of the financial element, (ii) its measurement and (iii) disclosure. While all three could be deemed to be equally significant, analysis of the sampled NBFCs reveals that "disclosure" may be more important.
- f. Auditor's role:** The role of auditors can be leveraged better if they independently comment on whether the valuation of Level 3 assets, the FV hierarchy of various assets, as reported by the companies are fair and appropriate. In fact, considering what International Audit Standards pronounce under ISA 200, all discerning auditors would, on their own, want to dilute the "audit risk" by collecting as much audit evidence on Level 3 assets as possible.

**Annexure 1:
Discounted Cash Flow (DCF) for Determining Fair Value**

- a. Many companies use the DCF method for determining fair value of unquoted instruments. Certain companies adopt this method to compute fair values of asset items like loans and liability items such as debt securities and other borrowings.
- b. Fair values of assets, for example are estimated by discounting expected future cash flows using an appropriate discount rate.
- c. The arithmetical equation that best summarises the ascertainment of Present value of discounted cash flows is, $PV = \frac{FV}{(1+r)^n}$; where PV is the discounted present value of the future cash flow FV , FV is the nominal value of a cash flow amount in a future period; r is the interest rate or discount rate, n is the time in years before the future cash flow occurs.
- d. The effectiveness of DCF for identifying fair value of an asset has been best summarised by Penman in 2009 – "When it comes to unobservable inputs, one of the options that companies have when it comes to reporting fair value in accordance with the Level 3 fair value accounting is discounted free cash flows (DCF). The problem that has been discussed surrounding fair value accounting is that the calculations in Level 3 are based on estimates. However, disclosures are in place with the new IFRS 13 to reduce the risk for investors and other users of financial statements when they are making their investors". Incidentally, Ind-AS 113 is almost identical to IFRS 13 and refers to DCF as the 'Present Value' method.

Annexure 2:
Classification of Financial assets (liabilities) under Ind AS

- a. If the financial asset is held for collecting contractual cash flows only, say, receivables, loan, such financial assets are recognised at "amortised cost", provided that such cash flows are in the form of principal and/or interest. Financial assets that are normally measured at "amortised cost" are fixed income instruments held till maturity; these are not for sale.
- b. If financial assets meeting the cash flow test of amortised cost are held for collecting contractual flows of cash as above and for selling the asset ultimately, such assets are recognised at "Fair Value through Other Comprehensive Income (FVOCI)".
- c. Financial Assets that do not fall under either of the above categories, are classified as Fair Value through Profit and Loss (FVTPL).
- d. Even if an instrument meets the requirements to be measured at amortised cost or FVOCI, Ind AS 109 gives the option to designate at initial recognition, the financial asset as FVTPL, if doing so eliminates or significantly reduces, a measurement or recognition inconsistency ('accounting mismatch').
- e. An entity has an irrevocable option to classify at initial recognition, an equity instrument as FVOCI.
- f. Financial liabilities held for trading are classified as FVTPL and all other financial liabilities are measured at amortised cost unless the fair value option is applied.

*Herding Behaviour: Does it Exist in the Indian Stock Market?**

This article examines the herding behaviour in the Indian stock market for the period January 2019 to March 2020. For testing the herding activity, we use three independent datasets viz., small-cap, mid-cap, and large-cap stocks. Our findings suggest that herding behaviour exists in mid-cap stocks. Further, it is confirmed that herding activity is more prominent during the periods of negative market returns and days with net negative foreign institutional inflows.

Introduction

Herding is a process where investors in the market are trading in the same direction, mimicking the decisions and actions of previous investors, without paying any attention to their own beliefs or information (Bikhchandani and Sharma, 2000). The empirical literature on the topic highlights that herding behaviour by market participants can distort the value of the underlying stocks and increase volatility (Furman and Stiglitz, 1998; Morris and Shin, 1999). Testing of herding behaviour in financial markets is, therefore, increasingly researched in the recent period by employing different scenarios and assumptions in the context of developed and developing countries. However, except for a few studies, most of the studies are based on models developed by Christie and Huang (1995) and Chang *et al.* (2000). These models primarily identify herding behaviour based on return dispersions, particularly cross-sectional absolute deviations of returns.

The presence of herding activity questions the validity of the Efficient Market Hypothesis (EMH), which primarily assumes that all investors are

rational and have the same information, and similarly predict the expected stock price. Resultantly, the stock price should reflect the information available in the market and the securities' actual value. However, in the presence of herding behaviour, investors are not essentially rational, and they may not derive the stock price by applying their knowledge and beliefs, but by observing and adopting the actions of other investors, even though not all market participants are fully informed. Because of this, herding activity disrupts market movements by shifting the value of securities away from their fundamental value (Demirer and Kutan, 2006).

The objectives of this article are three-fold. First, our primary focus in this article is to ascertain the presence of herding behaviour in Indian stock market by adopting the most widely used methodology posited by Chang *et al.* (2000). The herding activity is tested across these three categories – large-cap, mid-cap and small-cap stocks.¹ Testing herding behaviour across these three stated categories will be useful in identifying information asymmetries if any, in the Indian stock market, which is considered as the oldest, fast-growing and one of the most vibrant markets in Asia². Examining the herd behaviour in Indian stock market therefore, immensely help regulators and policymakers to understand market efficiency and growth.

¹ As per SEBI:

- The top 100 companies listed in the stock market based on market capitalization are classified as large-cap companies.
- The companies ranked from 101 to 250 in terms of market capitalization are known as mid-cap companies.
- The companies ranked from the 251st position onwards in terms of market capitalization are known as small-cap companies.

² According to Goldman Sachs report 2021, the market capitalisation of Indian stock markets is likely to surpass the UK and Middle East and the country will become 5th largest in the world by 2024 (<https://www.firstpost.com/business/goldman-sachs-says-india-could-surpass-uk-as-worlds-fifth-largest-stock-market-by-2024-9984671.html>).

* This article has been prepared by Aniket Ranjan, Suman Sourav and M. Sreeramulu. Valuable inputs received from Shahbaaz Khan is gratefully acknowledged. The views expressed in the article are those of the authors and do not represent the views of the Reserve Bank of India.

Second, we test the herd behaviour during periods of positive and negative market returns, and third, we examine whether herd behaviour exists during days when there are net outflows and net inflows of foreign equity investments³. The rest of the article is organized as follows: Section II presents a brief review of literature on herding behaviour. Section III describes the data and empirical methodology used in the study. Section IV discusses the results, and the last section reports concluding observations.

II. Brief Survey of Literature

Previous research on herding in financial markets found mixed results. Different studies infer that herding activity is more common in emerging market economies than developed ones. Some studies indicate that information asymmetries in the market generally force investors to mimic the actions of their peers while taking investment decisions. Herding behaviour in markets is examined across five major economies *viz.*, US, Japan, Hong Kong, Taiwan, and South Korea by Chang *et al.*, (2000). The authors found strong evidence of herding in South Korea and Taiwan, while weak evidence in the case of Japan and no evidence in the US and Hong Kong markets.

By employing different methods, herd behaviour is observed in the US and South Korean markets during the up and down market (Hwang *et al.*, 2004). Similarly, investors try to exhibit herd behaviour in Chinese dual-listed stocks (Tan *et al.*, 2008). On the contrary, no evidence of herd behaviour is found in China (Demirer *et al.*, 2006). A comprehensive study

on herd behaviour is conducted by using a sample of 18 advanced and emerging market economies by Chiang and Zheng (2010). The authors report no evidence of herding in US and Latin American markets; however, they found that investors in Asian markets exhibited a certain degree of herd behaviour during up and down markets. Similarly, evidence in support of herd behaviour is found in four developed European markets namely France, Germany, Italy, and the UK (Philippas *et al.*, 2011). Herding behaviour is found in Italian stock market during extreme market conditions by Caparrelli *et al.*, (2004).

Some studies found that foreign investors engage in herding more often than local investors (Bowe and Domuta, 2004). The herding spill-over effects is also investigated at global level by Chiang *et al.*, (2010). The authors found the presence of contagion effects between markets during the crisis period. Similarly, intensified herding spill over effects found across markets during periods of high volatility (Klein, 2013). The author used Markov switching model for examining the correlation among different markets.

In the Indian context, studies find mixed results, some authors found no evidence in support of herd behaviour, while some authors found herd behaviour in Indian stock markets (Jindal (2014), Poshakwale *et al.*, 2014). The impact of institutional herding on asset prices is examined by (Dasgupta *et al.*, 2010). The authors found that institutional herding negatively predicts long-term returns but positively predicts short-term returns. Examining the information-based herding behaviour between unprofessional and professional investors, Venezia *et al.*, (2011) find that the propensity to herd is lower in the case of professional investors. The authors also infer that the behaviour is persistent, and it is positively associated with return volatility.

³ While examining whether Foreign Institutional Investors exhibit herding and positive feedback trading while investing in the Indian stock markets Tayde *et al.*, (2011) find that that Foreign Institutional Investors exhibit herding and positive feedback trading during different phases of the stock market. This observed behaviour is prominent in but not restricted to large cap stocks as they enjoy better liquidity.

III. Data and Methodology

For empirical estimations, we used data from three different sources *viz.*, National Stock exchange (NSE), Centre Monitoring Indian Economy (CMIE), and CEIC. The market return is calculated from Nifty50 index collected from the NSE website. The information on small-cap, mid-cap, and large-cap stocks is extracted from the CMIE Prowess database. In all, we could include 91 small-cap, 95 mid-cap, and 83 large-cap stocks in the analysis. The data on net foreign equity investments⁴ (FEI) is extracted from CEIC database. The sample period chosen for this analysis is January 2019 to March 2020⁵.

To test whether herding activity is driven by the fluctuations in the market, we split sample period into four distinct sub-periods *i.e.*, (i) trading days with positive market returns (market-up) (ii) trading days with negative market returns (market-down), (iii) trading days with net positive foreign equity investments and (iv) trading days with net negative foreign equity investments.

Detecting herding towards the market

Herding may lead market participants to conform to the market consensus. In such a case, if the behaviour of market participants is endorsed on market returns, dispersions will decrease on account of their tendency to cluster around the average market return. To detect herding activity on the Indian stock market, we adopt the methodology suggested by Chang *et al.*, (2000) and subsequently modified by Galariotis *et al.*, (2015) and Lin *et al.*, (2015). According to Chang *et al.*, (2000), low dispersion of returns around their cross-sectional

average indicates that market investors try to mimic trading trends around the market average and discard their prior beliefs and information. The dispersion of returns is computed by the Cross-Sectional Absolute Deviation of returns (CSAD) as follows:

$$CSAD_t = \frac{\sum_{i=1}^N |R_{i,t} - R_{m,t}|}{N} \quad \dots(1)$$

Where, $R_{i,t}$ is the return on stock i at time t and $R_{m,t}$ is the cross-sectional average of the N returns in the aggregate market portfolio at time t . Chang *et al.*, (2000) envisage that standard asset-pricing models predict the link between the CSAD and the absolute market returns as positive and linear. On the other hand, herding behaviour around the market consensus alters the linear relationship into a non-linear one. The non-linear relationship between CSAD and market return is expressed as follows:

$$CSAD_t = \alpha + \beta_1 |R_{m,t}| + \beta_2 R_{m,t}^2 + \varepsilon_t \quad \dots(2)$$

Where α is the intercept, β_1 and β_2 are regression coefficients, and ε_t is the error term. In equation (2), the non-linear relationship is captured by the squared market return ($R_{m,t}^2$). If there is no herding activity, equation (2) assumes β_1 to be positive and β_2 either equal to zero or β_2 is greater than zero. Negative and statistically significant β_2 values indicate herding behaviour.

IV. Results and Discussion

The descriptive statistics of small-cap, mid-cap, and large-cap stocks are reported in Table 1. It is observed that the median value of daily returns is the highest for large-cap stocks followed by mid-cap and small-cap stocks during the period of study. This suggests that large-cap stocks on average performed better than the other two groups. However, we also find higher volatility in large-cap stocks, closest to the volatility of the Nifty50 index. The skewness of returns of small-cap is positive while it is negative for other groups. Both mid-cap and large-cap return distributions are leptokurtic (kurtosis is more than

⁴ Net equity investments by foreign institutional investors and foreign portfolio investors.

⁵ We have selected data from January 2019 to March 2020, since this period covers several important events such as budget announcements, general elections, rate-cut in corporate tax, arrival of Covid19 *etc.*, which may have considerable impact on movements in stock market.

Table 1: Descriptive statistics

Return	Median	Standard deviation	Skewness	Kurtosis	Min	Max
Market (Nifty50)	0.02%	1.55%	-2.36	21.62	-12.98%	6.62%
Small cap Stocks	-0.13%	1.25%	0.38	1.02	-3.36%	4.16%
Mid cap Stocks	-0.004%	1.47%	-2.72	21.48	-12.67%	5.64%
Large cap Stocks	0.003%	1.55%	-1.98	15.45	-11.92%	5.61%
Market-up	0.50%	0.99%	3.51	14.88	0.01%	6.62%
Market-down	-0.55%	1.53%	-4.95	30.48	-12.98%	0.00%
Positive FEI	0.03%	0.87%	-0.69	4.43	-4.38%	2.89%
Negative FEI	-0.01%	1.93%	-2.53	15.99	-12.98%	5.83%

3), while the return distribution of small-cap stocks is platykurtic (less than 3). Median return is positive during the episodes of the upmarket and net positive FEIs. The volatility greatly differs across periods with the market-down and net negative FEIs causing a higher degree of volatility indicating that negative news impacts the market to a greater degree.

Further, the descriptive statistics in respect of the CSAD measure are reported in Table 2. The statistics reveal that the average CSAD is higher for large-cap stocks as compared to small-cap and mid-cap stocks. The dispersion trend fits well with the hypothesis of information asymmetry, as large cap stocks tend to have greater coverage and availability of data, therefore greater dispersion from the mean. Similarly, the standard deviation of CSAD for the large-cap stock is higher than the other two groups.

Table 2: Descriptive statistics on CSAD

Item	Small-cap stocks	Mid-cap stocks	Large-cap stocks
Mean (per cent)	1.45	1.50	2.00
Median (per cent)	1.29	1.38	1.85
Std. Dev (per cent)	0.63	0.52	0.67
Skewness	2.97	2.74	1.28
Kurtosis	10.52	9.79	1.35
Minimum (per cent)	0.68	0.80	1.10
Maximum (per cent)	4.69	4.23	4.29

Dispersion of Returns

Table 3 reports the results of a regression equation (2) regarding herding behaviour in the market. Our results indicate that investors on the Indian stock market exhibit herding behaviour only in respect of mid-cap stocks, while in the case of small and large-cap stocks we do not find any evidence in favour of herding activity.

Market movements and herding

To investigate whether stock market returns induce investors to herd, an attempt is made to distinguish between 'market-up' days and 'market-down' days and test the herding activity between these two groups. This classification helps to observe another tenet *i.e.*, whether negative returns are more likely to induce herding than positive returns. The results indicate the presence of herding behaviour in case of mid-cap stocks only on days when the market

Table 3: Regression Results for full Sample

(1)	Small-Cap		Mid-Cap		Large Cap	
	(2)	(3)	(4)	(5)	(6)	(7)
	β_1	β_2	β_1	β_2	β_1	β_2
Full sample	0.037	8.54***	0.43***	-1.40***	0.49***	1.71***
<i>p</i> - value	0.7786	0.0211	0.0000	0.0001	0.0000	0.00028
<i>R</i> ²	0.01		0.57		0.53	

Table 4: Market movements and herding

(1)	Small-Cap		Mid-Cap		Large Cap	
	(2)	(3)	(4)	(5)	(6)	(7)
	β_1	β_2	β_1	β_2	β_1	β_2
Market-up	0.34**	2.09	0.28***	4.33***	0.30***	3.94***
<i>p</i> – value	0.0583	0.6382	0.0007	0.0117	0.0005	0.0142
<i>R</i> ²	0.18		0.58		0.61	
Market-down	-0.36	19.54	0.35***	-0.89***	0.41***	1.27***
<i>p</i> – value	0.2407	0.1915	0.0000	0.0314	0.0000	0.02710
<i>R</i> ²	0.02		0.64		0.52	

Note: Market-up means when Nifty returns (daily) are observed positive and Market-down means when Nifty returns are negative

is down (i.e., negative market returns). Our results are consistent with Christie and Huang (1995) who stress that a ‘herding’ is more likely to form under conditions of market stress. We found no evidence of herding in respect of small and large-cap stocks either for up or down market.

Foreign flows and herding

To examine whether herding behaviour is driven by the fluctuations in foreign flows, we classify trading days into two groups – (i) days when there are net foreign inflows and (ii) days with net foreign outflows. The results confirm the herding behaviour during days when there are net outflows of Foreign Equity Investment (FEI) in respect of mid-cap stocks. We find no such evidence in the case of small and large-cap stocks. The lack of evidence of herding behaviour is in line with earlier studies conducted in different markets using a similar methodology (Gleason *et al.* (2004)).

Table 5: Results of Regression Model

(1)	Small-Cap		Mid-Cap		Large Cap	
	(2)	(3)	(4)	(5)	(6)	(7)
	β_1	β_2	β_1	β_2	β_1	β_2
Positive FEI	-0.0620	19.17	-0.05	16.86***	-0.16	18.58***
<i>p</i> – value	0.8310	0.1384	0.65	0.003	0.12	0.000
<i>R</i> ²	0.09		0.24		0.41	
Negative FEI	-0.045	9.71***	0.48***	-1.87***	0.52***	2.12***
<i>p</i> – value	0.8127	0.0319	0.0000	0.0000	0.0000	0.0003
<i>R</i> ²	0.14		0.66		0.57	

Note: Market-up means when Nifty returns (daily) are observed positive and Market-down means when Nifty returns are negative

V. Conclusion

This article investigated the herding behaviour in the Indian stock market during the period January 2019 to March 2020. The methodology viz., Cross-Sectional Absolute Deviation (CSAD) posited by Chang *et al.*, (2000) is used for testing the herding activity in the market. The results suggest that overall, investors in the Indian Stock Market do not exhibit herding behaviour, except for some evidence of herding activity in respect of mid-cap stocks. Further, the investors’ mimicking behaviour is more noticeable during days with negative market returns and days with net outflows of foreign equity investment. Though herding was not found for the other categories, we did find evidence of non-linear association between CSAD and market returns for large-cap and small-cap stocks implying greater individual decision making.

References

Arne, C. K. ,(2013), "Time-variations in herding behaviour: Evidence from a Markov switching SUR model", *Journal of International Financial Markets, Institutions and Money*, Vol-26, pp-291-304.

Bikhchandani, S., & Sharma, S. (2000), "Herd behaviour in financial markets, *IMF Staff Papers*", Vol-47-3, pp-279–310.

Bikhchandani, S., David,H., Welch,I. (1992), "A Theory of Fads, Fashion, Custom and Cultural Change as Informational Cascades", *Journal of Political Economy*, Vol-100, pp-992–1026.

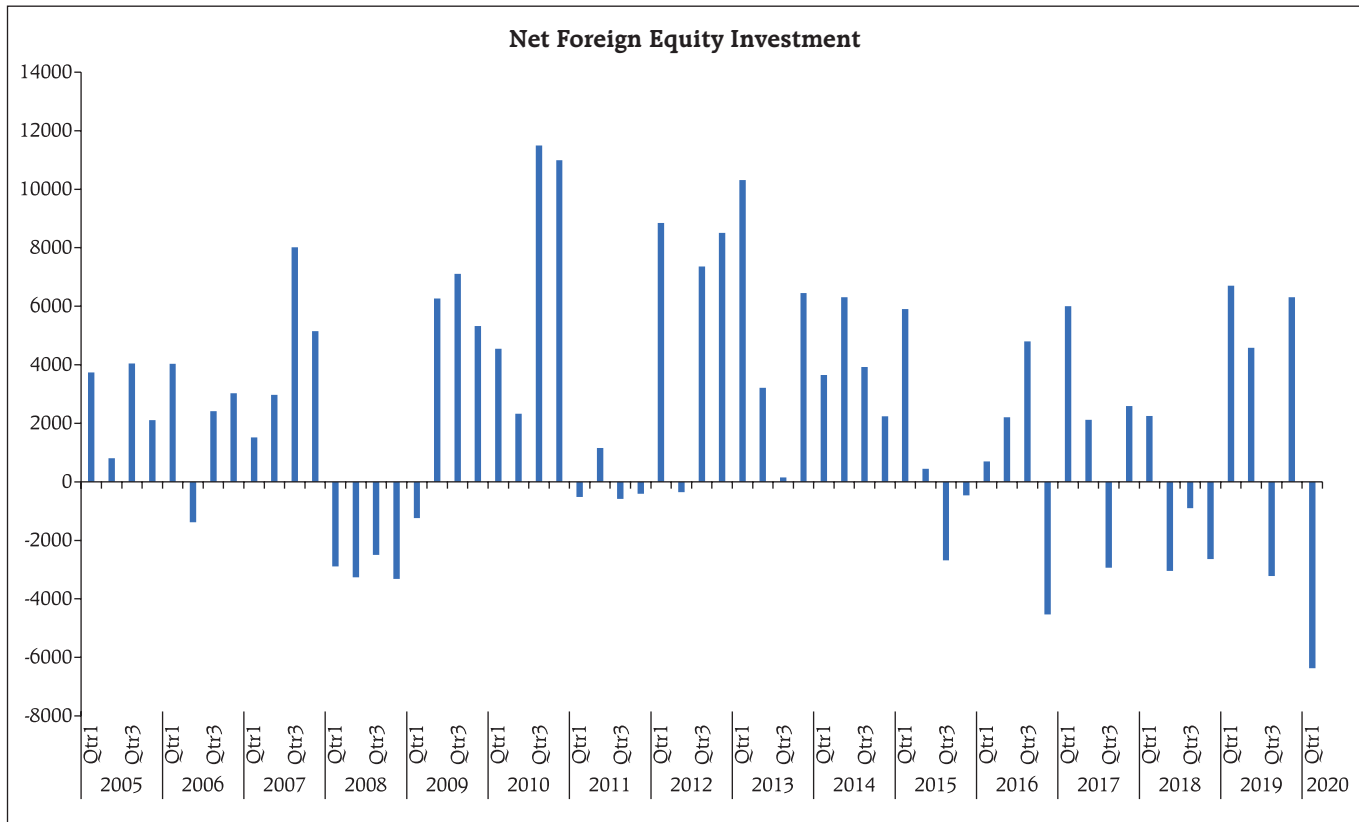
Bowe, M.,Domuta, D., (2004), "Investor herding during financial crisis: A clinical study of the Jakarta Stock Exchange", *Pacific-Basin Finance Journal*, Vol-12, pp-387-418.

Caparrelli, F., Maria, A. ,Cassuto, A., (2004), "Herding in the Italian Stock Market: A Case of Behavioural Finance", *The Journal of Behavioural Finance*, Vol- 5, pp-222-230.

- Chang, E. C., Cheng, J. C., Khorana, A. (2000), "An examination of herd behaviour in equity markets: An international perspective", *Journal of Banking and Finance*, Vol-24, pp-1651–1679.
- Chiang, T. C., Zheng, D. (2010), "An empirical analysis of herding behaviour in global stock markets", *Journal of Banking and Finance*, Vol-34-8, pp-1911–1921.
- Christie, W. G., Huang, R. D., (1995), "Following the pied piper: Do individual returns herd around the market?", *Financial Analysts Journal*, Vol-51, p-31–37.
- Cipriani, M., Guarino, A., (2005), "Herd Behaviour in a Laboratory Financial Market", *American Economic Review*, Vol-95, pp-1427-1443.
- Cipriani, M., Guarino, A., (2005a), "Noise Trading in a Laboratory Financial Market: A Maximum Likelihood Approach", *Journal of the European Economic Association*, Vol-3-2, pp-315-321.
- Dasgupta, A., Prat, A., Verardo, M., (2010), "The Price Impact of Institutional Herding. C.E.P.R. Discussion Papers", *CEPR Discussion Papers*, Vol-24.
- Demirer, R., Kutan, A. M., (2006), "Does herding behaviour exist in Chinese stock market?", *Journal of International Financial Markets, Institutions and Money*, Vol-16, pp-123-142.
- Drehmann, M., Oechssler, J., Roeder, A., (2005), "Herding and Contrarian Behaviour in Financial Markets: An Internet Experiment", *The American Economic Review*, Vol-95-5, pp-1403-1426.
- Economou, F., Philippas, N., Kostakis, A., (2011), "Cross-country effects in herding behaviour: Evidence from four south European markets", *Journal of International Financial Markets, Institutions and Money*, Vol-21, pp-443-460.
- Froot, K.A., Scharfstein, D.S., Stein, J.C., (1992), "Herd on the street: information inefficiencies in a market with short-term speculation", *The Journal of Finance*, Vol-47, pp-1461–1484.
- Furman, J., Stiglitz, J.E., (1998), "Economic crises: evidence and insights from East Asia", *Brookings Papers on Economic Activity*, Vol-2, pp-1–136.
- Garg, A., Jindal, K., (2014), "Herding Behaviour in an Emerging Stock Market: Empirical Evidence from India," *The IUP Journal of Applied Finance*, Vol.-20-2, pp- 18-36.
- Gavriilidis, K., Kallinterakis, B., Ferreira, M., (2013), "Institutional Industry Herding: Intentional or Spurious", *Journal of International Financial Markets, Institutions and Money*, Vol-26
- Galariotis, E., Rong, W., Spyrou, S., (2015), "Herding on fundamental information: A comparative study", *Journal of Banking & Finance*, Vol-50, pp-589-598.
- Gleason, K.C., Mathur, I., Peterson, M.A., (2004). Analysis of intraday herding behaviour among the sector ETFs, *Journal of Empirical Finance*, Vol-11, pp-681-694.
- Hsieh, S., (2013), "Individual and institutional herding and the impact on stock returns: Evidence from Taiwan stock market", *International Review of Financial Analysis*, Vol-29, pp- 175-188.
- Huang, T., Lin, B., Yang, T., (2015), "Herd behaviour and idiosyncratic volatility", *Journal of Business Research*, Vol-68.
- Lakonishok, J., Schleifer, A., Vishny, R.W., (1992), "The impact of institutional trading on stock prices", *Journal of Financial Economics*, Vol-32, pp-23-43.
- Morris, S., Shin, H.S., (1999), "Risk management with interdependent choice", *Oxford Review of Economic Policy*, Vol-15, pp-52–62.
- Nofsinger, J. R., Sias, R. W., (1999), "Herding and feedback trading by institutional and individual investors", *The Journal of Finance*, Vol-54, pp-2263-2295.
- Park, A., Sabouralni, H., (2011), "Herding and contrarian behaviour in financial markets", *Econometrica*, Vol-79, pp-973–1026.

- Pierdzioch, C., Rülke, J., Stadtmann, G., (2012), "A Note on Forecasting Emerging Market Exchange Rates: Evidence of Anti-Herding", *Review of International Economics*, Vol-20.
- Poshakwale, S., Mandal, A., (2014), "Investor Behaviour and Herding: Evidence from the National Stock Exchange in India", *Journal of Emerging Market Finance*, Vol-13-2, pp-197-216.
- Tan, L., Chiang, T. C., Mason, J. R., Nelling, E., (2008), "Herding behaviour in Chinese stock market: An examination of A and B shares", *Pacific Basin Financial Journal*, Vol-16, pp-61-77.
- Tayde, Mangesh & Rao, S.V.D.. (2011), "Do Foreign Institutional Investors (FIIs) Exhibit Herding and Positive Feedback Trading in Indian Stock Markets?", *International Finance Review*, Vol-12, pp-169-185
- Venezia, I., Nashikkar, A., Shapira, Z., (2011), "Firm Specific and Macro Herding by Professional and Amateur Investors and Their Effects on Market Volatility", *Journal of Banking & Finance*, Vol-35, pp-1599-1609.
- Zhou, T., Lai, R., (2009), "Herding and information based trading", *Journal of Empirical Finance*, Vol-16-3, pp-388-393.

Annex-I:



CURRENT STATISTICS

Select Economic Indicators

Reserve Bank of India

Money and Banking

Prices and Production

Government Accounts and Treasury Bills

Financial Markets

External Sector

Payment and Settlement Systems

Occasional Series

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Notes: .. = Not available.
 – = Nil/Negligible.
 P = Preliminary/Provisional. PR = Partially Revised.

No. 1: Select Economic Indicators

Item	2020-21	2020-21		2021-22	
		Q2	Q3	Q2	Q3
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	-4.8	-5.9	2.1	8.4	4.7
1.1.1 Agriculture	3.3	3.2	4.1	3.7	2.6
1.1.2 Industry	-1.8	3.0	6.2	6.6	1.4
1.1.3 Services	-7.8	-10.4	0.04	10.0	6.7
1.1a Final Consumption Expenditure	-4.5	-10.8	0.4	10.1	6.5
1.1b Gross Fixed Capital Formation	-10.4	-4.5	-0.6	14.6	2.0
	2020-21	2020	2021	2022	
		Dec.	Jan.	Dec.	Jan.
	1	2	3	4	5
1.2 Index of Industrial Production	-8.4	2.2	-0.6	0.7	1.3
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	11.4	10.8	11.1	10.3	8.3
2.1.2 Credit	5.6	6.2	5.9	8.2	7.1
2.1.2.1 Non-food Credit	5.5	6.2	5.9	8.3	7.3
2.1.3 Investment in Govt. Securities	19.3	17.3	18.8	2.8	3.3
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	18.8	14.9	14.5	14.7	13.5
2.2.2 Broad Money (M3)	12.2	12.4	12.1	11.4	8.4
3 Ratios (%)					
3.1 Cash Reserve Ratio	3.50	3.00	3.00	4.00	4.00
3.2 Statutory Liquidity Ratio	18.00	18.00	18.00	18.00	18.00
3.3 Cash-Deposit Ratio	4.2	3.7	3.8	5.0	4.8
3.4 Credit-Deposit Ratio	72.4	73.1	72.3	71.3	71.5
3.5 Incremental Credit-Deposit Ratio	37.4	23.5	26.9	56.1	56.5
3.6 Investment-Deposit Ratio	29.5	30.4	29.9	28.4	28.6
3.7 Incremental Investment-Deposit Ratio	46.8	72.0	56.2	12.9	12.8
4 Interest Rates (%)					
4.1 Policy Repo Rate	4.00	4.00	4.00	4.00	4.00
4.2 Reverse Repo Rate	3.35	3.35	3.35	3.35	3.35
4.3 Marginal Standing Facility (MSF) Rate	4.25	4.25	4.25	4.25	4.25
4.4 Bank Rate	4.25	4.25	4.25	4.25	4.25
4.5 Base Rate	7.40/8.80	7.30/8.80	7.30/8.80	7.25/8.80	7.25/8.80
4.6 MCLR (Overnight)	6.55/7.05	6.55/7.10	6.55/7.05	6.50/7.00	6.45/7.00
4.7 Term Deposit Rate >1 Year	4.90/5.50	4.90/5.50	4.90/5.50	4.90/5.60	5.00/5.60
4.8 Savings Deposit Rate	2.70/3.00	2.70/3.00	2.70/3.00	2.70/3.00	2.70/3.00
4.9 Call Money Rate (Weighted Average)	3.25	3.24	3.23	3.32	3.72
4.10 91-Day Treasury Bill (Primary) Yield	3.32	3.08	3.35	3.66	3.71
4.11 182-Day Treasury Bill (Primary) Yield	3.47	3.34	3.56	3.97	4.18
4.12 364-Day Treasury Bill (Primary) Yield	3.83	3.46	3.68	4.27	4.51
4.13 10-Year G-Sec Par Yield (FBIL)	6.34	5.89	5.96	6.47	6.69
5 Reference Rate and Forward Premia					
5.1 INR-US\$ Spot Rate (Rs. Per Foreign Currency)	72.40	73.58	72.95	74.30	74.95
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	85.31	89.81	88.30	84.05	83.60
5.3 Forward Premia of US\$ 1-month (%)	6.80	3.84	4.19	3.96	3.84
3-month (%)	5.64	3.75	5.48	4.15	4.88
6-month (%)	5.47	4.35	5.13	4.71	4.66
6 Inflation (%)					
6.1 All India Consumer Price Index	6.18	4.6	4.1	5.7	6.0
6.2 Consumer Price Index for Industrial Workers	5.03	3.7	3.2	5.6	5.8
6.3 Wholesale Price Index	1.29	2.0	2.5	14.3	13.0
6.3.1 Primary Articles	1.71	-0.6	-1.6	13.8	13.9
6.3.2 Fuel and Power	-7.99	-6.1	-3.8	38.1	32.3
6.3.3 Manufactured Products	2.75	4.5	5.5	10.7	9.4
7 Foreign Trade (% Change)					
7.1 Imports	-16.91	8.4	2.1	39.3	23.5
7.2 Exports	-6.88	0.4	6.5	44.2	25.3

Note : Financial Benchmark India Pvt. Ltd. (FBIL) has commenced publication of the G-Sec benchmarks with effect from March 31, 2018 as per RBI circular FMRD.DIRD.7/14.03.025/2017-18 dated March 31, 2018. FBIL has started dissemination of reference rates w.e.f. July 10, 2018.

Reserve Bank of India

No. 2: RBI - Liabilities and Assets *

(₹ Crore)

Item	As on the Last Friday/ Friday						
	2020-21	2021	2022				
			Feb.	Jan. 28	Feb. 4	Feb. 11	
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	2831727	2809858	3004604	3025718	3046152	3049374	3052620
1.1.2 Notes held in Banking Department	11	21	16	15	12	17	14
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	2831738	2809879	3004619	3025733	3046165	3049391	3052634
1.2 Assets							
1.2.1 Gold	106555	110589	114864	113400	117356	119865	123775
1.2.2 Foreign Securities	2724437	2698474	2889257	2911857	2928356	2929094	2928450
1.2.3 Rupee Coin	746	816	498	476	453	432	409
1.2.4 Government of India Rupee Securities	–	–	–	–	–	–	–
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	1504697	1532207	1929291	1909969	1898744	1913737	1911791
2.1.1.1 Central Government	100	101	100	101	100	101	100
2.1.1.2 Market Stabilisation Scheme	–	–	–	–	–	–	–
2.1.1.3 State Governments	42	42	42	42	42	42	43
2.1.1.4 Scheduled Commercial Banks	542693	462156	681336	689302	645967	702886	664473
2.1.1.5 Scheduled State Co-operative Banks	6529	5257	7560	7356	7044	7637	6900
2.1.1.6 Non-Scheduled State Co-operative Banks	3204	2430	3766	3836	3977	3872	3916
2.1.1.7 Other Banks	31820	27383	36681	36944	37379	37425	36947
2.1.1.8 Others	895440	1018787	1139410	1121522	1146815	1082200	1119484
2.1.1.9 Financial Institution Outside India	24868	16050	60395	50866	57419	79572	79928
2.1.2 Other Liabilities	1343670	1415428	1300073	1288249	1333336	1308371	1333412
2.1/2.2 Total Liabilities or Assets	2848367	2947634	3229365	3198218	3232080	3222108	3245202
2.2 Assets							
2.2.1 Notes and Coins	11	21	16	15	12	17	14
2.2.2 Balances held Abroad	1204135	1314777	1387051	1359892	1363932	1331592	1350827
2.2.3 Loans and Advances							
2.2.3.1 Central Government	–	–	–	–	–	–	–
2.2.3.2 State Governments	1674	3938	716	8418	8872	4065	186
2.2.3.3 Scheduled Commercial Banks	90275	84651	94286	94793	95159	95015	96123
2.2.3.4 Scheduled State Co-op. Banks	–	35	–	–	–	–	–
2.2.3.5 Industrial Dev. Bank of India	–	–	–	–	–	–	–
2.2.3.6 NABARD	26422	26848	24770	24853	24853	24853	24853
2.2.3.7 EXIM Bank	–	–	–	–	–	–	–
2.2.3.8 Others	6678	6662	811	77	77	77	77
2.2.3.9 Financial Institution Outside India	24858	29509	30404	30415	37209	60080	64052
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	–	–	–	–	–	–	–
2.2.4.2 Government Treasury Bills	–	–	–	–	–	–	–
2.2.5 Investments	1331671	1322118	1497144	1486669	1503217	1503593	1499600
2.2.6 Other Assets	162643	159077	194167	193086	198750	202816	209471
2.2.6.1 Gold	146572	149649	181597	180005	186071	190049	196025

* Data are provisional

No. 3: Liquidity Operations by RBI

(₹ Crore)

Date	Liquidity Adjustment Facility				MSF	Standing Liquidity Facilities	Market Stabilisation Scheme	OMO (Outright)		Long Term Repo Operations &	Targeted Long Term Repo Operations #	Special Long-Term Repo Operations for Small Finance Banks	Special Reverse Repo ₹	Net Injection (+)/ Absorption (-) (1+3+5+6+9+10+11+12-2-4-7-8-13)
	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo				Sale	Purchase					
	1	2	3	4				5	6					
Jan. 1, 2022	-	67494	-	-	1005	-	-	-	-	-	-	-	-	-66489
Jan. 2, 2022	-	5285	-	-	69	-	-	-	-	-	-	-	-	-5216
Jan. 3, 2022	-	262625	-	200014	1575	-	-	2225	-	-	-	-	-	-463289
Jan. 4, 2022	-	186727	-	200021	30	-	-	1685	-	-	-	-	-	-388403
Jan. 5, 2022	-	173550	-	-	22	-	-	260	-	-	-	-	-	-173788
Jan. 6, 2022	-	138377	-	198755	170	-	-	1445	-	-	-	-	-	-338407
Jan. 7, 2022	-	93317	-	-	10	-	-	20	160	-	-	-	-	-93167
Jan. 8, 2022	-	3724	-	-	207	-	-	-	-	-	-	-	-	-3517
Jan. 9, 2022	-	2611	-	-	45	-	-	-	-	-	-	-	-	-2566
Jan. 10, 2022	-	75259	-	183592	345	-	-	-	70	-	-	-	-	-258436
Jan. 11, 2022	-	109173	-	175042	15	-	-	520	-	-	-	-	-	-284720
Jan. 12, 2022	-	108934	-	-	230	-	-	520	-	-	-	-	-	-109224
Jan. 13, 2022	-	287209	-	-	12	-	-	325	-	-	-	-	-	-287522
Jan. 14, 2022	-	78411	-	431426	484	3000	-	865	-	-	-	-	-	-507218
Jan. 15, 2022	-	26114	-	-	44	-	-	-	-	-	-	-	-	-26070
Jan. 16, 2022	-	2653	-	-	8	-	-	-	-	-	-	-	-	-2645
Jan. 17, 2022	-	76070	-	-	4	-3000	-	75	260	-	-	-	-	-78881
Jan. 18, 2022	-	64376	-	200029	192	-	-	335	-	-	-	-	-	-264548
Jan. 19, 2022	-	40925	-	-	4350	-	-	105	-	-	-	-	-	-36680
Jan. 20, 2022	-	46079	50003	-	1654	-	-	-	-	-	-	-	-	5578
Jan. 21, 2022	-	43201	75005	-	590	1383	-	-	-	-	-	-	-	33777
Jan. 22, 2022	-	3317	-	-	86	-	-	-	-	-	-	-	-	-3231
Jan. 23, 2022	-	2416	-	-	21	-	-	-	-	-	-	-	-	-2395
Jan. 24, 2022	-	56394	75009	-	525	50	-	-	-	-	-	-	-	19190
Jan. 25, 2022	-	76606	-	120255	360	-	-	-	-	-	-	-	-	-196501
Jan. 26, 2022	-	5725	-	-	61	-	-	-	-	-	-	-	-	-5664
Jan. 27, 2022	-	79468	-	-	32	-	-	-	-	-	-	-	-	-79436
Jan. 28, 2022	-	270488	-	327902	38	-699	-	-	-	-	-	-	-	-599051
Jan. 29, 2022	-	37021	-	-	244	-	-	-	-	-	-	-	-	-36777
Jan. 30, 2022	-	5173	-	-	21	-	-	-	-	-	-	-	-	-5152
Jan. 31, 2022	-	353403	-	-	160	-230	-	-	-	-	-	-	-	-353473

Notes: #Includes Targeted Long Term Repo Operations (TLTRO), Targeted Long Term Repo Operations 2.0 (TLTRO 2.0) and On Tap Targeted Long Term Repo Operations. Negative (-) sign indicates repayments done by Banks.

& Negative (-) sign indicates repayments done by Banks.

₹ As per Press Release No. 2021-2022/177 dated May 07, 2021. From June 18, 2021, the data also includes the amount absorbed as per the Press Release No. 2021-2022/323 dated June 04, 2021.

No. 4 A : Maturity Breakdown (by Residual Maturity) of Outstanding Forwards of RBI (US \$ Million)

Item	As on January 31, 2022		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	5946	5175	771
2. More than 1 month and upto 3 months	14288	10020	4268
3. More than 3 months and upto 1 year	44838	0	44838
4. More than 1 year	0	0	0
Total (1+2+3+4)	65072	15195	49877

No. 5: RBI's Standing Facilities

(₹ Crore)

Item	As on the Last Reporting Friday							
	2020-21	2021					2022	
		Feb. 26	Sep. 24	Oct. 22	Nov. 19	Dec. 31	Jan. 28	Feb. 25
	1	2	3	4	5	6	7	8
1 MSF	182	58	152	461	7201	8176	38	1858
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit	-	-	-	-	-	-	-	-
2.2 Outstanding	-	-	-	-	-	-	-	-
3 Liquidity Facility for PDs								
3.1 Limit	4900	4900	4900	4900	4900	4900	4900	4900
3.2 Outstanding	-	0	0	0	0	0	734	0
4 Others								
4.1 Limit	75000	75000	76000	76000	76000	76000	76000	76000
4.2 Outstanding	32387	32842	25396	21696	24196	24401	24401	24401
5 Total Outstanding (1+2.2+3.2+4.2)	32569	32900	25548	22157	31397	32577	25173	26259

Note :1.Special refinance facility to Others, i.e. to the EXIM Bank, is reopened since May 22, 2020

2.Refinance facility to Others, i.e. to the NABARD/SIDBI/NHB U/S 17(4H) of RBI ACT,1934, since, April 17, 2020.

Money and Banking

No. 6: Money Stock Measures

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2020-21	2021		2022	
		Jan. 29	Dec. 31	Jan. 14	Jan. 28
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	2751828	2707213	2881115	2934712	2930965
1.1 Notes in Circulation	2826851	2780045	2959237	3006151	3004604
1.2 Circulation of Rupee Coin	26170	26004	26921	26921	27021
1.3 Circulation of Small Coins	743	743	743	743	743
1.4 Cash on Hand with Banks	101935	99579	105786	99103	101403
2 Deposit Money of the Public	2042471	1857491	2257098	2016778	2103135
2.1 Demand Deposits with Banks	1995120	1814269	2206052	1967141	2050497
2.2 'Other' Deposits with Reserve Bank	47351	43222	51045	49637	52638
3 M₁ (1 + 2)	4794299	4564704	5138213	4951490	5034100
4 Post Office Saving Bank Deposits	170025	165101	170025	170025	170025
5 M₂ (3 + 4)	4964324	4729805	5308238	5121515	5204125
6 Time Deposits with Banks	14050278	13841962	14975823	14955857	14912628
7 M₃ (3 + 6)	18844578	18406666	20114036	19907347	19946728
8 Total Post Office Deposits	509544	494606	509544	509544	509544
9 M₄ (7 + 8)	19354122	18901272	20623580	20416891	20456272

No. 7: Sources of Money Stock (M₃)

(₹ Crore)

Sources	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2020-21	2021		2022	
		Jan. 29	Dec. 31	Jan. 14	Jan. 28
	1	2	3	4	5
1 Net Bank Credit to Government	5850374	5735482	6100716	6084344	5934151
1.1 RBI's net credit to Government (1.1.1-1.1.2)	1099686	1058048	1194335	1161054	1058706
1.1.1 Claims on Government	1337300	1312493	1526753	1519853	1496295
1.1.1.1 Central Government	1333917	1307724	1520076	1505878	1495578
1.1.1.2 State Governments	3383	4769	6677	13975	716
1.1.2 Government deposits with RBI	237615	254445	332418	358799	437589
1.1.2.1 Central Government	237572	254403	332375	358757	437546
1.1.2.2 State Governments	42	42	42	42	42
1.2 Other Banks' Credit to Government	4750689	4677434	4906381	4923290	4875445
2 Bank Credit to Commercial Sector	11668466	11361490	12389335	12209282	12174904
2.1 RBI's credit to commercial sector	8709	8601	2094	5140	2874
2.2 Other banks' credit to commercial sector	11659757	11352889	12387240	12204142	12172030
2.2.1 Bank credit by commercial banks	10949509	10703752	11680480	11496877	11468977
2.2.2 Bank credit by co-operative banks	694758	639026	688991	689131	685155
2.2.3 Investments by commercial and co-operative banks in other securities	15490	10111	17769	18134	17898
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	4578846	4609126	4924971	4911792	4916853
3.1 RBI's net foreign exchange assets (3.1.1-3.1.2)	4199400	4279192	4550652	4537473	4542534
3.1.1 Gross foreign assets	4199637	4279437	4550897	4537718	4542779
3.1.2 Foreign liabilities	237	245	245	245	245
3.2 Other banks' net foreign exchange assets	379446	329934	374319	374319	374319
4 Government's Currency Liabilities to the Public	26913	26747	27664	27664	27764
5 Banking Sector's Net Non-monetary Liabilities	3280021	3326178	3328650	3325735	3106944
5.1 Net non-monetary liabilities of RBI	1356660	1436430	1307042	1301909	1291916
5.2 Net non-monetary liabilities of other banks (residual)	1923362	1889748	2021608	2023826	1815029
M₃ (1+2+3+4-5)	18844578	18406666	20114036	19907347	19946728

No. 8: Monetary Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2020-21	2021		2022	
		Jan. 29	Dec. 31	Jan. 14	Jan. 28
	1	2	3	4	5
Monetary Aggregates					
NM ₁ (1.1 + 1.2.1+1.3)	4794299	4564704	5138213	4951490	5034100
NM ₂ (NM ₁ + 1.2.2.1)	11048277	10719166	11814892	11619131	11681954
NM ₃ (NM ₂ + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	18936051	18484350	20245248	20044207	20078698
1 Components					
1.1 Currency with the Public	2751828	2707213	2881115	2934712	2930965
1.2 Aggregate Deposits of Residents	15892848	15490852	17043116	16784121	16823507
1.2.1 Demand Deposits	1995121	1814269	2206052	1967141	2050497
1.2.2 Time Deposits of Residents	13897727	13676583	14837063	14816980	14773010
1.2.2.1 Short-term Time Deposits	6253977	6154462	6676679	6667641	6647855
1.2.2.1.1 Certificates of Deposit (CDs)	78702	63159	84894	98722	100092
1.2.2.2 Long-term Time Deposits	7643750	7522121	8160385	8149339	8125156
1.3 'Other' Deposits with RBI	47351	43222	51045	49637	52638
1.4 Call/Term Funding from Financial Institutions	244025	243063	269971	275737	271587
2 Sources					
2.1 Domestic Credit	18518950	18047710	19479623	19292142	19107911
2.1.1 Net Bank Credit to the Government	5850374	5735481	6100716	6084344	5934151
2.1.1.1 Net RBI credit to the Government	1099686	1058048	1194335	1161054	1058706
2.1.1.2 Credit to the Government by the Banking System	4750689	4677434	4906381	4923290	4875445
2.1.2 Bank Credit to the Commercial Sector	12668575	12312228	13378907	13207799	13173759
2.1.2.1 RBI Credit to the Commercial Sector	34134	34782	26864	29910	27644
2.1.2.2 Credit to the Commercial Sector by the Banking System	12634441	12277447	13352043	13177889	13146115
2.1.2.2.1 Other Investments (Non-SLR Securities)	951313	914781	958477	963648	964488
2.2 Government's Currency Liabilities to the Public	26913	26747	27664	27664	27764
2.3 Net Foreign Exchange Assets of the Banking Sector	4438202	4486180	4755068	4746501	4771073
2.3.1 Net Foreign Exchange Assets of the RBI	4199400	4279192	4550652	4537473	4542534
2.3.2 Net Foreign Currency Assets of the Banking System	238802	206988	204416	209028	228539
2.4 Capital Account	2775245	2839875	2976588	2989279	3005732
2.5 Other items (net)	1272767	1236411	1040519	1032823	822319

No. 9: Liquidity Aggregates

(₹ Crore)

Aggregates	2020-21	2021			2022
		Jan.	Nov.	Dec.	Jan.
	1	2	3	4	5
1 NM₃	18936051	18484350	19761139	20245248	20078698
2 Postal Deposits	509544	494606	509544	509544	509544
3 L₁ (1 + 2)	19445595	18978956	20270683	20754792	20588242
4 Liabilities of Financial Institutions	33179	34795	26861	24644	27058
4.1 Term Money Borrowings	2645	2645	3631	1984	2138
4.2 Certificates of Deposit	25550	28865	18175	15360	17560
4.3 Term Deposits	4984	3285	5054	7299	7360
5 L₂ (3 + 4)	19478774	19013751	20297544	20779435	20615300
6 Public Deposits with Non-Banking Financial Companies	31905	31905	..
7 L₃ (5 + 6)	19510679	20811340	..

Note : 1. Figures in the columns might not add up to the total due to rounding off of numbers.

No. 10: Reserve Bank of India Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2020-21	2021		2022	
		Jan. 29	Dec. 31	Jan. 14	Jan. 28
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	2853763	2806792	2986901	3033815	3032368
1.2 Bankers' Deposits with the RBI	698867	511901	764828	731205	729343
1.2.1 Scheduled Commercial Banks	651748	476349	716432	683105	681336
1.3 'Other' Deposits with the RBI	47351	43222	51045	49637	52638
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	3599981	3361915	3802775	3814657	3814348
2 Sources					
2.1 RBI's Domestic Credit	730328	492406	531501	551429	535966
2.1.1 Net RBI credit to the Government	1099686	1058048	1194335	1161054	1058706
2.1.1.1 Net RBI credit to the Central Government (2.1.1.1.1 + 2.1.1.1.2 + 2.1.1.1.3 + 2.1.1.1.4 – 2.1.1.1.5)	1096345	1053321	1187700	1147121	1058032
2.1.1.1.1 Loans and Advances to the Central Government	–	–	–	–	–
2.1.1.1.2 Investments in Treasury Bills	–	–	–	–	–
2.1.1.1.3 Investments in dated Government Securities	1333174	1306845	1519509	1505350	1495081
2.1.1.1.3.1 Central Government Securities	1333174	1306845	1519509	1505350	1495081
2.1.1.1.4 Rupee Coins	743	879	567	528	498
2.1.1.1.5 Deposits of the Central Government	237572	254403	332375	358757	437546
2.1.1.2 Net RBI credit to State Governments	3340	4727	6634	13932	674
2.1.2 RBI's Claims on Banks	-403492	-600423	-689698	-639534	-550384
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	-378066	-574242	-664928	-614764	-525614
2.1.3 RBI's Credit to Commercial Sector	34134	34782	26864	29910	27644
2.1.3.1 Loans and Advances to Primary Dealers	–	–	–	–	734
2.1.3.2 Loans and Advances to NABARD	25426	26181	24770	24770	24770
2.2 Government's Currency Liabilities to the Public	26913	26747	27664	27664	27764
2.3 Net Foreign Exchange Assets of the RBI	4199400	4279192	4550652	4537473	4542534
2.3.1 Gold	247723	264803	292779	294839	296461
2.3.2 Foreign Currency Assets	3951694	4014406	4257890	4242651	4246090
2.4 Capital Account	1173033	1250074	1221533	1230643	1244373
2.5 Other Items (net)	183626	186356	85509	71266	47542

No. 11: Reserve Money - Components and Sources

(₹ Crore)

Item	Outstanding as on March 31/ last Fridays of the month/ Fridays						
	2020-21	2021		2022			
		Jan. 29	Dec. 31	Jan. 7	Jan. 14	Jan. 21	Jan. 28
	1	2	3	4	5	6	7
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 – 2.6)	3599981	3361915	3802775	3760210	3814657	3794592	3814348
1 Components							
1.1 Currency in Circulation	2853763	2806792	2986901	3017562	3033815	3036653	3032368
1.2 Bankers' Deposits with RBI	698867	511901	764828	692390	731205	706377	729343
1.3 'Other' Deposits with RBI	47351	43222	51045	50259	49637	51562	52638
2 Sources							
2.1 Net Reserve Bank Credit to Government	1099686	1058048	1194335	1169468	1161054	1051849	1058706
2.2 Reserve Bank Credit to Banks	-378066	-574242	-664928	-689400	-614764	-529430	-525614
2.3 Reserve Bank Credit to Commercial Sector	8709	8601	2094	2131	5140	3523	2874
2.4 Net Foreign Exchange Assets of RBI	4199400	4279192	4550652	4533654	4537473	4540700	4542534
2.5 Government's Currency Liabilities to the Public	26913	26747	27664	27664	27664	27664	27764
2.6 Net Non- Monetary Liabilities of RBI	1356660	1436430	1307042	1283307	1301909	1299714	1291916

No. 12: Commercial Bank Survey

(₹ Crore)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2020-21	2021		2022	
		Jan. 29	Dec. 31	Jan. 14	Jan. 28
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	14960961	14637387	16103094	15844101	15892908
1.1.1 Demand Deposits	1861193	1691559	2066651	1828349	1912237
1.1.2 Time Deposits of Residents	13099768	12945828	14036443	14015752	13980671
1.1.2.1 Short-term Time Deposits	5894896	5825622	6316400	6307088	6291302
1.1.2.1.1 Certificates of Deposits (CDs)	78702	63159	84894	98722	100092
1.1.2.2 Long-term Time Deposits	7204873	7120205	7720044	7708663	7689369
1.2 Call/Term Funding from Financial Institutions	244025	243063	269971	275737	271587
2 Sources					
2.1 Domestic Credit	16378019	16054242	17244818	17087709	17015040
2.1.1 Credit to the Government	4461632	4432986	4607365	4624647	4579446
2.1.2 Credit to the Commercial Sector	11916387	11621256	12637453	12463061	12435594
2.1.2.1 Bank Credit	10949509	10703752	11680480	11496877	11468977
2.1.2.1.1 Non-food Credit	10888255	10616642	11591800	11411196	11386587
2.1.2.2 Net Credit to Primary Dealers	23633	10040	6589	10362	9861
2.1.2.3 Investments in Other Approved Securities	894	1646	869	1137	1231
2.1.2.4 Other Investments (in non-SLR Securities)	942351	905819	949514	954686	955525
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	238802	206988	204416	209028	228539
2.2.1 Foreign Currency Assets	454866	428781	418116	420304	443146
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	152552	165378	138760	138878	139618
2.2.3 Overseas Foreign Currency Borrowings	63512	56415	74940	72398	74988
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	1010202	1140062	1475543	1385329	1296725
2.3.1 Balances with the RBI	542693	476349	716432	683105	681336
2.3.2 Cash in Hand	90748	89471	94182	87459	89774
2.3.3 Loans and Advances from the RBI	-376761	-574242	-664928	-614764	-525614
2.4 Capital Account	1578041	1565630	1730885	1734464	1737188
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	843995	955212	820827	827763	638621
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	593095	553165	559684	507565	530821
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	80681	73358	29767	27716	35577

No. 13: Scheduled Commercial Banks' Investments

(₹ Crore)

Item	As on March 26, 2021	2021		2022	
		Jan. 29	Dec. 31	Jan. 14	Jan. 28
	1	2	3	4	5
1 SLR Securities	4462526	4434632	4608235	4625784	4580677
2 Commercial Paper	82584	74509	53140	49347	51659
3 Shares issued by					
3.1 PSUs	9840	12011	8397	8422	8411
3.2 Private Corporate Sector	64035	69780	73060	73179	73112
3.3 Others	5210	5450	5007	5000	5020
4 Bonds/Debentures issued by					
4.1 PSUs	121008	126329	115386	113746	113382
4.2 Private Corporate Sector	308904	311745	341692	343142	338716
4.3 Others	149325	140989	147470	147822	147862
5 Instruments issued by					
5.1 Mutual funds	31142	30469	38153	45840	49961
5.2 Financial institutions	167130	134474	167086	168188	167402

No. 14: Business in India - All Scheduled Banks and All Scheduled Commercial Banks

(₹ Crore)

Item	As on the Last Reporting Friday (in case of March)/ Last Friday							
	All Scheduled Banks				All Scheduled Commercial Banks			
	2020-21	2021		2022	2020-21	2021		2022
		Jan.	Dec.	Jan.		Jan.	Dec.	Jan.
1	2	3	4	5	6	7	8	
Number of Reporting Banks	209	208	212	211	133	132	136	136
1 Liabilities to the Banking System	259530	261259	254662	270636	254589	256374	250071	266584
1.1 Demand and Time Deposits from Banks	200585	202813	190557	189586	195866	198144	186315	186194
1.2 Borrowings from Banks	40886	41913	37900	56311	40880	41913	37883	56015
1.3 Other Demand and Time Liabilities	18059	16533	26204	24738	17843	16316	25873	24375
2 Liabilities to Others	16457782	16089999	17590424	17345113	16014145	15655408	17144557	16909923
2.1 Aggregate Deposits	15540152	15221717	16670399	16452526	15113512	14802765	16241854	16032526
2.1.1 Demand	1899343	1728459	2109712	1954627	1861193	1691559	2066651	1912237
2.1.2 Time	13640809	13493258	14560688	14497899	13252320	13111206	14175203	14120289
2.2 Borrowings	248271	247395	274394	275942	244025	243063	269971	271587
2.3 Other Demand and Time Liabilities	669359	620887	645630	616644	656607	609580	632732	605809
3 Borrowings from Reserve Bank	90275	84597	102489	94286	90275	84597	102489	94286
3.1 Against Usance Bills /Promissory Notes	-	-	-	-	-	-	-	-
3.2 Others	90275	84597	102489	94286	90275	84597	102489	94286
4 Cash in Hand and Balances with Reserve Bank	650745	581938	830772	790665	633440	565820	810615	771110
4.1 Cash in Hand	92793	91572	96489	92106	90748	89471	94182	89774
4.2 Balances with Reserve Bank	557951	490366	734284	698559	542693	476349	716432	681336
5 Assets with the Banking System	265729	254569	288521	304279	197541	193056	226892	240868
5.1 Balances with Other Banks	179430	174179	192939	205548	143294	140128	156132	169574
5.1.1 In Current Account	16796	16068	19597	33165	14226	13638	16055	30638
5.1.2 In Other Accounts	162634	158111	173342	172383	129068	126491	140077	138936
5.2 Money at Call and Short Notice	36716	32342	32002	30454	10654	10113	12048	8759
5.3 Advances to Banks	19908	19319	30206	33966	16764	17286	28572	31166
5.4 Other Assets	29675	28730	33373	34312	26829	25529	30139	31369
6 Investment	4598924	4566898	4752766	4721946	4462526	4434632	4608235	4580677
6.1 Government Securities	4591896	4558728	4745699	4714750	4461632	4432986	4607365	4579446
6.2 Other Approved Securities	7029	8170	7067	7196	894	1646	869	1231
7 Bank Credit	11297014	11046037	11938940	11822460	10949509	10703752	11582087	11468977
7a Food Credit	91653	117510	124497	118207	61254	87109	88680	82390
7.1 Loans, Cash-credits and Overdrafts	11081668	10865787	11716596	11600105	10736491	10525542	11361984	11248917
7.2 Inland Bills-Purchased	30896	23728	34172	34140	30531	23465	34159	34127
7.3 Inland Bills-Discounted	128831	108219	136359	137848	127883	107357	135027	136504
7.4 Foreign Bills-Purchased	20762	17722	20865	19331	20394	17357	20446	18954
7.5 Foreign Bills-Discounted	34857	30581	30947	31036	34210	30031	30471	30476

No. 15: Deployment of Gross Bank Credit by Major Sectors

(₹ Crore)

Sector	Outstanding as on				Growth (%)	
	Mar.26, 2021	2021		2022	Financial year so far	Y-o-Y
		Jan.29	Dec.31	Jan.28	2021-22	2022
	1	2	3	4	%	%
I. Gross Bank Credit (II+III)	10949509	10703752	11683413	11582442	5.8	8.2
II. Food Credit	61254	87110	88680	82390	34.5	-5.4
III. Non-food Credit	10888255	10616642	11594733	11500052	5.6	8.3
1. Agriculture & Allied Activities	1334656	1298294	1417969	1432743	7.3	10.4
2. Industry (Micro and Small, Medium and Large)	2958092	2864224	2985278	3046833	3.0	6.4
2.1 Micro and Small ¹	402798	387891	447566	464420	15.3	19.7
2.2 Medium	138473	127877	224255	223376	61.3	74.7
2.3 Large	2416821	2348457	2313458	2359037	-2.4	0.5
3. Services	2764171	2707543	2848108	2904619	5.1	7.3
3.1 Transport Operators	143159	140706	141056	155422	8.6	10.5
3.2 Computer Software	19706	18059	19712	20344	3.2	12.7
3.3 Tourism, Hotels & Restaurants	50578	49384	52760	54461	7.7	10.3
3.4 Shipping	7254	7223	7026	6871	-5.3	-4.9
3.5 Aviation	25739	25518	12229	23407	-9.1	-8.3
3.6 Professional Services	107357	104971	105280	111576	3.9	6.3
3.7 Trade	628726	600582	644771	672389	6.9	12.0
3.7.1 Wholesale Trade	318011	287812	329918	333226	4.8	15.8
3.7.2 Retail Trade	310715	312770	314853	339163	9.2	8.4
3.8 Commercial Real Estate	272663	268810	270860	275661	1.1	2.5
3.9 Non-Banking Financial Companies (NBFCs) ² of which,	956486	915781	1002081	1014179	6.0	10.7
3.9.1 Housing Finance Companies (HFCs)	218704	201156	229942	232739	6.4	15.7
3.9.2 Public Financial Institutions (PFIs)	78987	76145	108035	122375	54.9	60.7
3.10 Other Services ³	552504	576510	592334	570309	3.2	-1.1
4. Personal Loans	2946819	2850050	3087845	3180477	7.9	11.6
4.1 Consumer Durables	17327	16825	13115	25744	48.6	53.0
4.2 Housing	1489722	1443145	1521439	1552989	4.2	7.6
4.3 Advances against Fixed Deposits	64143	59820	73011	70009	9.1	17.0
4.4 Advances to Individuals against share & bonds	4439	4033	4820	5017	13.0	24.4
4.5 Credit Card Outstanding	129742	129197	124743	141254	8.9	9.3
4.6 Education	64063	64575	63213	63057	-1.6	-2.4
4.7 Vehicle Loans	280180	274650	279485	281518	0.5	2.5
4.8 Loan against gold jewellery	60835	52323	70871	69521	14.3	32.9
4.9 Other Personal Loans	836368	805482	937148	971366	16.1	20.6
5. Priority Sector (Memo)						
5.1 Agriculture & Allied Activities ⁴	1272495	1251626	1346408	1354691	6.5	8.2
5.2 Micro & Small Enterprises ⁵	1161616	1187176	1253505	1244132	7.1	4.8
5.3 Medium Enterprises ⁶	211903	193818	276485	275363	29.9	42.1
5.4 Housing	488435	488802	468623	480738	-1.6	-1.6
5.5 Education Loans	48262	49915	46884	46303	-4.1	-7.2
5.6 Renewable Energy	1175	1377	1764	1965	67.3	42.7
5.7 Social Infrastructure	2661	2470	2333	2447	-8.1	-0.9
5.8 Export Credit	24231	19954	20067	24418	0.8	22.4
5.9 Others	16385	18473	19273	39788	142.8	115.4
5.10 Weaker Sections including net PSLC- SF/MF	864897	818870	897351	875210	1.2	6.9

Note 1: Data are provisional. Gross bank credit and non-food credit data are based on Section-42 return, which covers all scheduled commercial banks (SCBs), while sectoral non-food credit data are based on sector-wise and industry-wise bank credit (SIBC) return, which covers select banks accounting for about 92 per cent of total non-food credit extended by all SCBs.

Note 2: With effect from January 2021, sectoral credit data are based on revised format due to which values and growth rates of some of the existing components published earlier have undergone some changes.

¹ Micro & Small includes credit to micro & small industries in the manufacturing sector.

² NBFCs include HFCs, PFIs, Microfinance Institutions (MFIs), NBFCs engaged in gold loan and others.

³ Other Services include Mutual Fund (MFs), Banking and Finance other than NBFCs and MFs and other services which are not indicated elsewhere under services.

⁴ Agriculture and Allied Activities also include priority sector lending certificates (PSLCs).

⁵ Micro and Small Enterprises include credit to micro and small enterprises in manufacturing and services sector and also include PSLCs.

⁶ Medium Enterprises include credit to medium enterprises in the manufacturing and services sector.

No. 16: Industry-wise Deployment of Gross Bank Credit

(₹ Crore)

Industry	Outstanding as on				Growth (%)	
	Mar. 26, 2021	2021	2021	2022	Financial year so far	Y-o-Y
		Jan. 29	Dec.31	Jan. 28	2019-20	2022
	1	2	3	4	%	%
2 Industries (2.1 to 2.19)	2958092	2864224	2985278	3046833	3.0	6.4
2.1 Mining & Quarrying (incl. Coal)	46661	45918	52100	47827	2.5	4.2
2.2 Food Processing	157855	161985	164290	165796	5.0	2.4
2.2.1 Sugar	26263	28504	20748	21895	-16.6	-23.2
2.2.2 Edible Oils & Vanaspati	19180	19043	19369	18320	-4.5	-3.8
2.2.3 Tea	4713	4991	5155	5108	8.4	2.3
2.2.4 Others	107699	109446	119017	120473	11.9	10.1
2.3 Beverage & Tobacco	16846	16240	15794	16646	-1.2	2.5
2.4 Textiles	206225	213871	212884	218010	5.7	1.9
2.4.1 Cotton Textiles	91366	93927	91792	93860	2.7	-0.1
2.4.2 Jute Textiles	2808	2672	2995	3026	7.8	13.3
2.4.3 Man-Made Textiles	38881	37355	42667	42145	8.4	12.8
2.4.4 Other Textiles	73171	79917	75430	78979	7.9	-1.2
2.5 Leather & Leather Products	10749	10692	10868	11159	3.8	4.4
2.6 Wood & Wood Products	13922	13903	14259	14737	5.9	6.0
2.7 Paper & Paper Products	36172	35484	38234	38468	6.3	8.4
2.8 Petroleum, Coal Products & Nuclear Fuels	68358	54071	86527	75420	10.3	39.5
2.9 Chemicals & Chemical Products	196414	187672	198293	195326	-0.6	4.1
2.9.1 Fertiliser	32359	40992	30236	27348	-15.5	-33.3
2.9.2 Drugs & Pharmaceuticals	53552	51779	54700	56452	5.4	9.0
2.9.3 Petro Chemicals	45661	36741	42497	37394	-18.1	1.8
2.9.4 Others	64843	58160	70860	74132	14.3	27.5
2.10 Rubber, Plastic & their Products	55775	52952	65349	68172	22.2	28.7
2.11 Glass & Glassware	6671	7075	5810	5957	-10.7	-15.8
2.12 Cement & Cement Products	55361	60178	46586	47090	-14.9	-21.7
2.13 Basic Metal & Metal Product	332107	331857	286405	288814	-13.0	-13.0
2.13.1 Iron & Steel	234986	242618	187331	187808	-20.1	-22.6
2.13.2 Other Metal & Metal Product	97121	89240	99074	101007	4.0	13.2
2.14 All Engineering	152309	147370	155875	160233	5.2	8.7
2.14.1 Electronics	35319	33649	37587	38310	8.5	13.9
2.14.2 Others	116991	113721	118289	121924	4.2	7.2
2.15 Vehicles, Vehicle Parts & Transport Equipment	86003	86006	84887	88936	3.4	3.4
2.16 Gems & Jewellery	64459	69371	67881	74261	15.2	7.0
2.17 Construction	96349	99895	95644	97176	0.9	-2.7
2.18 Infrastructure	1105348	1043122	1135536	1168376	5.7	12.0
2.18.1 Power	572950	565481	591639	595469	3.9	5.3
2.18.2 Telecommunications	112195	91049	114040	127432	13.6	40.0
2.18.3 Roads	242831	213847	248869	262531	8.1	22.8
2.18.4 Airports	7327	7161	7510	6459	-11.9	-9.8
2.18.5 Ports	7586	8036	7268	7112	-6.3	-11.5
2.18.6 Railways	11263	11454	10079	10151	-9.9	-11.4
2.18.7 Other Infrastructure	151197	146094	156131	159223	5.3	9.0
2.19 Other Industries	250505	226562	248056	264428	5.6	16.7

Note : With effect from January 2021, sectoral credit data are based on revised format due to which values and growth rates of some of the existing components published earlier have undergone some changes.

No. 17: State Co-operative Banks Maintaining Accounts with the Reserve Bank of India

(₹ Crore)

Item	Last Reporting Friday (in case of March)/Last Friday/ Reporting Friday								
	2020-21	2020	2021						
		Dec, 25	Oct, 29	Nov, 05	Nov, 19	Nov, 26	Dec, 03	Dec, 17	Dec, 31
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	32	32	33	33	33	33	33	33	33
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	125859.6	128069.6	128013.9	127248.2	126843.4	126631.3	126775.8	126250.1	125717.1
2 Demand and Time Liabilities									
2.1 Demand Liabilities	23736.9	22701.0	25243.2	26361.0	24421.0	23568.9	24362.4	24175.7	25194.1
2.1.1 Deposits									
2.1.1.1 Inter-Bank	4896.9	4320.8	5539.9	6114.8	5879.7	5294.8	5644.8	5476.8	4992.8
2.1.1.2 Others	13,899.4	13899.7	14672.8	14884.2	13527.1	13473.5	13711.9	13239.2	13529.3
2.1.2 Borrowings from Banks	0.0	0.0	80.0	309.8	174.9	150.0	0.0	0.0	30.0
2.1.3 Other Demand Liabilities	4940.6	4480.4	4950.5	5052.1	4839.4	4650.6	5005.7	5459.6	6642.1
2.2 Time Liabilities	179957.5	174092.7	171867.5	172989.1	174852.8	175629.1	174844.3	176049.4	175645.6
2.2.1 Deposits									
2.2.1.1 Inter-Bank	65333.7	57412.6	56659.6	58734.0	58455.0	59386.8	58648.8	59937.1	60369.4
2.2.1.2 Others	111960.2	114169.8	113341.1	112364.0	113316.3	113157.7	113063.8	113010.9	112187.8
2.2.2 Borrowings from Banks	630.0	630.0	927.5	910.1	910.1	910.1	910.1	900.5	879.7
2.2.3 Other Time Liabilities	2033.7	1880.4	939.3	980.9	2171.4	2174.4	2221.5	2200.8	2208.6
3 Borrowing from Reserve Bank	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 Borrowings from a notified bank / Government	63559.8	58860.6	58096.5	57950.6	60487.7	62398.8	62643.7	62867.4	65323.6
4.1 Demand	15691.8	13515.1	12222.9	11745.3	12210.4	12380.4	12696.3	13148.7	12617.5
4.2 Time	47868.0	45345.5	45873.6	46205.3	48277.2	50018.4	49947.4	49718.6	52706.1
5 Cash in Hand and Balances with Reserve Bank	8151.1	7125.5	9282.9	9058.6	9268.7	9075.7	9590.4	9918.8	9710.1
5.1 Cash in Hand	570.3	568.6	722.8	631.3	722.6	691.6	636.1	673.2	706.3
5.2 Balance with Reserve Bank	7580.8	6556.9	8560.1	8427.3	8546.1	8384.1	8954.3	9245.6	9003.8
6 Balances with Other Banks in Current Account	1148.1	990.4	1299.6	1283.3	1280.3	1215.4	1245.1	1141.8	1419.1
7 Investments in Government Securities	64455.2	61776.2	71010.3	71104.6	71886.2	73814.2	73860.5	72595.8	71870.3
8 Money at Call and Short Notice	28835.7	25995.4	20265.8	20550.8	22786.2	21853.7	21465.8	23039.9	24601.8
9 Bank Credit (10.1+11)	114631.6	111808.2	107241.8	107467.1	107529.9	107879.4	108518.7	109958.7	109318.7
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	114612.1	111788.9	107221.4	107446.6	107509.4	107858.5	108497.9	109938.2	109298.1
10.2 Due from Banks	89429.1	86450.6	95223.9	95541.5	97554.3	99264.9	99615.8	100260.1	103321.6
11 Bills Purchased and Discounted	19.5	19.3	20.4	20.5	20.5	20.8	20.9	20.5	20.6

Prices and Production

No. 18: Consumer Price Index (Base: 2012=100)

Group/Sub group	2020-21			Rural			Urban			Combined		
	Rural	Urban	Combined	Jan. 21	Dec. 21	Jan 22(P)	Jan. 21	Dec. 21	Jan 22(P)	Jan. 21	Dec. 21	Jan 22(P)
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	156.7	161.1	158.3	155.7	165.8	164.1	160.8	172.2	170.3	157.6	168.2	166.4
1.1 Cereals and products	145.4	149.9	146.8	142.9	147.4	148.2	147.8	151.6	152.1	144.5	148.7	149.4
1.2 Meat and fish	185.2	192.4	187.7	186.1	197.0	196.9	192.5	202.2	202.1	188.4	198.8	198.7
1.3 Egg	160.3	164.8	162.0	174.4	176.5	178.0	175.7	180.0	180.1	174.9	177.9	178.8
1.4 Milk and products	154.1	154.4	154.2	154.1	159.8	160.5	154.4	160.0	160.4	154.2	159.9	160.5
1.5 Oils and fats	148.2	139.9	145.2	159.7	195.8	192.6	148.5	173.5	171.0	155.6	187.6	184.7
1.6 Fruits	146.9	153.4	149.9	147.9	152.0	151.4	153.1	158.3	156.4	150.3	154.9	153.7
1.7 Vegetables	174.2	196.2	181.7	157.1	172.3	159.3	182.8	219.5	203.9	165.8	188.3	174.4
1.8 Pulses and products	154.4	156.0	154.9	158.6	164.5	164.0	160.2	164.2	163.8	159.1	164.4	163.9
1.9 Sugar and confectionery	114.4	117.0	115.3	112.9	120.6	119.3	115.5	121.9	121.2	113.8	121.0	119.9
1.10 Spices	161.9	160.4	161.4	165.1	171.7	173.3	163.0	168.2	169.8	164.4	170.5	172.1
1.11 Non-alcoholic beverages	149.8	141.3	146.3	158.5	169.7	169.8	147.7	156.5	156.5	154.0	164.2	164.2
1.12 Prepared meals, snacks, sweets	163.2	165.5	164.3	165.1	175.1	175.8	168.5	178.2	179.0	166.7	176.5	177.3
2 Pan, tobacco and intoxicants	181.8	188.7	183.6	185.8	190.8	190.7	192.7	196.8	196.4	187.6	192.4	192.2
3 Clothing and footwear	155.6	149.7	153.3	157.5	171.2	172.7	151.0	160.7	162.3	154.9	167.0	168.6
3.1 Clothing	156.4	152.0	154.7	158.2	171.8	173.2	153.4	163.3	164.7	156.3	168.5	169.9
3.2 Footwear	151.1	137.2	145.3	153.1	167.3	169.3	137.9	146.7	148.5	146.8	158.7	160.7
4 Housing	-	157.2	157.2	-	-	-	158.9	163.4	164.5	158.9	163.4	164.5
5 Fuel and light	149.1	140.9	146.0	152.9	165.6	165.8	145.7	161.7	161.5	150.2	164.1	164.2
6 Miscellaneous	153.9	146.1	150.2	156.7	166.0	166.6	148.5	157.8	158.6	152.7	162.0	162.7
6.1 Household goods and services	152.9	145.2	149.3	154.3	163.9	164.9	146.0	156.0	156.8	150.4	160.2	161.1
6.2 Health	160.3	151.3	156.9	163.5	174.0	174.7	155.2	165.1	166.1	160.4	170.6	171.4
6.3 Transport and communication	144.9	135.0	139.7	148.7	160.1	161.0	138.2	151.8	152.7	143.2	155.7	156.6
6.4 Recreation and amusement	154.0	144.3	148.5	156.1	164.5	164.8	146.4	157.6	158.4	150.6	160.6	161.2
6.5 Education	162.5	156.2	158.9	163.1	169.7	169.9	156.8	160.6	161.1	159.4	164.4	164.7
6.6 Personal care and effects	153.7	155.8	154.5	156.9	162.8	163.2	158.3	162.4	162.8	157.5	162.6	163.0
General Index (All Groups)	156.1	154.4	155.3	156.8	167.0	166.4	155.8	165.2	165.0	156.3	166.2	165.7

Source: National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India.

P: Provisional.

No. 19: Other Consumer Price Indices

Item	Base Year	Linking Factor	2020-21	2021		2022
				Jan.	Dec.	Jan.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2016	2.88	-	118.2	125.4	125.1
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	1034	1038	1097	1095
3 Consumer Price Index for Rural Labourers	1986-87	-	1040	1045	1106	1105

Source: Labour Bureau, Ministry of Labour and Employment, Government of India.

No. 20: Monthly Average Price of Gold and Silver in Mumbai

Item	2020-21	2021		2022
		Jan.	Dec.	Jan.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	48723	49612	47890	47960
2 Silver (₹ per kilogram)	59283	66785	61280	62038

Source: India Bullion & Jewellers Association Ltd., Mumbai for Gold and Silver prices in Mumbai.

No. 21: Wholesale Price Index

(Base: 2011-12 = 100)

Commodities	Weight	2020-21	2021			2022
			Jan.	Nov.	Dec. (P)	Jan. (P)
	1	2	3	4	5	6
1 ALL COMMODITIES	100.000	123.4	126.5	143.7	142.4	142.9
1.1 PRIMARY ARTICLES	22.618	145.7	144.9	168.4	167.8	165.0
1.1.1 FOOD ARTICLES	15.256	160.7	155.8	178.3	176.5	171.9
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	159.3	157.2	164.7	165.1	165.5
1.1.1.2 Fruits & Vegetables	3.475	179.2	158.3	234.4	227.0	202.0
1.1.1.3 Milk	4.440	153.4	154.0	157.5	157.3	157.4
1.1.1.4 Eggs,Meat & Fish	2.402	151.2	150.3	163.0	161.3	165.1
1.1.1.5 Condiments & Spices	0.529	149.5	151.5	161.7	165.8	168.6
1.1.1.6 Other Food Articles	0.948	162.0	166.0	168.6	167.0	171.9
1.1.2 NON-FOOD ARTICLES	4.119	130.5	137.7	156.5	164.2	164.8
1.1.2.1 Fibres	0.839	119.8	126.1	161.1	166.8	172.2
1.1.2.2 Oil Seeds	1.115	161.7	171.0	202.3	210.1	210.8
1.1.2.3 Other non-food Articles	1.960	109.0	114.2	121.0	121.9	122.2
1.1.2.4 Floriculture	0.204	210.0	228.7	228.7	309.8	292.2
1.1.3 MINERALS	0.833	164.9	172.8	198.6	178.7	198.5
1.1.3.1 Metallic Minerals	0.648	159.8	168.3	194.7	169.4	194.7
1.1.3.2 Other Minerals	0.185	183.1	188.5	212.1	211.2	211.9
1.1.4 CRUDE PETROLEUM & NATURAL GAS	2.410	70.4	78.7	115.5	115.4	109.5
1.2 FUEL & POWER	13.152	94.0	100.7	136.0	128.2	133.2
1.2.1 COAL	2.138	126.6	127.0	130.4	130.9	130.9
1.2.1.1 Coking Coal	0.647	141.8	141.9	143.4	143.4	143.4
1.2.1.2 Non-Coking Coal	1.401	119.3	119.8	119.8	119.8	119.8
1.2.1.3 Lignite	0.090	130.9	131.1	200.5	212.6	212.6
1.2.2 MINERAL OILS	7.950	79.2	87.4	139.3	131.9	133.0
1.2.3 ELECTRICITY	3.064	109.6	116.9	131.5	116.7	135.3
1.3 MANUFACTURED PRODUCTS	64.231	121.5	125.3	136.6	136.4	137.1
1.3.1 MANUFACTURE OF FOOD PRODUCTS	9.122	141.4	145.2	157.6	156.6	157.0
1.3.1.1 Processing and Preserving of meat	0.134	137.2	138.7	142.6	143.8	142.7
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	139.0	140.3	150.3	143.6	148.3
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	120.2	121.1	122.0	121.7	122.4
1.3.1.4 Vegetable and Animal oils and Fats	2.643	143.5	159.0	184.2	181.1	180.9
1.3.1.5 Dairy products	1.165	146.9	147.0	148.0	147.8	148.7
1.3.1.6 Grain mill products	2.010	143.5	142.0	146.7	146.6	147.0
1.3.1.7 Starches and Starch products	0.110	115.9	118.9	136.3	138.1	141.7
1.3.1.8 Bakery products	0.215	138.1	138.6	148.1	149.2	150.6
1.3.1.9 Sugar, Molasses & honey	1.163	118.4	116.8	125.5	125.2	124.7
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	128.0	128.4	130.3	133.0	132.8
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	132.3	130.2	133.4	131.4	142.3
1.3.1.12 Tea & Coffee products	0.371	166.5	158.3	172.0	172.8	171.3
1.3.1.13 Processed condiments & salt	0.163	147.0	149.1	158.0	157.7	162.4
1.3.1.14 Processed ready to eat food	0.024	132.2	132.4	135.5	136.4	137.0
1.3.1.15 Health supplements	0.225	142.9	138.8	154.3	153.1	153.0
1.3.1.16 Prepared animal feeds	0.356	170.5	172.6	197.1	197.6	199.8
1.3.2 MANUFACTURE OF BEVERAGES	0.909	124.5	123.8	127.3	127.2	127.2
1.3.2.1 Wines & spirits	0.408	120.2	119.7	123.9	123.8	123.9
1.3.2.2 Malt liquors and Malt	0.225	126.5	124.6	131.5	131.7	131.5
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	129.4	129.1	128.7	128.5	128.4
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	0.514	157.2	157.7	159.1	161.5	161.0
1.3.3.1 Tobacco products	0.514	157.2	157.7	159.1	161.5	161.0

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2020-21	2021			2022
			Jan.	Nov.	Dec. (P)	Jan. (P)
1.3.4 MANUFACTURE OF TEXTILES	4.881	117.6	123.1	138.1	139.1	140.0
1.3.4.1 Preparation and Spinning of textile fibres	2.582	106.6	114.4	132.6	133.4	134.8
1.3.4.2 Weaving & Finishing of textiles	1.509	131.7	135.2	147.9	149.6	149.5
1.3.4.3 Knitted and Crocheted fabrics	0.193	115.2	115.6	126.8	127.0	128.6
1.3.4.4 Made-up textile articles, Except apparel	0.299	132.3	133.9	140.0	141.1	142.2
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	155.6	160.6	170.9	167.1	167.8
1.3.4.6 Other textiles	0.201	116.3	115.7	128.2	128.2	128.8
1.3.5 MANUFACTURE OF WEARING APPAREL	0.814	138.6	139.5	144.2	144.0	144.6
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	138.1	138.6	142.8	142.4	143.2
1.3.5.2 Knitted and Crocheted apparel	0.221	139.8	141.8	148.0	148.5	148.2
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	0.535	117.9	118.6	118.7	119.3	121.1
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	101.1	100.2	102.2	102.5	102.4
1.3.6.2 Luggage, HandbAgs, Saddlery and Harness	0.075	138.6	138.6	142.1	142.5	143.7
1.3.6.3 Footwear	0.318	120.6	122.1	120.6	121.3	124.2
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	0.772	134.6	136.3	142.1	143.0	142.3
1.3.7.1 Saw milling and Planing of wood	0.124	120.7	122.3	131.4	131.6	131.4
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	136.6	138.2	143.0	144.1	142.9
1.3.7.3 Builder's carpentry and Joinery	0.036	185.8	189.6	194.4	194.5	194.6
1.3.7.4 Wooden containers	0.119	125.7	127.2	134.2	134.4	135.2
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	1.113	121.7	124.0	139.6	140.8	141.6
1.3.8.1 Pulp, Paper and Paperboard	0.493	124.1	126.3	144.4	145.3	144.5
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	122.2	126.8	138.0	138.2	140.6
1.3.8.3 Other articles of paper and Paperboard	0.306	117.4	117.2	133.4	136.2	137.8
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	0.676	153.8	155.6	158.4	161.5	163.4
1.3.9.1 Printing	0.676	153.8	155.6	158.4	161.5	163.4
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	6.465	118.2	120.8	136.4	136.9	137.4
1.3.10.1 Basic chemicals	1.433	118.6	122.9	150.0	149.5	149.6
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	123.6	123.6	129.6	131.1	133.2
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	116.7	122.5	144.3	142.3	141.1
1.3.10.4 Pesticides and Other agrochemical products	0.454	124.4	125.3	131.4	133.9	135.8
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	114.9	117.1	134.1	137.0	137.0
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	120.6	121.8	129.9	130.8	131.1
1.3.10.7 Other chemical products	0.692	115.1	116.5	134.0	134.0	135.3
1.3.10.8 Man-made fibres	0.296	93.7	97.7	109.2	109.2	108.8
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	1.993	130.9	131.5	136.2	137.3	137.2
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	130.9	131.5	136.2	137.3	137.2
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	2.299	111.3	116.1	127.6	127.0	127.1
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	98.3	99.4	104.9	106.5	105.9
1.3.12.2 Other Rubber Products	0.272	93.3	94.4	103.9	104.8	104.1
1.3.12.3 Plastics products	1.418	120.3	127.5	141.8	140.0	140.6
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	3.202	117.6	117.4	125.3	125.1	125.7
1.3.13.1 Glass and Glass products	0.295	127.2	129.4	138.1	141.1	145.2
1.3.13.2 Refractory products	0.223	109.5	110.9	116.7	118.8	119.0
1.3.13.3 Clay Building Materials	0.121	109.3	108.4	119.0	120.9	131.3
1.3.13.4 Other Porcelain and Ceramic Products	0.222	109.5	111.1	112.2	114.3	116.2
1.3.13.5 Cement, Lime and Plaster	1.645	120.9	119.0	128.9	127.7	126.6

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2020-21	2021			2022
			Jan.	Nov.	Dec. (P)	Jan. (P)
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	125.3	126.0	129.2	129.5	129.6
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	121.1	123.2	122.6	120.4	121.4
1.3.13.8 Other Non-Metallic Mineral Products	0.169	78.9	81.9	97.2	96.6	99.0
1.3.14 MANUFACTURE OF BASIC METALS	9.646	111.4	122.8	143.6	141.5	142.8
1.3.14.1 Inputs into steel making	1.411	109.2	123.2	163.6	153.3	155.8
1.3.14.2 Metallic Iron	0.653	113.3	128.0	150.4	145.2	149.2
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	99.8	107.2	119.3	118.3	119.9
1.3.14.4 Mild Steel -Long Products	1.081	112.0	125.6	140.4	139.1	139.3
1.3.14.5 Mild Steel - Flat products	1.144	117.2	136.8	163.5	160.6	156.1
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	108.3	120.6	133.6	131.1	136.2
1.3.14.7 Stainless Steel - Semi Finished	0.924	108.7	126.1	139.5	142.7	144.8
1.3.14.8 Pipes & tubes	0.205	127.9	134.7	160.1	161.8	163.9
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	112.3	119.2	143.1	142.8	145.3
1.3.14.10 Castings	0.925	109.1	112.8	118.7	119.2	120.7
1.3.14.11 Forgings of steel	0.271	145.7	147.6	160.2	160.6	165.1
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	3.155	115.9	119.7	132.4	133.6	133.7
1.3.15.1 Structural Metal Products	1.031	114.1	119.7	124.1	126.9	124.6
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	127.8	134.4	160.7	161.4	160.9
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	98.9	97.2	97.6	97.6	98.0
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	96.7	96.0	122.7	120.0	125.0
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	102.9	103.9	109.7	109.7	109.9
1.3.15.6 Other Fabricated Metal Products	0.728	125.0	127.8	136.9	139.2	140.6
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	2.009	109.8	110.1	113.9	113.2	114.3
1.3.16.1 Electronic Components	0.402	99.1	99.8	106.8	106.7	108.3
1.3.16.2 Computers and Peripheral Equipment	0.336	134.8	134.4	134.9	134.9	134.8
1.3.16.3 Communication Equipment	0.310	114.9	115.1	120.5	119.8	121.3
1.3.16.4 Consumer Electronics	0.641	98.5	99.1	103.1	100.9	102.3
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	107.7	108.8	107.1	108.5	109.2
1.3.16.6 Watches and Clocks	0.076	141.8	141.8	145.6	146.5	145.7
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	102.8	101.5	106.1	107.1	107.1
1.3.16.8 Optical instruments and Photographic equipment	0.008	102.7	95.2	98.4	98.4	99.5
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	2.930	113.6	115.7	123.2	123.5	124.4
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	113.2	115.3	120.3	121.0	120.8
1.3.17.2 Batteries and Accumulators	0.236	117.1	115.6	123.1	124.1	125.6
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	98.1	101.6	103.8	100.6	104.1
1.3.17.4 Other electronic and Electric wires and Cables	0.428	115.9	122.5	142.2	141.7	144.6
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	111.1	111.4	115.6	115.5	115.7
1.3.17.6 Domestic appliances	0.366	119.7	121.0	129.6	130.4	131.3
1.3.17.7 Other electrical equipment	0.206	109.5	109.8	113.2	113.4	115.8
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	4.789	114.0	115.3	120.8	120.8	121.6
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	106.3	108.4	120.7	121.5	121.0
1.3.18.2 Fluid power equipment	0.162	119.4	120.1	123.8	122.1	123.2
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	111.6	112.4	116.1	116.0	116.6
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	111.8	111.9	117.4	118.0	119.1
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	80.2	82.5	73.1	73.0	72.7
1.3.18.6 Lifting and Handling equipment	0.285	113.4	115.6	121.6	121.3	124.4

No. 21: Wholesale Price Index (Concl.)

(Base: 2011-12 = 100)

Commodities	Weight	2020-21	2021			2022
			Jan.	Nov.	Dec. (P)	Jan. (P)
1.3.18.7 Office machinery and Equipment	0.006	130.2	130.2	130.2	130.2	130.2
1.3.18.8 Other general-purpose machinery	0.437	128.7	130.6	132.9	130.6	133.7
1.3.18.9 Agricultural and Forestry machinery	0.833	121.6	122.7	129.8	130.1	131.0
1.3.18.10 Metal-forming machinery and Machine tools	0.224	108.4	108.2	116.0	115.8	115.8
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	75.7	76.6	78.7	78.7	78.7
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	128.0	132.4	131.8	131.0	130.7
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	121.9	122.4	126.2	126.2	128.0
1.3.18.14 Other special-purpose machinery	0.468	128.7	129.6	134.8	135.7	136.0
1.3.18.15 Renewable electricity generating equipment	0.046	65.2	66.0	66.3	66.8	66.9
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	4.969	117.8	118.7	124.0	123.9	124.7
1.3.19.1 Motor vehicles	2.600	119.4	120.9	123.6	123.8	124.3
1.3.19.2 Parts and Accessories for motor vehicles	2.368	116.1	116.2	124.4	124.1	125.2
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	1.648	126.2	128.3	132.7	133.0	133.6
1.3.20.1 Building of ships and Floating structures	0.117	158.8	158.8	158.9	158.9	158.9
1.3.20.2 Railway locomotives and Rolling stock	0.110	105.0	104.6	104.9	103.8	105.6
1.3.20.3 Motor cycles	1.302	124.7	127.1	132.2	132.6	133.2
1.3.20.4 Bicycles and Invalid carriages	0.117	130.3	134.3	137.9	138.0	138.2
1.3.20.5 Other transport equipment	0.002	128.5	129.3	137.7	137.4	138.6
1.3.21 MANUFACTURE OF FURNITURE	0.727	133.2	136.7	150.4	151.4	154.6
1.3.21.1 Furniture	0.727	133.2	136.7	150.4	151.4	154.6
1.3.22 OTHER MANUFACTURING	1.064	132.4	133.7	136.6	137.1	138.3
1.3.22.1 Jewellery and Related articles	0.996	130.5	131.9	134.6	135.2	136.5
1.3.22.2 Musical instruments	0.001	173.7	175.1	192.6	195.7	195.0
1.3.22.3 Sports goods	0.012	132.0	134.2	142.1	142.6	144.0
1.3.22.4 Games and Toys	0.005	142.4	143.0	151.6	151.1	149.4
1.3.22.5 Medical and Dental instruments and Supplies	0.049	167.4	168.9	172.9	171.1	170.8
2 FOOD INDEX	24.378	153.4	151.8	170.6	169.0	166.3

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

No. 22: Index of Industrial Production (Base:2011-12=100)

Industry	Weight	2019-20	2020-21	April-December		December	
				2020-21	2021-22	2020	2021
	1	2	3	4	5	6	7
General Index	100.00	129.0	118.1	111.7	128.7	137.4	138.0
1 Sectoral Classification							
1.1 Mining	14.37	109.6	101.0	92.6	107.4	117.3	120.3
1.2 Manufacturing	77.63	129.6	117.2	110.8	128.5	139.0	138.8
1.3 Electricity	7.99	158.4	157.6	154.8	169.3	158.0	162.5
2 Use-Based Classification							
2.1 Primary Goods	34.05	127.0	118.1	112.6	125.9	130.1	133.7
2.2 Capital Goods	8.22	93.3	75.9	68.3	84.8	95.8	91.4
2.3 Intermediate Goods	17.22	137.7	124.7	117.1	141.2	150.3	150.7
2.4 Infrastructure/ Construction Goods	12.34	136.6	124.7	116.4	144.2	151.0	153.5
2.5 Consumer Durables	12.84	119.0	101.2	92.6	111.5	124.9	121.5
2.6 Consumer Non-Durables	15.33	145.3	142.1	139.0	146.5	161.1	160.2

Source : National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India.

Government Accounts and Treasury Bills

No. 23: Union Government Accounts at a Glance

(₹ Crore)

Item	Financial Year	April - January			
	2021-22 (Revised Estimates)	2021-22 (Actuals)	2020-21 (Actuals)	Percentage to Revised Estimates	
				2021-22	2020-21
	1	2	3	4	5
1 Revenue Receipts	2078936	1838921	1242959	88.5	79.9
1.1 Tax Revenue (Net)	1765145	1547436	1101855	87.7	82.0
1.2 Non-Tax Revenue	313791	291485	141104	92.9	67.0
2 Non-Debt Capital Receipt	99975	32595	40355	32.6	86.8
2.1 Recovery of Loans	21975	20527	15804	93.4	109.0
2.2 Other Receipts	78000	12068	24551	15.5	76.7
3 Total Receipts (excluding borrowings) (1+2)	2178911	1871516	1283314	85.9	80.1
4 Revenue Expenditure	3167289	2367698	2155210	74.8	71.6
4.1 Interest Payments	813791	614626	519597	75.5	75.0
5 Capital Expenditure	602711	441686	362108	73.3	82.5
6 Total Expenditure (4+5)	3770000	2809384	2517318	74.5	73.0
7 Revenue Deficit (4-1)	1088352	528777	912251	48.6	62.7
8 Fiscal Deficit (6-3)	1591089	937868	1234004	58.9	66.8
9 Gross Primary Deficit (8-4.1)	777298	323242	714407	41.6	61.8

Source: Controller General of Accounts (CGA), Ministry of Finance, Government of India and Union Budget 2022-23.

No. 24: Treasury Bills – Ownership Pattern

(₹ Crore)

Item	2021-22	2021			2022			
		Jan. 29	Dec. 24	Dec. 31	Jan. 7	Jan. 14	Jan. 21	Jan. 28
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	5158	2964	12767	9354	7834	7232	6179	4606
1.2 Primary Dealers	15686	20930	29687	26882	19596	20064	20650	23278
1.3 State Governments	53546	62912	102016	103016	102899	97904	92809	89751
1.4 Others	77882	92430	100679	106541	107418	102457	97846	92332
2 182-day								
2.1 Banks	62566	68922	58141	56154	53625	52152	53310	53165
2.2 Primary Dealers	52764	31222	34421	32988	35996	39824	43400	46518
2.3 State Governments	9826	3816	6318	6458	5453	5428	5524	4026
2.4 Others	53438	68945	27631	19711	24906	29727	30924	32920
3 364-day								
3.1 Banks	119467	154467	119885	115964	117370	115765	118211	112628
3.2 Primary Dealers	127426	136064	111859	117965	114057	114598	119860	127319
3.3 State Governments	22851	15855	17843	21643	22001	21981	21981	23136
3.4 Others	122944	135156	97357	99125	104838	109545	105238	106626
4 14-day Intermediate								
4.1 Banks								
4.2 Primary Dealers								
4.3 State Governments	315325	193438	156242	139739	101003	92655	210638	224416
4.4 Others	1524	198	60	761	1123	743	1263	724
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	723556	793683	718603	715802	715994	716679	715931	716307

14D intermediate T-Bills are non-marketable unlike 91D, 182D and 364D T-Bills. These bills are 'intermediate' by nature as these are liquidated to replenish shortfall in the daily minimum cash balances of State Governments

No. 25: Auctions of Treasury Bills

(Amount in ₹ Crore)

Date of Auction	Notified Amount	Bids Received				Bids Accepted			Total Issue (6+7)	Cut-off Price	Implicit Yield at Cut-off Price (per cent)
		Number	Total Face Value		Number	Total Face Value					
			Competitive	Non-Competitive		Competitive	Non-Competitive				
1	2	3	4	5	6	7	8	9	10		
91-day Treasury Bills											
2021-22											
Dec. 29	10000	149	66767	5051	32	9949	5051	15000	99.10	3.6570	
Jan. 5	5000	92	31520	1	6	4999	1	5000	99.12	3.5594	
Jan. 12	5000	88	30152	2201	27	4999	2201	7200	99.12	3.5671	
Jan. 19	5000	102	25393	3201	21	4999	3201	8200	99.09	3.6856	
Jan. 25	5000	82	20841	6313	28	4997	6313	11310	99.08	3.7080	
182-day Treasury Bills											
2021-22											
Dec. 29	3000	100	12645	1029	29	3000	1029	4028	98.06	3.9699	
Jan. 5	10000	165	47323	20	29	9980	20	10000	98.04	4.0175	
Jan. 12	10000	158	44187	0	42	10000	0	10000	98.03	4.0281	
Jan. 19	10000	103	19487	1	71	9999	1	10000	97.99	4.1242	
Jan. 25	10000	99	21073	700	68	10000	700	10700	97.96	4.1789	
364-day Treasury Bills											
2021-22											
Dec. 29	7000	116	22770	3800	46	7000	3800	10800	95.92	4.2650	
Jan. 5	11000	153	23959	528	90	10996	528	11523	95.85	4.3400	
Jan. 12	11000	123	22457	35	75	10965	35	11000	95.81	4.3800	
Jan. 19	11000	128	22775	0	98	11000	0	11000	95.73	4.4727	
Jan. 25	11000	126	27590	1136	55	10964	1136	12100	95.70	4.5053	

Financial Markets

No. 26: Daily Call Money Rates

(Per cent per annum)

As on		Range of Rates	Weighted Average Rates
		Borrowings/ Lendings	Borrowings/ Lendings
		1	2
January	1, 2022	2.70-3.70	3.27
January	3, 2022	2.00-3.50	3.29
January	4, 2022	2.00-3.50	3.28
January	5, 2022	2.00-3.45	3.21
January	6, 2022	2.00-3.45	3.21
January	7, 2022	2.10-3.65	3.26
January	10, 2022	2.10-3.60	3.31
January	11, 2022	2.10-3.65	3.36
January	12, 2022	2.10-3.55	3.33
January	13, 2022	2.10-3.45	3.27
January	14, 2022	2.10-4.10	3.41
January	15, 2022	2.65-3.60	3.07
January	17, 2022	2.10-3.75	3.41
January	18, 2022	2.10-4.53	3.61
January	19, 2022	2.10-4.50	3.66
January	20, 2022	2.10-4.65	3.98
January	21, 2022	2.20-4.55	3.99
January	24, 2022	2.20-4.50	3.96
January	25, 2022	2.20-4.15	3.67
January	27, 2022	2.20-4.25	3.68
January	28, 2022	2.20-4.00	3.55
January	29, 2022	2.70-3.25	2.89
January	31, 2022	2.00-3.40	3.22
February	1, 2022	2.20-3.60	3.25
February	2, 2022	2.20-3.80	3.30
February	3, 2022	2.20-3.50	3.22
February	4, 2022	2.20-3.60	3.27
February	5, 2022	2.70-3.25	2.92
February	8, 2022	2.20-3.50	3.26
February	9, 2022	2.20-3.60	3.28
February	10, 2022	2.00-3.60	3.27
February	11, 2022	2.20-3.55	3.28
February	14, 2022	2.20-3.60	3.27
February	15, 2022	2.00-3.45	3.26

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2021			2022	
	Jan. 29	Dec. 17	Dec. 31	Jan. 14	Jan. 28
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	62026.32	73298.30	84702.40	101151.87	99706.14
1.1 Issued during the fortnight (₹ Crore)	530.14	12506.20	17497.20	17328.85	2343.76
2 Rate of Interest (per cent)	3.82-4.72	3.53-4.72	3.74-5.31	3.57-4.98	3.78-5.09

No. 28: Commercial Paper

Item	2021			2022	
	Jan. 31	Dec. 15	Dec. 31	Jan. 15	Jan. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	410651.90	446975.40	350068.65	386159.90	395881.00
1.1 Reported during the fortnight (₹ Crore)	89040.60	161701.60	87182.55	64665.30	71201.95
2 Rate of Interest (per cent)	3.18-11.32	3.38-12.34	3.50-12.31	3.39-13.45	3.47-12.32

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Crore)

Item	2020-21	2021			2022			
		Jan. 29	Dec. 24	Dec. 31	Jan. 7	Jan. 14	Jan. 21	Jan. 28
	1	2	3	4	5	6	7	8
1 Call Money	17461	17057	17695	13822	13780	15648	15138	13113
2 Notice Money	2604	4876	616	3125	276	4159	368	4614
3 Term Money	757	576	735	640	484	357	334	376
4 Triparty Repo	421118	589855	665034	834645	687648	811201	612806	800727
5 Market Repo	337341	363896	337263	402671	370324	428782	380765	420810
6 Repo in Corporate Bond	2990	2957	234	0	52	208	371	389
7 Forex (US \$ million)	67793	86840	70064	75085	56953	69453	63714	87352
8 Govt. of India Dated Securities	62490	36158	48074	37640	36648	35242	43016	34980
9 State Govt. Securities	5080	5991	5237	6397	5010	4688	5883	6719
10 Treasury Bills								
10.1 91-Day	4970	2970	5688	4503	6141	2724	2689	1941
10.2 182-Day	4870	5074	1149	1706	6182	3837	2833	1733
10.3 364-Day	4010	4138	2815	2120	6260	4294	2656	3642
10.4 Cash Management Bills	1490							
11 Total Govt. Securities (8+9+10)	82910	54330	62963	52366	60242	50784	57077	49015
11.1 RBI	-	242	892	1662	1766	685	201	155

No. 30: New Capital Issues By Non-Government Public Limited Companies

(Amount in ₹ Crore)

Security & Type of Issue	2020-21		2020-21 (Apr.-Jan.)		2021-22 (Apr.-Jan.) *		Jan. 2021		Jan. 2022 *	
	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
	1	2	3	4	5	6	7	8	9	10
1 Equity Shares	74	102062	49	89771	135	130898	2	381	11	815
1A Premium	73	97648	49	86081	127	129017	2	374	10	728
1.1 Public	53	38004	32	28783	102	105585	1	300	6	715
1.1.1 Premium	53	34848	32	25871	101	104395	1	295	6	670
1.2 Rights	21	64059	17	60988	33	25311	1	81	5	99
1.2.1 Premium	20	62800	17	60210	26	24622	1	79	4	58
2 Preference Shares	–	–	–	–	–	–	–	–	–	–
2.1 Public	–	–	–	–	–	–	–	–	–	–
2.2 Rights	–	–	–	–	–	–	–	–	–	–
3 Bonds & Debentures	16	5806	13	4690	24	10717	3	819	–	–
3.1 Convertible	–	–	–	–	–	–	–	–	–	–
3.1.1 Public	–	–	–	–	–	–	–	–	–	–
3.1.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2 Non-Convertible	16	5806	13	4690	24	10717	3	819	–	–
3.2.1 Public	16	5806	13	4690	24	10717	3	819	–	–
3.2.2 Rights	–	–	–	–	–	–	–	–	–	–
4 Total(1+2+3)	90	107868	62	94461	159	141614	5	1200	11	815
4.1 Public	69	43809	45	33473	126	116302	4	1119	6	715
4.2 Rights	21	64059	17	60988	33	25311	1	81	5	99

Note : 1. Since April 2020, monthly data on equity issues is compiled on the basis of their listing date.

2. Figures in the columns might not add up to the total due to rounding of numbers.

Source : Securities and Exchange Board of India.

* : Data is Provisional

External Sector

No. 31: Foreign Trade

Item	Unit	2020-21	2021					2022
			Jan.	Sep.	Oct.	Nov.	Dec.	Jan.
		1	2	3	4	5	6	7
1 Exports	₹ Crore	2159043	201331	248750	267628	237089	295762	256833
	US \$ Million	291808	27538	33814	35724	31825	39240	34501
1.1 Oil	₹ Crore	190896	15616	38219	40177	41314	51466	31042
	US \$ Million	25804	2136	5195	5363	5546	6828	4170
1.2 Non-oil	₹ Crore	1968147	185715	210531	227451	195775	244296	225791
	US \$ Million	266004	25402	28619	30361	26280	32412	30331
2 Imports	₹ Crore	2915958	307279	415507	400348	394180	450924	386538
	US \$ Million	394436	42030	56483	53440	52913	59826	51925
2.1 Oil	₹ Crore	611353	68900	125153	93949	109325	124324	89028
	US \$ Million	82684	9424	17013	12541	14675	16495	11959
2.2 Non-oil	₹ Crore	2304605	238379	290354	306399	284855	326600	297511
	US \$ Million	311752	32606	39470	40899	38237	43331	39966
3 Trade Balance	₹ Crore	-756914	-105949	-166758	-132720	-157092	-155162	-129705
	US \$ Million	-102627	-14492	-22669	-17716	-21087	-20586	-17424
3.1 Oil	₹ Crore	-420457	-53284	-86934	-53772	-68012	-72858	-57986
	US \$ Million	-56880	-7288	-11818	-7178	-9129	-9666	-7789
3.2 Non-oil	₹ Crore	-336458	-52664	-79824	-78948	-89080	-82304	-71720
	US \$ Million	-45748	-7203	-10851	-10538	-11958	-10920	-9634

Source: DGCI&S and Ministry of Commerce & Industry.

No. 32: Foreign Exchange Reserves

Item	Unit	2021	2022					
		Feb. 26	Jan. 21	Jan. 28	Feb. 4	Feb. 11	Feb. 18	Feb. 25
		1	2	3	4	5	6	7
1 Total Reserves	₹ Crore	4294511	4719835	4727298	4720099	4752438	4725881	4755726
	US \$ Million	584554	634287	629755	631953	630190	632952	631527
1.1 Foreign Currency Assets	₹ Crore	3986598	4238297	4249350	4244871	4265109	4233784	4253494
	US \$ Million	542615	569582	566077	568329	565565	567060	564832
1.2 Gold	₹ Crore	260239	300149	296461	293405	303427	309914	319800
	US \$ Million	35421	40337	39493	39283	40235	41509	42467
1.3 SDRs	Volume (Metric Tonnes)	687.85	755.42	755.42	757.28	757.62	757.62	757.96
	SDRs Million	1049	13657	13657	13657	13657	13657	13657
	₹ Crore	11145	142511	142706	142719	144590	143069	143381
1.4 Reserve Tranche Position in IMF	US \$ Million	1517	19152	19011	19108	19173	19162	19040
	₹ Crore	36529	38878	38780	39104	39312	39114	39051
	US \$ Million	5001	5216	5174	5233	5217	5221	5187

* Difference, if any, is due to rounding off.

No. 33: Non-Resident Deposits

(US\$ Million)

Scheme	Outstanding				Flows	
	2020-21	2021		2022	2020-21	2021-22
		Jan.	Dec.	Jan.	Apr.-Jan.	Apr.-Jan.
	1	2	3	4	5	6
1 NRI Deposits	141,895	141,623	141,908	140,485	8,003	2,720
1.1 FCNR(B)	20,473	21,506	18,154	18,089	-2,738	-2,384
1.2 NR(E)RA	102,579	101,981	102,916	101,543	9,017	2,440
1.3 NRO	18,842	18,136	20,838	20,852	1,724	2,664

No. 34: Foreign Investment Inflows

(US\$ Million)

Item	2020-21	2020-21	2021-22	2021		2022
		Apr.-Jan.	Apr.-Jan.	Jan.	Dec.	Jan.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1-1.1.2)	43955	42758	31515	1482	934	5905
1.1.1 Direct Investment to India (1.1.1.1- 1.1.2)	54927	51079	45017	1902	2249	6831
1.1.1.1 Gross Inflows/Gross Investments	81973	72839	69662	4545	6670	8913
1.1.1.1.1 Equity	61088	55371	50756	2836	4037	6517
1.1.1.1.1.1 Government (SIA/FIPB)	948	906	1620	585	25	45
1.1.1.1.1.2 RBI	51597	47427	35340	1789	3044	4694
1.1.1.1.1.3 Acquisition of shares	7091	5844	12602	332	842	1649
1.1.1.1.1.4 Equity capital of unincorporated bodies	1452	1194	1194	129	126	129
1.1.1.1.2 Reinvested earnings	16935	13923	14635	1506	1464	1506
1.1.1.1.3 Other capital	3950	3545	4271	202	1169	890
1.1.1.2 Repatriation/Disinvestment	27046	21760	24646	2643	4421	2082
1.1.1.2.1 Equity	26983	21720	23589	2631	4314	1586
1.1.1.2.2 Other capital	63	40	1057	11	107	496
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3-1.1.2.4)	10972	8321	13502	420	1315	925
1.1.2.1 Equity capital	5583	4655	7326	268	846	691
1.1.2.2 Reinvested Earnings	3013	2511	2567	251	251	251
1.1.2.3 Other Capital	6688	4325	6043	472	390	133
1.1.2.4 Repatriation/Disinvestment	4313	3170	2434	571	172	150
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3-1.2.4)	36137	35075	-6958	6218	-3613	-4919
1.2.1 GDRs/ADRs	-	-	-	-	-	-
1.2.2 FIIs	38725	37057	-4923	6522	-3275	-4186
1.2.3 Offshore funds and others	-	-	-	-	-	-
1.2.4 Portfolio investment by India	2589	1982	2035	303	338	733
1 Foreign Investment Inflows	80092	77833	24557	7700	-2680	987

No. 35: Outward Remittances under the Liberalised Remittance Scheme (LRS) for Resident Individuals

(US\$ Million)

Item	2020-21	2021			2022
		Jan.	Nov.	Dec.	Jan.
	1	2	3	4	5
1 Outward Remittances under the LRS	12684.40	1253.63	1547.41	1773.56	2018.31
1.1 Deposit	680.37	40.85	50.40	56.64	66.27
1.2 Purchase of immovable property	62.75	5.64	11.01	10.77	8.58
1.3 Investment in equity/debt	471.80	34.89	57.68	54.30	73.53
1.4 Gift	1586.24	134.16	206.21	214.59	200.23
1.5 Donations	12.59	0.67	0.94	2.69	1.53
1.6 Travel	3239.67	356.92	456.31	884.10	989.05
1.7 Maintenance of close relatives	2680.10	216.64	267.22	281.46	315.61
1.8 Medical Treatment	29.75	2.56	3.30	3.33	3.77
1.9 Studies Abroad	3836.12	455.51	482.35	253.69	345.76
1.10 Others	85.03	5.79	11.99	11.99	13.98

**No. 36: Indices of Nominal Effective Exchange Rate (NEER) and
Real Effective Exchange Rate (REER) of the Indian Rupee**

Item	2019-20	2020-21	2021	2022	
	1	2	February	January	February
			3	4	5
40-Currency Basket (Base: 2015-16=100)					
1 Trade-weighted					
1.1 NEER	98.00	93.92	94.24	94.53	93.74
1.2 REER	103.20	103.46	103.46	104.80	103.64
2 Export-weighted					
2.1 NEER	97.38	93.59	93.78	94.71	93.91
2.2 REER	102.88	102.96	103.06	104.31	103.16
6-Currency Basket (Trade-weighted)					
1 Base: 2015-16 = 100					
1.1 NEER	94.87	88.46	87.90	87.60	86.91
1.2 REER	103.56	101.87	101.18	103.17	102.36
2 Base: 2019-20 = 100					
2.1 NEER	100.00	93.24	92.66	92.33	91.61
2.2 REER	100.00	98.36	97.70	99.62	98.84

No. 37: External Commercial Borrowings (ECBs) – Registrations

(Amount in US\$ Million)

Item	2020-21	2021		2022
		Jan	Dec	Jan
	1	2	3	4
1 Automatic Route				
1.1 Number	1063	95	139	81
1.2 Amount	26799	3744	4374	3879
2 Approval Route				
2.1 Number	13	0	1	4
2.2 Amount	8456	0	1175	4100
3 Total (1+2)				
3.1 Number	1076	95	140	85
3.2 Amount	35255	3744	5549	7979
4 Weighted Average Maturity (in years)	6.03	7.50	5.30	15.18
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	1.93	2.74	1.01	1.81
5.2 Interest rate range for Fixed Rate Loans	0.00-13.00	0.00-10.25	0.00-10.25	0.00-11.20
Borrower Category				
I. Corporate Manufacturing	12827	468	442	5783
II. Corporate-Infrastructure	9985	872	2584	843
a.) Transport	636	0	109	0
b.) Energy	2713	71	959	708
c.) Water and Sanitation	151	0	0	5
d.) Communication	757	0	5	0
e.) Social and Commercial Infrastructure	1761	0	0	0
f.) Exploration, Mining and Refinery	1346	0	1100	130
g.) Other Sub-Sectors	2622	801	411	0
III. Corporate Service-Sector	1894	109	291	34
IV. Other Entities	1026	1000	500	0
a.) units in SEZ	26	0	0	0
b.) SIDBI	0			
c.) Exim Bank	1000	1000	500	0
V. Banks	0	0	0	0
VI. Financial Institution (Other than NBFC)	2110	0	0	0
VII. NBFCs	6934	1252	1690	1315
a.) NBFC- IFC/AFC	6024	1250	1275	1225
b.) NBFC-MFI	84	0	17	0
c.) NBFC-Others	827	2	398	90
VIII. Non-Government Organization (NGO)	0	0	0	0
IX. Micro Finance Institution (MFI)	8	0	0	0
X. Others	470	43	42	4

No. 38: India's Overall Balance of Payments

(US \$ Million)

Item	Jul-Sep 2020			Jul-Sep 2021(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	296176	264608	31568	404597	373408	31189
1 CURRENT ACCOUNT (1.1+ 1.2)	150791	135541	15250	194275	203886	-9611
1.1 MERCHANDISE	75591	90407	-14816	104842	149265	-44423
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	75200	45134	30066	89434	54621	34813
1.2.1 Services	49793	28707	21086	61421	35836	25585
1.2.1.1 Travel	2138	2764	-626	2147	3919	-1772
1.2.1.2 Transportation	5368	4759	609	7584	8181	-597
1.2.1.3 Insurance	590	537	53	796	575	220
1.2.1.4 G.n.i.e.	144	190	-46	217	198	19
1.2.1.5 Miscellaneous	41554	20458	21096	50678	22962	27716
1.2.1.5.1 Software Services	24791	2769	22021	29965	3184	26781
1.2.1.5.2 Business Services	11624	12354	-730	13858	12457	1401
1.2.1.5.3 Financial Services	1003	1107	-104	1303	1463	-160
1.2.1.5.4 Communication Services	661	355	306	766	275	491
1.2.2 Transfers	20421	2035	18386	21154	2239	18915
1.2.2.1 Official	36	270	-233	18	315	-297
1.2.2.2 Private	20385	1766	18619	21135	1924	19212
1.2.3 Income	4986	14391	-9405	6859	16546	-9688
1.2.3.1 Investment Income	3541	13695	-10154	5362	15792	-10430
1.2.3.2 Compensation of Employees	1445	696	749	1497	754	743
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	145010	129067	15943	209579	169522	40057
2.1 Foreign Investment (2.1.1+2.1.2)	97296	65874	31422	132378	119040	13338
2.1.1 Foreign Direct Investment	30502	6077	24424	20447	10987	9461
2.1.1.1 In India	29527	2450	27078	19281	6475	12806
2.1.1.1.1 Equity	23794	2445	21350	13940	6259	7681
2.1.1.1.2 Reinvested Earnings	4117		4117	4482	0	4482
2.1.1.1.3 Other Capital	1617	5	1611	859	216	643
2.1.1.2 Abroad	974	3627	-2653	1167	4512	-3345
2.1.1.2.1 Equity	974	1202	-228	1167	2060	-894
2.1.1.2.2 Reinvested Earnings	0	753	-753	0	781	-781
2.1.1.2.3 Other Capital	0	1672	-1672	0	1670	-1670
2.1.2 Portfolio Investment	66794	59796	6998	111931	108054	3877
2.1.2.1 In India	66420	58684	7736	110448	105904	4544
2.1.2.1.1 FIIs	66420	58684	7736	110448	105904	4544
2.1.2.1.1.1 Equity	55007	48183	6824	95335	94718	618
2.1.2.1.1.2 Debt	11413	10501	912	15112	11186	3926
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	375	1113	-738	1483	2150	-666
2.2 Loans (2.2.1+2.2.2+2.2.3)	20645	24532	-3887	25555	17965	7590
2.2.1 External Assistance	3209	1323	1886	2420	1303	1117
2.2.1.1 By India	10	21	-11	14	30	-15
2.2.1.2 To India	3199	1302	1897	2406	1273	1132
2.2.2 Commercial Borrowings	8775	12731	-3956	9114	5004	4110
2.2.2.1 By India	769	1005	-235	282	249	33
2.2.2.2 To India	8005	11726	-3721	8832	4755	4077
2.2.3 Short Term to India	8662	10479	-1817	14021	11658	2364
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	8662	9770	-1108	9615	11658	-2043
2.2.3.2 Suppliers' Credit up to 180 days	0	709	-709	4407	0	4407
2.3 Banking Capital (2.3.1+2.3.2)	18762	30025	-11263	20817	20457	360
2.3.1 Commercial Banks	18749	30025	-11276	20473	20457	17
2.3.1.1 Assets	7207	16747	-9539	10097	9858	239
2.3.1.2 Liabilities	11541	13279	-1737	10376	10598	-222
2.3.1.2.1 Non-Resident Deposits	10311	8377	1934	8574	9357	-783
2.3.2 Others	13	0	13	344	0	344
2.4 Rupee Debt Service	0	2	-2	0	2	-2
2.5 Other Capital	8307	8633	-327	30829	12059	18770
3 Errors & Omissions	375		375	742	0	742
4 Monetary Movements (4.1+ 4.2)	0	31568	-31568	0	31189	-31189
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)		31568	-31568	0	31189	-31189

Note : P : Preliminary

No. 39: India's Overall Balance of Payments

(₹ Crore)

Item	Jul-Sep 2020			Jul-Sep 2021(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	2203029	1968215	234814	2997726	2766643	231083
1 CURRENT ACCOUNT (1.1+ 1.2)	1121622	1008187	113435	1439417	1510625	-71208
1.1 MERCHANDISE	562264	672468	-110205	776788	1105928	-329140
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	559358	335719	223639	662629	404696	257932
1.2.1 Services	370373	213533	156840	455079	265514	189566
1.2.1.1 Travel	15903	20559	-4657	15905	29037	-13132
1.2.1.2 Transportation	39926	35397	4528	56188	60613	-4425
1.2.1.3 Insurance	4385	3994	391	5896	4263	1633
1.2.1.4 G.n.i.e.	1074	1414	-339	1607	1467	141
1.2.1.5 Miscellaneous	309085	152168	156917	375483	170133	205350
1.2.1.5.1 Software Services	184399	20598	163801	222016	23589	198426
1.2.1.5.2 Business Services	86464	91890	-5426	102675	92295	10380
1.2.1.5.3 Financial Services	7462	8233	-771	9652	10836	-1184
1.2.1.5.4 Communication Services	4914	2638	2275	5676	2035	3641
1.2.2 Transfers	151896	15140	136756	156732	16588	140144
1.2.2.1 Official	269	2006	-1737	137	2334	-2198
1.2.2.2 Private	151627	13134	138492	156596	14254	142342
1.2.3 Income	37089	107046	-69956	50817	122594	-71777
1.2.3.1 Investment Income	26339	101868	-75528	39725	117005	-77280
1.2.3.2 Compensation of Employees	10750	5178	5572	11092	5589	5503
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	1078616	960028	118588	1552809	1256019	296790
2.1 Foreign Investment (2.1.1+2.1.2)	723708	489983	233725	980814	881990	98824
2.1.1 Foreign Direct Investment	226877	45202	181675	151499	81403	70095
2.1.1.1 In India	219632	18223	201410	142854	47973	94880
2.1.1.1.1 Equity	176987	18184	158803	103281	46371	56909
2.1.1.1.2 Reinvested Earnings	30620	0	30620	33210	0	33210
2.1.1.1.3 Other Capital	12025	39	11987	6364	1602	4761
2.1.1.2 Abroad	7245	26980	-19735	8645	33430	-24785
2.1.1.2.1 Equity	7245	8940	-1695	8645	15265	-6620
2.1.1.2.2 Reinvested Earnings	0	5603	-5603	0	5789	-5789
2.1.1.2.3 Other Capital	0	12437	-12437	0	12375	-12375
2.1.2 Portfolio Investment	496831	444780	52050	829315	800587	28729
2.1.2.1 In India	494044	436504	57540	818325	784660	33664
2.1.2.1.1 FIIs	494044	436504	57540	818325	784660	33664
2.1.2.1.1.1 Equity	409153	358396	50757	706356	701779	4577
2.1.2.1.1.2 Debt	84891	78108	6783	111968	82881	29087
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	2786	8276	-5490	10991	15927	-4936
2.2 Loans (2.2.1+2.2.2+2.2.3)	153564	182478	-28914	189343	133104	56239
2.2.1 External Assistance	23866	9840	14026	17930	9654	8276
2.2.1.1 By India	71	153	-82	106	220	-114
2.2.1.2 To India	23795	9687	14108	17824	9434	8390
2.2.2 Commercial Borrowings	65268	94694	-29426	67525	37075	30451
2.2.2.1 By India	5722	7473	-1751	2087	1844	242
2.2.2.2 To India	59545	87221	-27675	65439	35231	30208
2.2.3 Short Term to India	64430	77945	-13515	103887	86375	17512
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	64430	72671	-8241	71239	86375	-15136
2.2.3.2 Suppliers' Credit up to 180 days	0	5273	-5273	32649	0	32649
2.3 Banking Capital (2.3.1+2.3.2)	139558	223336	-83778	154236	151566	2670
2.3.1 Commercial Banks	139459	223336	-83877	151690	151566	124
2.3.1.1 Assets	53611	124564	-70953	74810	73041	1769
2.3.1.2 Liabilities	85848	98771	-12923	76881	78525	-1645
2.3.1.2.1 Non-Resident Deposits	76699	62311	14387	63530	69328	-5798
2.3.2 Others	99	0	99	2545	0	2545
2.4 Rupee Debt Service	0	15	-15	0	15	-15
2.5 Other Capital	61787	64217	-2430	228416	89344	139073
3 Errors & Omissions	2791	0	2791	5500	0	5500
4 Monetary Movements (4.1+ 4.2)	0	234814	-234814	0	231083	-231083
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	234814	-234814	0	231083	-231083

Note : P: Preliminary

No. 40: Standard Presentation of BoP in India as per BPM6

(US \$ Million)

Item	Jul-Sep 2020			Jul-Sep 2021(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	150790	135515	15275	194275	203856	-9581
1.A Goods and Services (1.A.a+1.A.b)	125384	119114	6270	166263	185101	-18838
1.A.a Goods (1.A.a.1 to 1.A.a.3)	75591	90407	-14816	104842	149265	-44423
1.A.a.1 General merchandise on a BOP basis	75243	84319	-9076	104327	133243	-28916
1.A.a.2 Net exports of goods under merchandising	348	0	348	515	0	515
1.A.a.3 Nonmonetary gold		6088	-6088		16022	-16022
1.A.b Services (1.A.b.1 to 1.A.b.13)	49793	28707	21086	61421	35836	25585
1.A.b.1 Manufacturing services on physical inputs owned by others	68	11	56	75	16	59
1.A.b.2 Maintenance and repair services n.i.e.	35	204	-169	74	418	-345
1.A.b.3 Transport	5368	4759	609	7584	8181	-597
1.A.b.4 Travel	2138	2764	-626	2147	3919	-1772
1.A.b.5 Construction	589	563	26	716	715	0
1.A.b.6 Insurance and pension services	590	537	53	796	575	220
1.A.b.7 Financial services	1003	1107	-104	1303	1463	-160
1.A.b.8 Charges for the use of intellectual property n.i.e.	313	1456	-1143	202	2189	-1987
1.A.b.9 Telecommunications, computer, and information services	25515	3290	22225	30823	3651	27172
1.A.b.10 Other business services	11624	12354	-730	13858	12457	1401
1.A.b.11 Personal, cultural, and recreational services	530	817	-287	713	1243	-530
1.A.b.12 Government goods and services n.i.e.	144	190	-46	217	198	19
1.A.b.13 Others n.i.e.	1875	655	1220	2915	811	2105
1.B Primary Income (1.B.1 to 1.B.3)	4986	14391	-9405	6859	16546	-9688
1.B.1 Compensation of employees	1445	696	749	1497	754	743
1.B.2 Investment income	2753	13394	-10641	4349	15572	-11223
1.B.2.1 Direct investment	1272	8131	-6859	1983	9630	-7647
1.B.2.2 Portfolio investment	49	2126	-2076	111	2859	-2748
1.B.2.3 Other investment	78	3137	-3059	62	3082	-3020
1.B.2.4 Reserve assets	1354	1	1353	2193	1	2193
1.B.3 Other primary income	788	301	487	1012	220	792
1.C Secondary Income (1.C.1+1.C.2)	20419	2009	18410	21153	2209	18944
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	20385	1766	18619	21135	1924	19212
1.C.1.1 Personal transfers (Current transfers between resident and non-resident households)	19711	1287	18424	20237	1356	18881
1.C.1.2 Other current transfers	674	479	195	899	568	331
1.C.2 General government	35	243	-209	18	285	-267
2 Capital Account (2.1+2.2)	109	198	-88	189	210	-20
2.1 Gross acquisitions (DR.) / disposals (CR.) of non-produced nonfinancial assets	8	100	-92	62	132	-71
2.2 Capital transfers	101	97	4	128	77	50
3 Financial Account (3.1 to 3.5)	144902	160464	-15562	209391	200531	8859
3.1 Direct Investment (3.1A+3.1B)	30502	6077	24424	20447	10987	9461
3.1.A Direct Investment in India	29527	2450	27078	19281	6475	12806
3.1.A.1 Equity and investment fund shares	27911	2445	25466	18422	6259	12163
3.1.A.1.1 Equity other than reinvestment of earnings	23794	2445	21350	13940	6259	7681
3.1.A.1.2 Reinvestment of earnings	4117		4117	4482		4482
3.1.A.2 Debt instruments	1617	5	1611	859	216	643
3.1.A.2.1 Direct investor in direct investment enterprises	1617	5	1611	859	216	643
3.1.B Direct Investment by India	974	3627	-2653	1167	4512	-3345
3.1.B.1 Equity and investment fund shares	974	1955	-981	1167	2842	-1675
3.1.B.1.1 Equity other than reinvestment of earnings	974	1202	-228	1167	2060	-894
3.1.B.1.2 Reinvestment of earnings		753	-753		781	-781
3.1.B.2 Debt instruments	0	1672	-1672		1670	-1670
3.1.B.2.1 Direct investor in direct investment enterprises		1672	-1672		1670	-1670
3.2 Portfolio Investment	66794	59796	6998	111931	108054	3877
3.2.A Portfolio Investment in India	66420	58684	7736	110448	105904	4544
3.2.1 Equity and investment fund shares	55007	48183	6824	95335	94718	618
3.2.2 Debt securities	11413	10501	912	15112	11186	3926
3.2.B Portfolio Investment by India	375	1113	-738	1483	2150	-666
3.3 Financial derivatives (other than reserves) and employee stock options	2858	3936	-1078	5367	5806	-439
3.4 Other investment	44749	59086	-14337	71646	44496	27150
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	10325	8377	1948	8918	9357	-439
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	13	0	13	344	0	344
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	10311	8377	1934	8574	9357	-783
3.4.2.3 General government			0			
3.4.2.4 Other sectors			0			
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	20421	35702	-15281	23433	17406	6026
3.4.3.A Loans to India	19642	34677	-15035	23137	17128	6009
3.4.3.B Loans by India	779	1025	-246	296	279	17
3.4.4 Insurance, pension, and standardized guarantee schemes	78	62	16	55	13	42
3.4.5 Trade credit and advances	8662	10479	-1817	14021	11658	2364
3.4.6 Other accounts receivable/payable - other	5263	4466	797	7356	6062	1295
3.4.7 Special drawing rights			0	17862		17862
3.5 Reserve assets	0	31568	-31568	0	31189	-31189
3.5.1 Monetary gold			0			
3.5.2 Special drawing rights n.a.			0		17862	-17862
3.5.3 Reserve position in the IMF n.a.			0			
3.5.4 Other reserve assets (Foreign Currency Assets)	0	31568	-31568	0	13326	-13326
4 Total assets/liabilities	144902	160464	-15562	209391	200531	8859
4.1 Equity and investment fund shares	87202	57694	29508	121829	111787	10042
4.2 Debt instruments	52437	66736	-14299	62343	51494	10849
4.3 Other financial assets and liabilities	5263	36034	-30771	25219	37251	-12032
5 Net errors and omissions	375		375	742		742

No. 41: Standard Presentation of BoP in India as per BPM6

(₹ Crore)

Item	Jul-Sep 2020			Jul-Sep 2021(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	1121609	1007991	113618	1439413	1510403	-70990
1.A Goods and Services (1.A.a+1.A.b)	932637	886001	46635	1231868	1371442	-139574
1.A.a Goods (1.A.a.1 to 1.A.a.3)	562264	672468	-110205	776788	1105928	-329140
1.A.a.1 General merchandise on a BOP basis	559675	627181	-67506	772976	987218	-214242
1.A.a.2 Net exports of goods under merchanting	2588	0	2588	3812	0	3812
1.A.a.3 Nonmonetary gold	0	45287	-45287	0	118711	-118711
1.A.b Services (1.A.b.1 to 1.A.b.13)	370373	213533	156840	455079	265514	189566
1.A.b.1 Manufacturing services on physical inputs owned by others	505	85	420	558	118	440
1.A.b.2 Maintenance and repair services n.i.e.	263	1519	-1256	546	3100	-2554
1.A.b.3 Transport	39926	35397	4528	56188	60613	-4425
1.A.b.4 Travel	15903	20559	-4657	15905	29037	-13132
1.A.b.5 Construction	4383	4186	197	5302	5299	3
1.A.b.6 Insurance and pension services	4385	3994	391	5896	4263	1633
1.A.b.7 Financial services	7462	8233	-771	9652	10836	-1184
1.A.b.8 Charges for the use of intellectual property n.i.e.	2330	10833	-8503	1499	16220	-14721
1.A.b.9 Telecommunications, computer, and information services	189787	24472	165315	228370	27051	201318
1.A.b.10 Other business services	86464	91890	-5426	102675	92295	10380
1.A.b.11 Personal, cultural, and recreational services	3944	6078	-2135	5279	9207	-3928
1.A.b.12 Government goods and services n.i.e.	1074	1414	-339	1607	1467	141
1.A.b.13 Others n.i.e.	13948	4871	9077	21601	6006	15595
1.B Primary Income (1.B.1 to 1.B.3)	37089	107046	-69956	50817	122594	-71777
1.B.1 Compensation of employees	10750	5178	5572	11092	5589	5503
1.B.2 Investment income	20478	99630	-79152	32225	115376	-83151
1.B.2.1 Direct investment	9463	60481	-51018	14692	71350	-56658
1.B.2.2 Portfolio investment	366	15810	-15445	820	21184	-20364
1.B.2.3 Other investment	579	23331	-22752	461	22836	-22375
1.B.2.4 Reserve assets	10070	7	10063	16251	5	16246
1.B.3 Other primary income	5861	2238	3623	7500	1629	5871
1.C Secondary Income (1.C.1+1.C.2)	151883	14944	136939	156729	16367	140361
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	151627	13134	138492	156596	14254	142342
1.C.1.1 Personal transfers (Current transfers between resident and non-resident households)	146616	9573	137043	149936	10045	139891
1.C.1.2 Other current transfers	5011	3561	1450	6659	4209	2451
1.C.2 General government	257	1810	-1553	133	2113	-1980
2 Capital Account (2.1+2.2)	813	1471	-658	1402	1553	-151
2.1 Gross acquisitions (DR)/disposals (CR.) of non-produced nonfinancial assets	62	747	-685	457	981	-524
2.2 Capital transfers	751	725	27	946	572	374
3 Financial Account (3.1 to 3.5)	1077815	1193566	-115751	1551410	1485770	65641
3.1 Direct Investment (3.1A+3.1B)	226877	45202	181675	151499	81403	70095
3.1.A Direct Investment in India	219632	18223	201410	142854	47973	94880
3.1.A.1 Equity and investment fund shares	207607	18184	189423	136490	46371	90119
3.1.A.1.1 Equity other than reinvestment of earnings	176987	18184	158803	103281	46371	56909
3.1.A.1.2 Reinvestment of earnings	30620	0	30620	33210	0	33210
3.1.A.2 Debt instruments	12025	39	11987	6364	1602	4761
3.1.A.2.1 Direct investor in direct investment enterprises	12025	39	11987	6364	1602	4761
3.1.B Direct Investment by India	7245	26980	-19735	8645	33430	-24785
3.1.B.1 Equity and investment fund shares	7245	14543	-7298	8645	21055	-12410
3.1.B.1.1 Equity other than reinvestment of earnings	7245	8940	-1695	8645	15265	-6620
3.1.B.1.2 Reinvestment of earnings	0	5603	-5603	0	5789	-5789
3.1.B.2 Debt instruments	0	12437	-12437	0	12375	-12375
3.1.B.2.1 Direct investor in direct investment enterprises	0	12437	-12437	0	12375	-12375
3.2 Portfolio Investment	496831	444780	52050	829315	800587	28729
3.2.A Portfolio Investment in India	494044	436504	57540	818325	784660	33664
3.2.1 Equity and investment fund shares	409153	358396	50757	706356	701779	4577
3.2.2 Debt securities	84891	78108	6783	111968	82881	29087
3.2.B Portfolio Investment by India	2786	8276	-5490	10991	15927	-4936
3.3 Financial derivatives (other than reserves) and employee stock options	21257	29276	-8019	39762	43017	-3256
3.4 Other investment	332850	439493	-106643	530835	329679	201155
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	76798	62311	14486	66075	69328	-3253
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	99	0	99	2545	0	2545
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	76699	62311	14387	63530	69328	-5798
3.4.2.3 General government	0	0	0	0	0	0
3.4.2.4 Other sectors	0	0	0	0	0	0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	151894	265558	-113664	173616	128967	44649
3.4.3.A Loans to India	146100	257932	-111832	171423	126903	44520
3.4.3.B Loans by India	5793	7626	-1833	2193	2064	128
3.4.4 Insurance, pension, and standardized guarantee schemes	580	462	117	405	97	308
3.4.5 Trade credit and advances	64430	77945	-13515	103887	86375	17512
3.4.6 Other accounts receivable/payable - other	39149	33218	5932	54505	44912	9592
3.4.7 Special drawing rights	0	0	0	132346	0	132346
3.5 Reserve assets	0	234814	-234814	0	231083	-231083
3.5.1 Monetary gold	0	0	0	0	0	0
3.5.2 Special drawing rights n.a.	0	0	0	0	132346	-132346
3.5.3 Reserve position in the IMF n.a.	0	0	0	0	0	0
3.5.4 Other reserve assets (Foreign Currency Assets)	0	234814	-234814	0	98737	-98737
4 Total assets/liabilities	1077815	1193566	-115751	1551410	1485770	65641
4.1 Equity and investment fund shares	648628	429138	219490	902649	828246	74403
4.2 Debt instruments	390038	496397	-106359	461910	381529	80382
4.3 Other financial assets and liabilities	39149	268031	-228882	186851	275995	-89145
5 Net errors and omissions	2791	0	2791	5500	0	5500

Note : P: Preliminary

No. 42: International Investment Position

(US\$ Million)

Item	As on Financial Year /Quarter End							
	2020-21		2020		2021			
			Sep.		Jun.		Sep.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
1	2	3	4	5	6	7	8	
1 Direct Investment Abroad/in India	193929	482226	188243	455981	199440	493763	202785	506723
1.1 Equity Capital and Reinvested Earnings	122726	456947	121267	430714	125397	467990	127072	480697
1.2 Other Capital	71203	25278	66976	25267	74043	25773	75713	26026
2 Portfolio Investment	7936	274104	5041	244308	7912	272859	8578	276375
2.1 Equity	2340	177278	1906	149095	3146	176203	4590	177034
2.2 Debt	5596	96826	3136	95213	4766	96657	3988	99341
3 Other Investment	80606	454253	64785	440252	76828	455000	80317	475775
3.1 Trade Credit	5644	100337	2792	102187	7875	102117	11879	100267
3.2 Loan	13335	197773	9038	189705	13622	197443	10131	201213
3.3 Currency and Deposits	42436	143760	34864	138822	35904	143096	41102	142904
3.4 Other Assets/Liabilities	19191	12384	18092	9538	19427	12344	17205	31391
4 Reserves	576984		544687		611075		635363	
5 Total Assets/ Liabilities	859454	1210583	802757	1140541	895254	1221622	927043	1258873
6 IIP (Assets - Liabilities)		-351129		-337784		-326368		-331830

Payment and Settlement Systems

No.43: Payment System Indicators

PART I - Payment System Indicators - Payment & Settlement System Statistics

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2020-21	2021		2022	FY 2020-21	2021		2022
		Jan.	Dec.	Jan.		Jan.	Dec.	Jan.
	1	2	3	4	5	6	7	8
A. Settlement Systems								
Financial Market Infrastructures (FMIs)								
1 CCIL Operated Systems (1.1 to 1.3)	27.97	2.32	3.13	2.54	161943141	15723500	20703988	17839802
1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)	11.55	0.93	1.10	0.93	110634315	10875915	14801512	12892869
1.1.1 Outright	6.28	0.48	0.48	0.40	10032187	657843	651103	569722
1.1.2 Repo	2.84	0.22	0.30	0.26	43751173	3848935	5075401	4348558
1.1.3 Tri-party Repo	2.43	0.24	0.31	0.28	56850956	6369137	9075009	7974589
1.2 Forex Clearing	16.04	1.35	1.96	1.52	48903961	4576570	5516604	4470518
1.3 Rupee Derivatives @	0.38	0.04	0.07	0.09	2404865	271015	385873	476415
B. Payment Systems								
I Financial Market Infrastructures (FMIs)	—	—	—	—	—	—	—	—
1 Credit Transfers - RTGS (1.1 to 1.2)	1591.92	156.68	192.78	181.29	105599849	9170162	12966991	10449109
1.1 Customer Transactions	1573.47	155.07	191.50	180.08	91008367	7854553	11418233	9285159
1.2 Interbank Transactions	18.45	1.61	1.29	1.21	14591482	1315609	1548758	1163950
II Retail								
2 Credit Transfers - Retail (2.1 to 2.6)	317867.74	31708.24	56422.79	57362.63	33504226	2990835	4076395	3803991
2.1 AePS (Fund Transfers) @	11.31	1.09	0.65	0.55	623	65	36	29
2.2 APBS \$	14372.99	1224.28	1082.20	1106.32	111001	8500	14987	18048
2.3 IMPS	32783.47	3465.52	4429.86	4401.73	2941500	288538	396411	387007
2.4 NACH Cr \$	16465.44	1115.13	1483.71	2053.44	1216535	96681	113132	124228
2.5 NEFT	30927.89	2874.93	3763.38	3629.03	25130910	2165869	2724980	2442686
2.6 UPI @	223306.64	23027.28	45662.99	46171.56	4103658	431182	826848	831993
2.6.1 of which USSD @	10.45	0.92	1.12	0.81	172	15	16	11
3 Debit Transfers and Direct Debits (3.1 to 3.3)	10456.54	928.08	1064.54	1059.01	865520	79372	91163	91554
3.1 BHIM Aadhaar Pay @	160.84	10.29	19.59	24.47	2580	214	611	728
3.2 NACH Dr \$	9645.75	839.08	937.92	934.07	862027	79044	90426	90703
3.3 NETC (linked to bank account) @	649.96	78.71	107.03	100.47	913	113	126	123
4 Card Payments (4.1 to 4.2)	57786.60	5443.74	5611.80	5151.05	1291799	127894	160398	147794
4.1 Credit Cards (4.1.1 to 4.1.2)	17641.06	1744.20	2112.59	1958.05	630414	64737	93907	87769
4.1.1 PoS based \$	8688.81	926.09	1093.48	960.63	280769	29409	36713	32735
4.1.2 Others \$	8952.25	818.11	1019.10	997.43	349645	35328	57195	55034
4.2 Debit Cards (4.2.1 to 4.2.1)	40145.54	3699.54	3589.21	3193.00	661385	63157	67591	60025
4.2.1 PoS based \$	20773.50	2132.37	2292.51	1924.51	377630	39189	44162	37274
4.2.2 Others \$	19372.04	1567.18	1296.71	1268.48	283755	23969	23429	22752
5 Prepaid Payment Instruments (5.1 to 5.2)	49742.55	4427.00	7008.24	5865.60	197696	19419	26896	26105
5.1 Wallets	39987.01	3499.66	5661.02	4613.76	152065	13577	21220	19789
5.2 Cards (5.2.1 to 5.2.2)	9755.54	927.34	1347.22	1251.85	45631	5842	5676	6316
5.2.1 PoS based \$	607.15	61.52	99.63	114.11	10591	1433	1893	2307
5.2.2 Others \$	9148.39	865.83	1247.59	1137.73	35040	4410	3784	4009
6 Paper-based Instruments (6.1 to 6.2)	6703.70	657.01	660.33	596.99	5627190	551207	640955	557721
6.1 CTS (NPCI Managed)	6702.54	657.01	660.33	596.99	5625941	551207	640955	557721
6.2 Others	1.17	—	—	—	1249	—	—	—
Total - Retail Payments (2+3+4+5+6)	442557.14	43164.07	70767.70	70035.28	41486430	3768727	4995808	4627165
Total Payments (1+2+3+4+5+6)	444149.06	43320.75	70960.48	70216.58	147086278	12938889	17962798	15076275
Total Digital Payments (1+2+3+4+5)	437445.36	42663.74	70300.15	69619.59	141459089	12387683	17321843	14518553

PART II - Payment Modes and Channels

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2020-21	2021		2022	FY 2020-21	2021		2022
		Jan.	Dec.	Jan.		Jan.	Dec.	Jan.
	1	2	3	4	5	6	7	8
A. Other Payment Channels								
1 Mobile Payments (mobile app based) (1.1 to 1.2)	258033.70	27644.30	49877.80	50122.59	9201212	1020313	1433961	1422869
1.1 Intra-bank \$	25220.71	2571.61	3927.19	3879.91	1871390	212336	254443	250455
1.2 Inter-bank \$	232812.99	25072.69	45950.61	46242.68	7329822	807977	1179518	1172414
2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)	32493.63	3084.98	3117.10	3091.31	41581497	4158234	4531114	4008361
2.1 Intra-bank @	6886.15	617.29	611.14	598.61	20601554	2184556	2082236	1723484
2.2 Inter-bank @	25607.48	2467.69	2505.96	2492.69	20979943	1973678	2448878	2284877
B. ATMs								
3 Cash Withdrawal at ATMs \$ (3.1 to 3.3)	60905.81	5734.25	5928.20	5562.33	2889826	267500	280372	262539
3.1 Using Credit Cards \$	51.41	5.04	5.90	5.49	2560	251	295	269
3.2 Using Debit Cards \$	60602.23	5704.78	5893.54	5527.49	2878025	266315	279100	261279
3.3 Using Pre-paid Cards \$	252.17	24.43	28.76	29.36	9240	934	977	990
4 Cash Withdrawal at PoS \$ (4.1 to 4.2)	394.77	32.47	3.89	2.36	1533	137	42	35
4.1 Using Debit Cards \$	353.50	30.62	3.71	2.08	1484	135	35	20
4.2 Using Pre-paid Cards \$	41.27	1.84	0.18	0.28	49	2	7	16
5 Cash Withdrawal at Micro ATMs @	9460.43	777.16	940.20	1125.54	225420	21700	25208	28582
5.1 AePS @	9460.43	777.16	940.20	1125.54	225420	21700	25208	28582

PART III - Payment Infrastructures (Lakh)

System	As on March 2021	2021		2022
		Jan.	Dec.	Jan.
	1	2	3	4
Payment System Infrastructures				
1 Number of Cards (1.1 to 1.2)	9602.51	9491.63	10066.90	10111.81
1.1 Credit Cards	620.49	610.98	689.49	702.52
1.2 Debit Cards	8982.02	8880.65	9377.42	9409.29
2 Number of PPIs @ (2.1 to 2.2)	21952.60	21212.16	26426.15	26898.31
2.1 Wallets @	20052.10	19461.26	23828.54	24231.94
2.2 Cards @	1900.51	1750.90	2597.62	2666.37
3 Number of ATMs (3.1 to 3.2)	2.39	2.34	2.49	2.51
3.1 Bank owned ATMs \$	2.14	2.09	2.19	2.21
3.2 White Label ATMs \$	0.25	0.25	0.30	0.30
4 Number of Micro ATMs @	4.04	3.73	5.91	6.46
5 Number of PoS Terminals	47.20	46.55	54.98	56.20
6 Bharat QR @	35.70	33.60	46.47	46.97
7 UPI QR *	925.22	805.89	1440.10	1521.05

@: New inclusion w.e.f. November 2019

#: Data reported by Co-operative Banks, LABs and RRBs included with effect from December 2021.

\$: Inclusion separately initiated from November 2019 - would have been part of other items hitherto.

*: New inclusion w.e.f. September 2020; Includes only static UPI QR Code

- Note :**
1. Data is provisional.
 2. ECS (Debit and Credit) has been merged with NACH with effect from January 31, 2020.
 3. The data from November 2019 onwards for card payments (Debit/Credit cards) and Prepaid Payment Instruments (PPIs) may not be comparable with earlier months/ periods, as more granular data is being published along with revision in data definitions.
 4. Only domestic financial transactions are considered. The new format captures e-commerce transactions; transactions using FASTags, digital bill payments and card-to-card transfer through ATMs, etc.. Also, failed transactions, chargebacks, reversals, expired cards/ wallets, are excluded.

Occasional Series

No. 44: Small Savings

(₹ Crore)

Scheme		2019-20	2020		2021	
			Feb.	Dec.	Jan.	Feb.
		1	2	3	4	5
1 Small Savings	Receipts	159573	16911	16781	14261	14405
	Outstanding	1078535	1046766	1196084	1210379	1224772
1.1 Total Deposits	Receipts	116389	11460	12407	9820	10143
	Outstanding	734807	716363	827156	836976	847119
1.1.1 Post Office Saving Bank Deposits	Receipts	25893	2690	3307	2049	2252
	Outstanding	166140	156258	190437	192486	194738
1.1.2 MGNREG	Receipts					
	Outstanding					
1.1.3 National Saving Scheme, 1987	Receipts	36	-20	-21	-26	-23
	Outstanding	3143	2939	3086	3060	3037
1.1.4 National Saving Scheme, 1992	Receipts	-1	-3	-3	0	57
	Outstanding	9	-23	-17	-17	40
1.1.5 Monthly Income Scheme	Receipts	16510	1887	1053	1162	1135
	Outstanding	209168	207059	217980	219142	220277
1.1.6 Senior Citizen Scheme 2004	Receipts	20334	2131	2014	1886	1950
	Outstanding	76042	73728	90914	92800	94750
1.1.7 Post Office Time Deposits	Receipts	41795	4494	4330	3952	3798
	Outstanding	166087	161115	195847	199799	203597
1.1.7.1 1 year Time Deposits	Outstanding	92618	90327	104601	105928	107099
1.1.7.2 2 year Time Deposits	Outstanding	7097	6970	7324	7375	7418
1.1.7.3 3 year Time Deposits	Outstanding	7536	7464	7330	7285	7267
1.1.7.4 5 year Time Deposits	Outstanding	58836	56354	76592	79211	81813
1.1.8 Post Office Recurring Deposits	Receipts	11821	281	1727	797	974
	Outstanding	114222	115291	128912	129709	130683
1.1.9 Post Office Cumulative Time Deposits	Receipts	1	0	0	0	0
	Outstanding	-25	-25	-24	-24	-24
1.1.10 Other Deposits	Receipts	0	0	0	0	0
	Outstanding	21	21	21	21	21
1.2 Saving Certificates	Receipts	30170	3937	3941	3909	3647
	Outstanding	252190	248022	274905	278848	282483
1.2.1 National Savings Certificate VIII issue	Receipts	19495	2619	1923	1903	1843
	Outstanding	117987	115127	129270	131173	133016
1.2.2 Indira Vikas Patras	Receipts	-101	1	-1	-1	0
	Outstanding	162	-288	158	157	157
1.2.3 Kisan Vikas Patras	Receipts	-18168	-1120	-669	-603	-470
	Outstanding	1135	3949	-5121	-5724	-6194
1.2.4 Kisan Vikas Patras - 2014	Receipts	28972	2452	2677	2610	2274
	Outstanding	122602	118507	140538	143148	145422
1.2.5 National Saving Certificate VI issue	Receipts	-4	0	8	0	0
	Outstanding	-155	-180	-147	-147	-147
1.2.6 National Saving Certificate VII issue	Receipts	-24	-15	3	0	0
	Outstanding	-106	-99	-103	-103	-103
1.2.7 Other Certificates	Outstanding	10565	11006	10310	10344	10332
1.3 Public Provident Fund	Receipts	13014	1514	433	532	615
	Outstanding	91538	82381	94023	94555	95170

Note : Data on receipts from April 2017 are net receipts, i.e., gross receipt minus gross payment.

Source: Accountant General, Post and Telegraphs.

No. 45 : Ownership Pattern of Central and State Governments Securities

(Per cent)

Central Government Dated Securities					
Category	2020	2021			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(A) Total (in ₹. Crore)	7357111	7635902	7882533	8235318	8439811
1 Commercial Banks	37.81	37.77	35.99	37.82	35.40
2 Non-Bank PDs	0.25	0.27	0.34	0.35	0.27
3 Insurance Companies	25.64	25.30	25.83	24.18	25.74
4 Mutual Funds	2.62	2.94	2.82	2.91	3.08
5 Co-operative Banks	1.83	1.82	1.82	1.50	1.82
6 Financial Institutions	1.00	1.00	1.43	1.17	1.69
7 Corporates	1.05	1.06	1.39	0.72	1.37
8 Foreign Portfolio Investors	2.10	1.87	1.79	1.81	1.66
9 Provident Funds	4.61	4.44	4.04	3.77	4.33
10 RBI	15.71	16.20	17.11	16.98	16.92
11. Others	7.37	7.33	7.43	8.79	7.73
11.1 State Governments	1.76	1.69	1.67	1.67	1.69

State Governments Securities					
Category	2020	2021			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(B) Total (in ₹. Crore)	3721573	3879982	4028849	4153508	4257578
1 Commercial Banks	34.19	33.69	33.75	35.94	34.41
2 Non-Bank PDs	0.36	0.48	0.39	0.44	0.40
3 Insurance Companies	30.25	30.04	29.67	27.50	28.85
4 Mutual Funds	1.92	1.82	1.74	1.97	1.91
5 Co-operative Banks	4.11	4.05	4.12	3.60	4.07
6 Financial Institutions	1.88	1.86	1.79	1.72	1.73
7 Corporates	0.45	0.49	1.45	1.32	1.70
8 Foreign Portfolio Investors	0.02	0.02	0.02	0.03	0.02
9 Provident Funds	21.20	22.00	21.09	18.27	20.66
10 RBI	0.81	0.77	0.88	0.85	0.83
11. Others	4.82	4.77	5.10	8.38	5.40
11.1 State Governments	0.18	0.18	0.18	0.18	0.19

Treasury Bills					
Category	2020	2021			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(C) Total (in ₹. Crore)	839729	690646	901327	763582	692869
1 Commercial Banks	54.75	55.54	52.25	50.22	47.01
2 Non-Bank PDs	1.65	2.82	1.82	1.33	1.53
3 Insurance Companies	4.50	5.61	4.75	4.12	6.29
4 Mutual Funds	18.98	17.80	19.93	17.72	13.72
5 Co-operative Banks	1.61	2.43	1.60	1.32	1.49
6 Financial Institutions	1.11	1.24	2.56	2.12	2.36
7 Corporates	2.01	3.16	3.00	2.40	3.13
8 Foreign Portfolio Investors	0.00	0.00	0.00	0.15	0.72
9 Provident Funds	0.09	0.22	0.10	0.37	0.85
10 RBI	0.68	0.49	2.58	2.63	0.00
11. Others	14.63	10.70	11.42	17.62	22.89
11.1 State Governments	13.27	5.98	7.97	12.64	18.92

No. 46: Combined Receipts and Disbursements of the Central and State Governments

(₹ Crore)

Item	2016-17	2017-18	2018-19	2019-20	2020-21 RE	2021-22 BE
	1	2	3	4	5	6
1 Total Disbursements	4265969	4515946	5040747	5410887	6523916	7160694
1.1 Developmental	2537905	2635110	2882758	3074492	3906147	4254004
1.1.1 Revenue	1878417	2029044	2224367	2446605	3259401	3242247
1.1.2 Capital	501213	519356	596774	588233	636062	922982
1.1.3 Loans	158275	86710	61617	39654	10684	88775
1.2 Non-Developmental	1672646	1812455	2078276	2253027	2526514	2810847
1.2.1 Revenue	1555239	1741432	1965907	2109629	2334608	2602289
1.2.1.1 Interest Payments	724448	814757	894520	955801	1082302	1244457
1.2.2 Capital	115775	69370	111029	141457	189487	177328
1.2.3 Loans	1632	1654	1340	1941	2419	31230
1.3 Others	55417	68381	79713	83368	91255	95843
2 Total Receipts	4288432	4528422	5023352	5734166	6489736	7039032
2.1 Revenue Receipts	3132201	3376416	3797731	3851563	3834126	4682025
2.1.1 Tax Receipts	2622145	2978134	3278947	3231582	3175594	3829889
2.1.1.1 Taxes on commodities and services	1652377	1853859	2030050	2012578	2100982	2514708
2.1.1.2 Taxes on Income and Property	965622	1121189	1246083	1216203	1071552	1311449
2.1.1.3 Taxes of Union Territories (Without Legislature)	4146	3086	2814	2800	3060	3732
2.1.2 Non-Tax Receipts	510056	398282	518783	619981	658532	852135
2.1.2.1 Interest Receipts	33220	34224	36273	31137	39830	33198
2.2 Non-debt Capital Receipts	69063	142433	140287	110094	54861	201138
2.2.1 Recovery of Loans & Advances	20942	42213	44667	59515	21151	19581
2.2.2 Disinvestment proceeds	48122	100219	95621	50578	33710	181557
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	1064704	997097	1102729	1449230	2634928	2277532
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	1046708	989167	1097210	1440548	2580406	2276017
3A.1.1 Net Bank Credit to Government	617123	144792	387091	571872	890012	----
3A.1.1.1 Net RBI Credit to Government	195816	-144847	325987	190241	107494	----
3A.1.2 Non-Bank Credit to Government	429585	844375	710119	868676	1690394	----
3A.2 External Financing	17997	7931	5519	8682	54522	1514
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	1046708	989167	1097210	1440548	2580406	2276017
3B.1.1 Market Borrowings (net)	689821	794856	795845	971378	1778062	1620936
3B.1.2 Small Savings (net)	35038	71222	88961	209232	455724	367863
3B.1.3 State Provident Funds (net)	45688	42351	51004	38280	47300	45504
3B.1.4 Reserve Funds	-6436	18423	-18298	10411	-3450	5051
3B.1.5 Deposits and Advances	17792	25138	66289	-14227	29050	28868
3B.1.6 Cash Balances	-22463	-12476	17395	-323279	34179	121663
3B.1.7 Others	287268	49653	96014	548753	239540	86132
3B.2 External Financing	17997	7931	5519	8682	54522	1514
<i>4 Total Disbursements as per cent of GDP</i>	<i>27.7</i>	<i>26.4</i>	<i>26.7</i>	<i>26.6</i>	<i>33.0</i>	<i>32.1</i>
<i>5 Total Receipts as per cent of GDP</i>	<i>27.9</i>	<i>26.5</i>	<i>26.6</i>	<i>28.2</i>	<i>32.9</i>	<i>31.6</i>
<i>6 Revenue Receipts as per cent of GDP</i>	<i>20.3</i>	<i>19.8</i>	<i>20.1</i>	<i>18.9</i>	<i>19.4</i>	<i>21.0</i>
<i>7 Tax Receipts as per cent of GDP</i>	<i>17.0</i>	<i>17.4</i>	<i>17.4</i>	<i>15.9</i>	<i>16.1</i>	<i>17.2</i>
<i>8 Gross Fiscal Deficit as per cent of GDP</i>	<i>6.9</i>	<i>5.8</i>	<i>5.8</i>	<i>7.1</i>	<i>13.3</i>	<i>10.2</i>

...: Not available. RE: Revised Estimates; BE: Budget Estimates

Source : Budget Documents of Central and State Governments.

No. 47: Financial Accommodation Availed by State Governments under various Facilities

(₹ Crore)

Sr. No	State/Union Territory	During January-2022					
		Special Drawing Facility (SDF)		Ways and Means Advances (WMA)		Overdraft (OD)	
		Average amount availed	Number of days availed	Average amount availed	Number of days availed	Average amount availed	Number of days availed
1	2	3	4	5	6	7	
1	Andhra Pradesh	368	24	2055	23	1517	19
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	-	-	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	-	-	-	-	-	-
6	Goa	37	3	-	-	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	-	-	-	-	-	-
9	Himachal Pradesh	-	-	-	-	-	-
10	Jammu & Kashmir UT	-	-	1161	26	1009	18
11	Jharkhand	-	-	-	-	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	79	2	627	2	-	-
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	98	1	-	-	-	-
16	Manipur	-	-	298	30	198	26
17	Meghalaya	97	19	273	19	151	16
18	Mizoram	-	-	131	19	32	2
19	Nagaland	55	20	210	15	22	6
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	28	1	-	-	-	-
23	Rajasthan	3657	19	-	-	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	399	23	1614	19	1701	11
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	-	-	-	-	-	-
29	West Bengal	-	-	-	-	-	-

Note: The State of J&K has ceased to exist constitutionally from October 31, 2019 and the liabilities of the State continue to remain as liabilities of the new UT of Jammu and Kashmir.

Source: Reserve Bank of India.

No. 48: Investments by State Governments

(₹ Crore)

Sr. No	State/Union Territory	As on end of January 2022			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	9162	905	--	-
2	Arunachal Pradesh	1985	3	--	-
3	Assam	2691	60	--	-
4	Bihar	6198	--	--	-
5	Chhattisgarh	5476	--	1	4300
6	Goa	677	343	--	-
7	Gujarat	6954	529	--	2000
8	Haryana	860	1340	--	-
9	Himachal Pradesh	--	--	--	2500
10	Jammu & Kashmir UT	--	--	--	-
11	Jharkhand	496	--	--	-
12	Karnataka	7409	--	--	26500
13	Kerala	2368	--	--	-
14	Madhya Pradesh	--	1014	--	-
15	Maharashtra	49137	911	--	25000
16	Manipur	170	111	--	-
17	Meghalaya	803	46	9	-
18	Mizoram	388	52	--	-
19	Nagaland	1826	37	--	-
20	Odisha	12406	1619	94	31773
21	Puducherry	339	--	--	1276
22	Punjab	2021	--	8	-
23	Rajasthan	--	--	129	6300
24	Tamilnadu	7350	--	40	16165
25	Telangana	6265	1368	--	-
26	Tripura	575	10	--	1100
27	Uttar Pradesh	1023	--	180	-
28	Uttarakhand	3806	150	--	-
29	West Bengal	9939	692	214	-
	Total	140324	9190	674	116914

Note: The State of J&K has ceased to exist constitutionally from October 31, 2019 and the liabilities of the State continue to remain as liabilities of the new UT of Jammu and Kashmir.

No. 49: Market Borrowings of State Governments

(₹ Crore)

Sr. No.	State	2019-20		2020-21		2021-22						Total amount raised, so far in 2021-22	
		Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	November		December		January		Gross	Net
						Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised		
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Andhra Pradesh	42415	33444	50896	41915	2000	840	3250	3250	2500	1920	38500	29909
2	Arunachal Pradesh	1366	1287	767	767	-	-	-	-	163	163	563	563
3	Assam	12906	10996	15030	14230	1000	500	2800	1800	653	153	9953	7953
4	Bihar	25601	22601	27285	24685	4000	4000	3000	2281	2000	719	25000	22000
5	Chhattisgarh	11680	10980	13000	10500	-	-1000	-	-	-	-	4000	2500
6	Goa	2600	2000	3354	3054	100	-100	400	300	100	100	1800	1300
7	Gujarat	38900	28600	44780	33280	-	-1000	-	-1500	4500	4500	22054	10554
8	Haryana	24677	20677	30000	25550	-	-500	-	-	1500	750	18000	12950
9	Himachal Pradesh	6580	4460	6000	3755	2000	1795	1000	800	-	-250	4000	3245
10	Jammu & Kashmir UT	7869	6760	9328	6020	400	225	1800	1100	-	-	6400	4825
11	Jharkhand	7500	5656	9400	8900	-	-	-	-	-	-	1500	500
12	Karnataka	48500	42500	69000	61900	4000	2500	12000	9500	20000	17500	42000	35500
13	Kerala	18073	12617	28566	23066	-	-	1000	-1000	-	-1380	20000	13620
14	Madhya Pradesh	22371	16550	45573	38773	4000	4000	-	-	4000	1500	18000	12500
15	Maharashtra	48498	32998	69000	50022	3000	3000	3000	1000	5500	-500	60250	42250
16	Manipur	1757	1254	1302	1044	200	200	90	90	59	59	1236	1086
17	Meghalaya	1344	1070	1777	1587	-	-50	328	328	200	100	1528	1218
18	Mizoram	900	745	944	677	-	-	-	-	150	150	584	334
19	Nagaland	1000	423	1721	1366	-	-	298	148	-	-	1287	1037
20	Odisha	7500	6500	3000	500	-	-500	-	-473	-	-	-	-3973
21	Puducherry	970	470	1390	790	125	125	250	250	390	390	889	889
22	Punjab	27355	18470	32995	23467	-	-500	1500	1150	4532	3932	18314	7614
23	Rajasthan	39092	24686	57359	44273	1500	617	3669	2669	4500	3883	40269	32187
24	Sikkim	809	481	1292	1292	-	-	177	137	201	201	1129	1089
25	Tamil Nadu	62425	49826	87977	76796	4000	2260	5000	5000	2900	-300	54900	44700
26	Telangana	37109	30697	43784	37365	3000	2160	5500	5500	6187	5767	39687	33478
27	Tripura	2928	2578	1916	1631	-	-	-	-	-	-50	300	100
28	Uttar Pradesh	69703	52744	75500	59185	5000	2513	5000	2922	12500	11500	57500	41213
29	Uttarakhand	5100	4500	6200	5208	-	-	500	350	500	400	2200	1100
30	West Bengal	56992	40882	59680	50180	3500	2500	9500	6950	6500	4700	54000	33477
	Grand Total	634521	487454	798816	651777	37825	23585	60062	42552	79535	55907	545843	395718

- : Nil.

Note: The State of J&K has ceased to exist constitutionally from October 31, 2019 and the liabilities of the State continue to remain as liabilities of the new UT of Jammu and Kashmir.

Source: Reserve Bank of India.

No. 50 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise

(Amount in ₹ Crore)

Item	2018-19				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	274259.3	321740.3	253754.5	642691.2	1492445.3
<i>Per cent of GDP</i>	6.0	6.9	5.2	13.4	7.9
I. Financial Assets	358515.3	576730.6	391939.2	936505.3	2263690.4
<i>Per cent of GDP</i>	7.9	12.4	8.1	19.5	12.0
of which:					
1. Total Deposits (a+b)	-53701.5	302123.2	22607.1	539383.9	810412.8
(a) Bank Deposits	-63806.9	292541.5	13060.8	535297.3	777092.6
i. Commercial Banks	-62127.0	289468.1	10634.6	490680.6	728656.4
ii. Co-operative Banks	-1679.9	3073.4	2426.2	44616.6	48436.3
(b) Non-Bank Deposits	10105.5	9581.7	9546.4	4086.6	33320.2
2. Life Insurance Funds	91771.1	98477.3	89395.1	112489.6	392133.2
3. Provident and Pension Funds (including PPF)	98655.9	98158.9	99709.9	103561.9	400086.7
4. Currency	111196.6	-32134.4	102656.5	96153.4	277872.1
5. Investments	58281.3	57793.7	25258.8	32604.6	173938.4
of which:					
(a) Mutual Funds	49798.2	49798.2	23816.6	28146.8	151559.9
(b) Equity	2001.2	3054.4	471.0	855.8	6382.4
6. Small Savings (excluding PPF)	51259.6	51259.6	51259.6	51259.6	205038.3
II. Financial Liabilities	84255.9	254990.3	138184.7	293814.1	771245.0
<i>Per cent of GDP</i>	1.8	5.5	2.8	6.1	4.1
Loans (Borrowings) from					
1. Financial Corporations (a+b)	84085.7	254820.0	138014.4	293643.8	770563.9
(a) Banking Sector	42852.5	171884.2	141026.9	248612.6	604376.2
of which:					
Commercial Banks	39005.8	170252.0	141845.9	227069.5	578173.3
(b) Other Financial Institutions	41233.1	82935.8	-3012.4	45031.2	166187.7
i. Non-Banking Financial Companies	15057.0	52605.2	-3755.8	28952.6	92859.0
ii. Housing Finance Companies	23560.2	28328.8	-786.8	14118.7	65220.9
iii. Insurance Companies	2615.9	2001.9	1530.1	1959.9	8107.8
2. Non-Financial Corporations (Private Corporate Business)	33.8	33.8	33.8	33.8	135.1
3. General Government	136.5	136.5	136.5	136.5	546.0

No. 50 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise (Contd.)

(Amount in ₹ Crore)

Item	2019-20				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	252658.0	513118.4	400437.3	446254.3	1612468.0
<i>Per cent of GDP</i>	5.1	10.6	7.8	8.7	8.0
I. Financial Assets	413192.2	604322.7	538186.1	843385.9	2399086.9
<i>Per cent of GDP</i>	8.4	12.4	10.5	16.4	12.0
of which:					
1. Total Deposits (a+b)	13020.4	299089.8	138131.8	473183.4	923425.5
(a) Bank Deposits	-9769.4	280588.7	130328.0	465529.7	866677.0
i. Commercial Banks	-13293.8	269475.4	66666.7	446006.7	768855.0
ii. Co-operative Banks	3524.4	11113.2	63661.3	19523.0	97822.0
(b) Non-Bank Deposits	22789.9	18501.2	7803.7	7653.7	56748.5
2. Life Insurance Funds	117394.9	107731.0	109895.6	37236.1	372257.5
3. Provident and Pension Funds (including PPF)	110601.0	113593.0	113676.0	117235.0	455104.9
4. Currency	61244.1	-26104.8	86832.6	160690.2	282662.1
5. Investments	43936.8	43018.8	22655.1	-11953.8	97656.9
of which:					
(a) Mutual Funds	23303.5	38382.2	19191.1	-19191.1	61685.7
(b) Equity	18648.2	2172.4	936.2	4981.0	26737.8
6. Small Savings (excluding PPF)	65930.8	65930.8	65930.8	65930.8	263723.4
II. Financial Liabilities	160534.2	91204.3	137748.8	397131.6	786618.9
<i>Per cent of GDP</i>	3.2	1.9	2.7	7.7	3.9
Loans (Borrowings) from					
1. Financial Corporations (a+b)	160500.7	91170.8	137715.2	397098.1	786484.7
(a) Banking Sector	141332.5	58250.2	121754.0	200413.2	521749.9
of which:					
Commercial Banks	135754.1	57135.0	87377.4	202214.2	482480.6
(b) Other Financial Institutions	19168.2	32920.5	15961.2	196684.8	264734.8
i. Non-Banking Financial Companies	-519.7	22976.7	29930.7	198264.3	250652.0
ii. Housing Finance Companies	17033.0	8093.1	-15710.4	-3093.1	6322.6
iii. Insurance Companies	2655.0	1850.8	1740.9	1513.6	7760.2
2. Non-Financial Corporations (Private Corporate Business)	33.8	33.8	33.8	33.8	135.1
3. General Government	-0.3	-0.3	-0.3	-0.3	-1.0

No. 50 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise (Concl'd.)

(Amount in ₹ Crore)

Item	2020-21				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	623053.8	592327.3	506558.3	581769.1	2303708.6
<i>Per cent of GDP</i>	16.1	12.5	9.3	10.1	11.6
I. Financial Assets	828447.4	630907.1	676131.6	973510.9	3108997.0
<i>Per cent of GDP</i>	21.4	13.4	12.4	16.9	15.7
of which:					
1.Total Deposits (a+b)	297376.2	278589.7	158113.5	533651.5	1267730.9
(a) Bank Deposits	281155.1	264523.3	147037.2	535157.5	1227873.0
i. Commercial Banks	279010.5	262033.7	143558.6	471730.9	1156333.7
ii. Co-operative Banks	2144.6	2489.6	3478.6	63426.6	71539.3
(b) Non-Bank Deposits	16221.1	14066.4	11076.3	-1506.0	39857.9
2. Life Insurance Funds	122369.1	141443.4	155516.3	100812.3	520141.0
3. Provident and Pension Funds (including PPF)	121582.5	124106.5	124949.5	130185.5	500824.0
4. Currency	202432.7	21286.9	91456.0	66800.5	381976.1
5. Investments	6249.8	-12956.4	67659.3	63624.0	124576.7
of which:					
(a) Mutual Funds	-16021.0	-28837.7	57675.4	51267.0	64083.8
(b) Equity	18599.4	8291.5	5307.1	6333.3	38531.2
6. Small Savings (excluding PPF)	77381.6	77381.6	77381.6	77381.6	309526.3
II. Financial Liabilities	205393.5	38579.8	169573.3	391741.8	805288.5
<i>Per cent of GDP</i>	5.3	0.8	3.1	6.8	4.1
Loans (Borrowings) from					
1. Financial Corporations (a+b)	205436.7	38623.0	169616.5	391785.8	805462.1
(a) Banking Sector	211005.3	13211.7	139387.5	304100.8	667705.3
of which:					
Commercial Banks	211259.3	13213.8	140514.3	242476.0	607463.5
(b) Other Financial Institutions	-5568.6	25411.3	30229.0	87685.1	137756.8
i. Non-Banking Financial Companies	-15450.4	21627.1	15921.2	61326.1	83424.0
ii. Housing Finance Companies	10516.6	2875.1	13048.5	25336.1	51776.2
iii. Insurance Companies	-634.8	909.2	1259.3	1022.9	2556.6
2. Non-Financial Corporations (Private Corporate Business)	33.8	33.8	33.8	33.0	134.4
3. General Government	-77.0	-77.0	-77.0	-77.0	-308.0

Notes: 1. Data as ratios to GDP have been calculated based on the Second Advance Estimates of National Income 2021-22 released on February 28, 2022.

2. Figures in the columns may not add up to the total due to rounding off.

No. 50 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators

(Amount in ₹ Crore)

Item	Jun-2018	Sep-2018	Dec-2018	Mar-2019
Financial Assets (a+b+c+d)	14490526.2	14891219.6	15112941.4	15957967.7
<i>Per cent of GDP</i>	82.1	82.1	80.9	84.5
(a) Bank Deposits (i+ii)	8000655.6	8293197.1	8306257.8	8841555.1
i. Commercial Banks	7354053.7	7643521.8	7654156.4	8144837.0
ii. Co-operative Banks	646601.9	649675.3	652101.4	696718.1
(b) Life Insurance Funds	3483557.7	3585786.7	3646756.6	3785298.5
(c) Currency	1782923.3	1750788.9	1853445.4	1949598.8
(d) Mutual funds	1223389.6	1261446.9	1306481.6	1381515.3
Financial Liabilities (a+b)	5643303.3	5898123.3	6036137.8	6329781.5
<i>Per cent of GDP</i>	32.0	32.5	32.3	33.5
Loans (Borrowings) from				
(a) Banking Sector	4565448.5	4737332.7	4878359.6	5126972.2
of which:				
i. Commercial Banks	3993574.8	4163826.9	4305672.8	4532742.3
ii. Co-operative Banks	474552.2	475903.1	475218.4	487445.3
(b) Other Financial Institutions	1077854.8	1160790.6	1157778.2	1202809.3
of which:				
i. Non-Banking Financial Companies	374640.0	427245.2	423489.4	452442.0
ii. Housing Finance Companies	614618.4	642947.2	642160.4	656279.2

No. 50 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators (Contd.)

(Amount in ₹ Crore)

Item	Jun-2019	Sep-2019	Dec-2019	Mar-2020
Financial Assets (a+b+c+d)	16130869.8	16439609.3	16829228.1	17002698.8
<i>Per cent of GDP</i>	83.7	84.4	85.3	84.7
(a) Bank Deposits (i+ii)	8831785.7	9111489.5	9239027.3	9688573.4
i. Commercial Banks	8131543.2	8401018.6	8467685.3	8913692.0
ii. Co-operative Banks	700242.5	710470.8	771341.9	774881.4
(b) Life Insurance Funds	3883609.7	3930727.6	4049902.5	3884771.5
(c) Currency	2010842.9	1984738.1	2071570.7	2232261.0
(d) Mutual funds	1404631.5	1412654.1	1468727.6	1197092.9
Financial Liabilities (a+b)	6490282.2	6581453.0	6719168.2	7116266.3
<i>Per cent of GDP</i>	33.7	33.8	34.0	35.4
Loans (Borrowings) from				
(a) Banking Sector	5268304.7	5326554.9	5448308.9	5648722.1
of which:				
i. Commercial Banks	4668496.4	4725631.3	4813008.7	5015222.9
ii. Co-operative Banks	513013.7	513764.2	542994.4	529720.6
(b) Other Financial Institutions	1221977.5	1254898.1	1270859.3	1467544.1
of which:				
i. Non-Banking Financial Companies	451922.3	474899.0	504829.7	703094.0
ii. Housing Finance Companies	673312.1	681405.2	665694.8	662601.7

No. 50 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators (Concl'd.)

(Amount in ₹ Crore)

Item	Jun-2020	Sep-2020	Dec-2020	Mar-2021
Financial Assets (a+b+c+d)	17850174.9	18408441.6	19129606.6	19979862.7
<i>Per cent of GDP</i>	93.9	97.6	99.7	100.9
(a) Bank Deposits (i+ii)	9969728.5	10234251.8	10381289.0	10916446.4
i. Commercial Banks	9192702.5	9454736.2	9598294.8	10070025.7
ii. Co-operative Banks	777026.0	779515.6	782994.2	846420.7
(b) Life Insurance Funds	4102000.7	4274424.9	4551882.0	4718718.2
(c) Currency	2434693.7	2455980.6	2547436.6	2614237.0
(d) Mutual funds	1343752.0	1443784.4	1648999.0	1730461.0
Financial Liabilities (a+b)	7321703.0	7360326.0	7529942.6	7921728.4
<i>Per cent of GDP</i>	38.5	39.0	39.3	40.0
Loans (Borrowings) from				
(a) Banking Sector	5859727.5	5872939.2	6012326.7	6316427.4
of which:				
i. Commercial Banks	5226482.2	5239696.0	5380210.4	5622686.4
ii. Co-operative Banks	558551.1	558545.6	557545.8	608703.4
(b) Other Financial Institutions	1461975.5	1487386.9	1517615.9	1605301.0
of which:				
i. Non-Banking Financial Companies	687643.6	709270.7	725191.9	786518.0
ii. Housing Finance Companies	673118.3	675993.4	689041.8	714377.9

- Notes:** 1. Data have been compiled for select financial instruments only (loans from Banking Sector, NBFCs and HFCs) for which data are available.
2. Data as ratios to GDP have been calculated based on the Second Advance Estimates of National Income 2021-22 released on February 28, 2022.
3. Figures in the columns may not add up to the total due to rounding off.

Explanatory Notes to the Current Statistics

Table No. 1

1.2& 6: Annual data are average of months.

3.5 & 3.7: Relate to ratios of increments over financial year so far.

4.1 to 4.4, 4.8,4.9 &5: Relate to the last friday of the month/financial year.

4.5, 4.6 & 4.7: Relate to five major banks on the last Friday of the month/financial year.

4.10 to 4.12: Relate to the last auction day of the month/financial year.

4.13: Relate to last day of the month/ financial year

7.1&7.2: Relate to Foreign trade in US Dollar.

Table No. 2

2.1.2: Include paid-up capital, reserve fund and Long-Term Operations Funds.

2.2.2: Include cash, fixed deposits and short-term securities/bonds, e.g., issued by IIFC (UK).

Table No. 4

Maturity-wise position of outstanding forward contracts is available at <http://nsdp.rbi.org.in> under "Reserves Template".

Table No. 5

Special refinance facility to Others, i.e. to the EXIM Bank, is closed since March 31, 2013.

Table No. 6

For scheduled banks, March-end data pertain to the last reporting Friday.

2.2: Exclude balances held in IMF Account No.1, RBI employees' provident fund, pension fund, gratuity and superannuation fund.

Table Nos. 7 & 11

3.1 in Table 7 and 2.4 in Table 11: Include foreign currency denominated bonds issued by IIFC (UK).

Table No. 8

NM₂ and NM₃ do not include FCNR (B) deposits.

2.4: Consist of paid-up capital and reserves.

2.5: includes other demand and time liabilities of the banking system.

Table No. 9

Financial institutions comprise EXIM Bank, SIDBI, NABARD and NHB.

L₁ and L₂ are compiled monthly and L₃ quarterly.

Wherever data are not available, the last available data have been repeated.

Table No. 13

Data against column Nos. (1), (2) & (3) are Final and for column Nos. (4) & (5) data are Provisional.

Table No. 14

Data in column Nos. (4) & (8) are Provisional.

Table No. 17

2.1.1: Exclude reserve fund maintained by co-operative societies with State Co-operative Banks

2.1.2: Exclude borrowings from RBI, SBI, IDBI, NABARD, notified banks and State Governments.

4: Include borrowings from IDBI and NABARD.

Table No. 24

Primary Dealers (PDs) include banks undertaking PD business.

Table No. 30

Exclude private placement and offer for sale.

1: Exclude bonus shares.

2: Include cumulative convertible preference shares and equi-preference shares.

Table No. 32

Exclude investment in foreign currency denominated bonds issued by IIFC (UK), SDRs transferred by Government of India to RBI and foreign currency received under SAARC SWAP arrangement. Foreign currency assets in US dollar take into account appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen and Australian Dollar) held in reserves. Foreign exchange holdings are converted into rupees at rupee-US dollar RBI holding rates.

Table No. 34

1.1.1.1.2 & 1.1.1.1.4: Estimates.

1.1.1.2: Estimates for latest months.

'Other capital' pertains to debt transactions between parent and subsidiaries/branches of FDI enterprises.

Data may not tally with the BoP data due to lag in reporting.

Table No. 35

1.10: Include items such as subscription to journals, maintenance of investment abroad, student loan repayments and credit card payments.

Table No. 36

Increase in indices indicates appreciation of rupee and vice versa. For 6-Currency index, base year 2019-20 is a moving one, which gets updated every year. REER figures are based on Consumer Price Index (combined). The details on methodology used for compilation of NEER/REER indices are available in December 2005, April 2014 and January 2021 issues of the RBI Bulletin.

Table No. 37

Based on applications for ECB/Foreign Currency Convertible Bonds (FCCBs) which have been allotted loan registration number during the period.

Table Nos. 38, 39, 40 & 41

Explanatory notes on these tables are available in December issue of RBI Bulletin, 2012.

Table No. 43

Part I-A. Settlement systems

1.1.3: Tri- party Repo under the securities segment has been operationalised from November 05, 2018.

Part I-B. Payments systems

4.1.2: 'Others' includes e-commerce transactions and digital bill payments through ATMs, etc.

4.2.2: 'Others' includes e-commerce transactions, card to card transfers and digital bill payments through ATMs, etc.

5: Available from December 2010.

5.1: includes purchase of goods and services and fund transfer through wallets.

5.2.2: includes usage of PPI Cards for online transactions and other transactions.

6.1: Pertain to three grids – Mumbai, New Delhi and Chennai.

6.2: 'Others' comprises of Non-MICR transactions which pertains to clearing houses managed by 21 banks.

Part II-A. Other payment channels

1: Mobile Payments –

- Include transactions done through mobile apps of banks and UPI apps.
- The data from July 2017 includes only individual payments and corporate payments initiated, processed, and authorised using mobile device. Other corporate payments which are not initiated, processed, and authorised using mobile device are excluded.

2: Internet Payments – includes only e-commerce transactions through 'netbanking' and any financial transaction using internet banking website of the bank.

Part II-B. ATMs

3.3 and 4.2: only relates to transactions using bank issued PPIs.

Part III. Payment systems infrastructure

3: Includes ATMs deployed by Scheduled Commercial Banks (SCBs) and White Label ATM Operators (WLAOs). WLAs are included from April 2014 onwards.

Table No. 45

(-): represents nil or negligible

The revised table format since June 2016, incorporates the ownership pattern of State Governments Securities and Treasury Bills along with the Central Government Securities.

State Government Securities include special bonds issued under Ujwal DISCOM Assurance Yojana (UDAY) scheme. Bank PDs are clubbed under Commercial Banks. However, they form very small fraction of total outstanding securities.

The category 'Others' comprises State Governments, Pension Funds, PSUs, Trusts, HUF/Individuals etc.

Table No. 46

GDP data is based on 2011-12 base. GDP data from 2019-20 pertains to the Provisional Estimates of National Income released by National Statistics Office on 29th May 2020. GDP for 2020-21 is from Union Budget 2020-21. Data pertains to all States and Union Territories.

Total receipts and total expenditure exclude National Calamity Contingency Fund expenditure.

1 & 2: Data are net of repayments of the Central Government (including repayments to the NSSF) and State Governments.

1.3: Represents compensation and assignments by States to local bodies and Panchayati Raj institutions.

2: Data are net of variation in cash balances of the Central and State Governments and includes borrowing receipts of the Central and State Governments.

3A.1.1: Data as per RBI records.

3B.1.1: Borrowings through dated securities.

3B.1.2: Represent net investment in Central and State Governments' special securities by the National Small Savings Fund (NSSF).

This data may vary from previous publications due to adjustments across components with availability of new data.

3B.1.6: Include Ways and Means Advances by the Centre to the State Governments.

3B.1.7: Include Treasury Bills, loans from financial institutions, insurance and pension funds, remittances, cash balance investment account.

Table No. 47

SDF is availed by State Governments against the collateral of Consolidated Sinking Fund (CSF), Guarantee Redemption Fund (GRF) & Auction Treasury Bills (ATBs) balances and other investments in government securities.

WMA is advance by Reserve Bank of India to State Governments for meeting temporary cash mismatches.

OD is advanced to State Governments beyond their WMA limits.

Average amount Availed is the total accommodation (SDF/WMA/OD) availed divided by number of days for which accommodation was extended during the month.

- : Nil.

Table No. 48

CSF and GRF are reserve funds maintained by some State Governments with the Reserve Bank of India.

ATBs include Treasury bills of 91 days, 182 days and 364 days invested by State Governments in the primary market.

--: Not Applicable (not a member of the scheme).

The concepts and methodologies for Current Statistics are available in Comprehensive Guide for Current Statistics of the RBI Monthly Bulletin (<https://rbi.org.in/Scripts/PublicationsView.aspx?id=17618>)

Time series data of 'Current Statistics' is available at <https://dbie.rbi.org.in>.

Detailed explanatory notes are available in the relevant press releases issued by RBI and other publications/releases of the Bank such as **Handbook of Statistics on the Indian Economy**.

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12. Perspectives on Central Banking Governors Speak (1935-2010) Platinum Jubilee	₹1400 per copy (over the counter)	US\$ 50 per copy (inclusive of air mail courier charges)

Notes

- Many of the above publications are available at the RBI website (www.rbi.org.in).
 - Time Series data are available at the Database on Indian Economy (<http://dbie.rbi.org.in>).
 - The Reserve Bank of India History 1935-1997 (4 Volumes). Challenges to Central Banking in the Context of Financial Crisis and the Regional Economy of India: Growth and Finance are available at leading book stores in India.
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