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*Global Risks and Policy Challenges Facing Emerging Market Economies**

Shaktikanta Das

Thank you for inviting me to this forum.

I intend to cover some of the global risks and policy challenges from the perspective of emerging market economies (EMEs). We are aware that most EMEs have emerged more resilient than before from a turbulent 2018. For the greater part of 2018, the EMEs faced a wave of global spillover risks leading to capital outflows, currency and asset price volatility and tightened financial conditions. These developments posed risks to growth and inflation. Strong fundamentals, forex reserve buffers, capital in banking systems and prudent macroeconomic policies, however, enabled these economies to absorb global spillovers. Yet, as Agustin Carstens and Hyun Song Shin soberingly point out, 'EMEs aren't out of the woods yet'.[1]

Global Risks

Let me highlight three major risks confronting EMEs in 2019.

The biggest risk facing these economies is the growing evidence that global growth and trade is weakening. Unsettled trade tensions and developments around Brexit are imparting further downside risks to the outlook. There is considerable uncertainty as to whether this weakness is temporary or the beginning of a recession in advanced economies. This uncertainty also seems to be reflected in several downward revisions to the 2019 global growth forecast by the IMF. Moreover, central banks across the world are stepping back from tightening monetary policy and some of them are promoting easier lending conditions. In some economies, fiscal stimuli are being used to support growth.

The second risk is that EMEs remain vulnerable to financial market volatility as the experience of 2018 has shown. The risk of sudden stops and reversals of capital flows has increased. Consequent external financing gaps and currency depreciations could undermine the outlook for growth and macroeconomic stability for these economies, just when global growth had begun to show signs of a synchronised revival a decade after the global financial crisis. Furthermore, adverse financial conditions could aggravate existing stress in the balance sheets of lending institutions in some EMEs and stretch their capital requirements.

The third risk to EMEs is the high volatility in international oil prices. For net energy importers like India, the recent firming up of oil prices on production cuts by major suppliers presents risks to current account deficit and inflation. The financialisation of energy markets and changing underlying dynamics in the global oil market are adding an upside risk to prices, though the demand is subdued. While break-even costs for shale production have apparently increased, investors have turned risk averse and are focusing on cash flows and financial returns. This may reduce the flexibility of shale output in filling the shortfalls created by OPEC plus production cuts.

Policy Challenges

So, in this environment, what are the policy challenges faced by EMEs?

In the aftermath of the global financial crisis (GFC), several EMEs have embarked upon structural reforms to reorient their economies. In the short-run, however, these reforms inevitably involve sacrifices, including in terms of losses of growth momentum. Conventionally, these reforms are best undertaken

* Shri Shaktikanta Das, Governor, Reserve Bank of India, speech delivered at the event 'Governor Talks' on the sidelines of the Fund-Bank Spring Meetings, 2019 in Washington DC on April 12, 2019.

[1] Foreign Affairs, March 15, 2019.

in the expansionary phase of the economic cycle. With growth slowing down in a synchronised manner across borders, the space for undertaking and/or pushing ahead with structural reforms is likely to become severely constricted or even deterred. But the fact remains that we need more structural reforms precisely when the economy is slowing down to ensure durable momentum to growth. This is a point which I would like to stress.

As the global economy loses speed and with fiscal space getting squeezed, the focus in EMEs as well as advanced economies is likely to be on monetary policy as the first line of defence. Central banks may once again be expected to assume the mantle of guardians of the world economy. The global financial crisis has, however, exposed several limitations of conventional and unconventional monetary policy tools. In despair, some have turned to the heterodox evolution of ideas that has come to be known as modern monetary theory. While the jury is still out on this idea, I have my own strong reservations on this due to its serious downside risks. In the end, monetary policy must touch the real economy, spur investments, and maintain monetary and financial stability.

I do, however, feel that the time has come to think out of the box, including by challenging the conventional wisdom. Let me try and somewhat shock you with one such thought experiment. Typically, modern central banks with interest rates as their main instrument move in baby steps – 25 basis points or multiples thereof – and announce a stance of tightening, neutrality or accommodation to guide the markets and the public on the likely future course of policy. One thought that comes to my mind is that if the unit of 25 basis points is not sacrosanct and just a convention, monetary policy can be well served by calibrating the size of the policy rate to the dynamics of the situation and the size of the change itself can convey the stance of policy. For instance, if easing of monetary policy is required but the central bank prefers to be cautious in its accommodation, a 10 basis points reduction in the policy rate would perhaps communicate the intent of authorities more clearly than two separate moves – one on the policy rate, wasting 15 basis points of valuable rate action to rounding off, and the other on the stance, which in a sense, binds future policy action to a pre-committed direction. Likewise, in a situation in which the central bank prefers to be accommodative but not overly so, it could announce a cut in the policy rate by 35 basis points if it has judged that the standard 25 basis points is too little, but its multiple, *i.e.,* 50 basis points is too much. This approach can also be useful when the central bank is on a tightening mode and potentially help avoid policy turnaround from forward guidance *via* stance too far into the future, which in a highly volatile global scenario, may not even be a year. I am articulating this idea not necessarily in search of a theory but in search of traction with domain experts and more particularly, with practitioner central bankers who face these dilemmas in their day-to-day lives.

At another level, a formidable challenge that EMEs will continue to face is the management of global spillovers. We live in a world of mobile capital flows where consequences of their arrivals, sudden stops and reversals are to be borne nationally. Against this backdrop, a truly global financial safety net remains elusive. The strengthening of resources of the IMF gets pushed out into time whenever we come together for Spring or Annual meetings. Under these conditions, EMEs which are typically at the receiving end when global spillovers flare up, have no recourse but to build their own forex reserve buffers. Paradoxically, the accumulation of reserves has become stigmatised, including with labels such as 'currency manipulation'. As I see it, we may be unintentionally setting the stage for several EME currencies to break out and challenge the hegemony of the dominant reserve currencies. There is a need for greater understanding on both

sides. In the meantime, so far as the Reserve Bank of India is concerned, we will continue to play by the extant rules of the game.

Central banks have to interact closely with financial markets for transmission of monetary policy impulses. In this context, ensuring a sound and efficient payment and settlement system is a pre-requisite. Taking cognisance of exponential growth of digitisation and online commerce in India, policy efforts have been directed in recent years to put in place a state of the art national payments infrastructure and technology platform. This has changed the retail payments scenario of the country. Regulation and development of our payment system envisages the objectives of safety, security, convenience, accessibility, and leveraging technological solutions to enable faster processing. In order to ensure an orderly development of FinTechs and streamline their influence into the financial system, we are now working on guidelines to introduce a 'regulatory sandbox/innovation hub' within a well-defined space and duration to experiment with FinTech solutions.

In this high flux and uncertain environment, EMEs could perhaps be better off by stepping up cooperation on all fronts, while recognising multi-polarity. One area of cooperation could be to put in place an institutional mechanism which balances the concerns of both oil exporting and importing countries to ensure stability in energy prices. EMEs also need to explore alternatives to reduce dependence on conventional energy sources, and give greater focus on renewables and energy efficiency. The International Solar Alliance, with its headquarters in New Delhi, is a vivid example. It seeks to provide a dedicated platform for cooperation among financial and solar resource rich countries so that the global community benefits from the use of solar energy.

In closing, let me say a few words about India. Real GDP growth is expected to clock 7.2 per cent during 2019-20, the fastest among large economies of the world, growing by an average rate of around 7.5 per cent in recent years. Inflation has remained below target, averaging 3.6 per cent for the period under the inflation targeting framework so far (since October 2016 up to February 2019); the current account deficit is expected to be around 2.5 per cent of GDP in 2018-19; and the gross fiscal deficit has adhered to budgetary targets.

Looking ahead, our priority is to remain watchful and take coordinated action to revive growth and maintain macroeconomic, financial and price stability.

Thank you.

*17th C.D. Deshmukh Memorial Lecture: Opening Remarks**

Shaktikanta Das

On behalf of the Reserve Bank of India, I am delighted to welcome Mr. Agustin Carstens, General Manager of the Bank for International Settlements to deliver the C. D. Deshmukh Memorial lecture, the seventeenth in the series. We are also honored to have Smt. and Shri Atul Deshmukh from late Shri C. D. Deshmukh's family. A hearty welcome to all the distinguished invitees of the Reserve Bank.

At the outset, I would like to say a few words about Shri C. D. Deshmukh to commemorate the occasion. Shri Chintaman Dwarkanath Deshmukh was born in Nata, near Fort Raigad in Maharashtra on January 14, 1896. He had an outstanding educational career. He stood first in the Matriculation examination of the University of Bombay in 1912. He graduated from Jesus College of Cambridge University in 1917 and topped the Indian Civil Services examination, then held only in London, in 1918. Upon his return to India in 1920, he worked in the Government of Bihar and also as a Joint Secretary to the Government of India.

His association with the RBI began in July 1939, when he was appointed Liaison Officer to keep the Government of India in touch with the Bank's affairs. Three months later, he was appointed Secretary of the Central Board of the Bank and two years later in December 1941, as the Deputy Governor. He was the first Indian to be appointed as the Governor of the Reserve Bank of India on August 11, 1943 and he continued in this capacity till June 30, 1949. He played a pivotal role in the creation of Industrial Finance Corporation and promotion of rural credit. During his tenure, RBI saw enactment of the Banking Companies Act, 1949 which laid the foundation for regulation of banking sector in India. The nationalisation of RBI on January 1, 1949 also took place during his tenure.

After his tenure in the RBI, Shri Deshmukh went on to become Member, Planning Commission when it was set up in 1950. Subsequently, he became Union Finance Minister in 1950 and served with distinction till July 1956. During his tenure, he made significant contributions to the formulation and implementation of the country's First and Second Five Year Plans. He was instrumental in the enactment of new Companies Act and nationalisation of the Imperial Bank of India and life insurance companies. After resignation from Union Cabinet he worked as Chairman of UGC during 1956 to 1961 and Vice-Chancellor of University of Delhi from 1962 to 1967. In 1975, he was bestowed with the Padma Vibhushan award. He was also a co-recipient of the prestigious Ramon Magsaysay Award in 1959 for distinguished Government Service.

For this year's Memorial Lecture in honour of Shri C.D. Deshmukh, it is our pleasure to have Mr. Agustin Carstens with us. He was the Governor of the Central Bank of Mexico from 2010 to 2017 and a member of the BIS Board from 2011 to 2017. As a BIS Board member, he chaired the Global Economy Meetings and the Meetings of Economic Consultative Council. He also headed the International Monetary and Financial Committee, the IMF's policy advisory committee for two years.

Mr. Carstens began his career at the Bank of Mexico in 1980, where he has worked in various capacities. He later served as Mexico's Deputy Finance Minister and as Deputy Managing Director at the IMF. He was Mexico's Finance Minister from 2006 to 2009.

He has also been a member of the Financial Stability Board since 2010 and is a member of the Group of Thirty.

Mr. Carstens holds a doctoral degree in economics from University of Chicago and has extensive research experience in the field of macroeconomic issues

* Shri Shaktikanta Das, Governor, Reserve Bank of India, opening remarks on the occasion of 17th C. D. Deshmukh Memorial lecture delivered in Mumbai on April 25, 2019.

and finance. His work on 'Latin American Central Bank Reform: Progress and Challenges', which takes stock of the institutional reforms of monetary policy in Latin America since the early 1990s, was widely acknowledged.

Today, Mr. Carstens will speak on 'Central Banking and Innovation: Partners in the Quest for Financial Inclusion', - a topic which could easily be the most relevant at the current juncture. The recent emergence of FinTech or digital innovations in finance is potentially a strong transformative force to shape the financial sector globally. A great benefit of these technological developments is the scope to expand financial outreach in a cost effective manner. At the same time, however, there are regulatory and supervisory challenges which the central banks across the globe need to address.

The Reserve Bank is committed to promote and deepen the cause of financial inclusion in India. The recent developments in FinTech have given a fresh impetus to financial inclusion process in the country. Taking cognisance of exponential growth of digitisation and online commerce in India, policy efforts have been directed in recent years to put in place a state of the art national payments infrastructure and technology platform.The Reserve Bank is continuously aligning its regulatory and supervisory framework so that the evolution of FinTech can be leveraged to widen and ease the financial access by the excluded population. In view of the growing significance of FinTech innovations and their interface with the financial sector as well as financial sector entities, the Reseve Bank is strengthening its surveillance framework and has also issued draft guidelines on 'Enabling Framework for Regulatory Sandbox' for obtaining the comments of stakeholders. Mr. Carstens's talk today will surely give us relevant insights in this direction.

Let me now invite Mr. Carstens to deliver his lecture.

Central Banking and Innovation: Partners in the Quest for Financial Inclusion *

Agustín Carstens

Good afternoon, ladies and gentlemen. It is a privilege to be here in Mumbai to deliver the 17th C.D. Deshmukh Memorial lecture. Thank you, Governor Das, for the kind invitation.

Governor Deshmukh was both an extraordinary statesman and the Reserve Bank of India's first Governor of Indian nationality. While presiding over the Bank's transformation from an institute owned by private shareholders to a modern-day central bank, he drove initiatives to support rural credit, including channelling Reserve Bank funds to develop agriculture. These measures reflected Governor Deshmukh's deep understanding of why financial inclusion matters. And, in his honour today, I would like to revisit the question of why financial inclusion belongs within the mandate of a central bank.

My main thesis is that central banks and financial authorities can support and promote financial inclusion, first and foremost, by pursuing their core objectives. By watching over price stability, they ensure that money keeps its value. By ensuring financial stability, they prevent financial institutions from failing, and taking people's savings with them. But most of all, central banks promote trust. By reinforcing trust in the financial system and its institutions, central banks bring ordinary people into the mainstream and help them reap its benefits. In this way, the central bank can help to catalyse a more inclusive and vibrant economy.

It is thus a necessary condition for financial inclusion that central banks fulfil their core mandates. Yet it is not sufficient. Other elements too are important. New technology can play a crucial role in breaking down barriers for both citizens and financial institutions. To foster this process, central banks and financial authorities must provide the right infrastructure. This includes hard or physical infrastructure such as payment and settlement systems, as well as soft or 'contextual' infrastructure such as rules and guidelines that let the full benefits of the technology be captured while protecting its users. Central banks and innovators are vital partners: one cannot achieve financial inclusion without the other's help.

Today, I will begin by stressing the benefits of financial inclusion and taking stock of where we now stand. I will then touch on the role that central banks and financial authorities play in providing the necessary conditions for success. And I will suggest how they might build on this success by partnering with fintech, as we now call technology-driven innovation in financial services. Finally, I will outline how the BIS can help to foster international cooperation in this field.

Why is financial inclusion important?

Financial inclusion provides access to financial services that are the key to participating in a modern economy. These include payments, credit, insurance and savings. Without access to efficient payment systems, business grinds to a halt. A modern economy cannot work without efficient, reliable and cost-effective payments.

Credit allows resources to be used more optimally over time. Credit from within the formal financial sector is typically cheaper and has better terms than informal credit, with all the problems arising from lender oligopolies and doubts about creditworthiness. In credit markets that are subject to such problems, market power can become entrenched. Black market lenders often run as monopolies and charge exorbitant

* The seventeenth C.D. Deshmukh Memorial Lecture Delivered by Mr. Agustín Carstens, General Manager, Bank for International Settlements (BIS) Mumbai, April 25, 2019

interest rates. Informal markets are also incapable of providing insurance products, which can serve as a cushion against shocks such as bad harvests, illness, or the death of the main wage earner.

Formal savings facilities can help generate low-risk interest income. Combined with formal credit facilities, they can help reduce fluctuations in consumer spending driven by income shocks. The poor stand to gain most from increased income stability and access to credit.

While financial access does not guarantee financial engagement, it acts as an incentive. A basic deposit account opens the door to trying out other banking services, such as payments and credit.

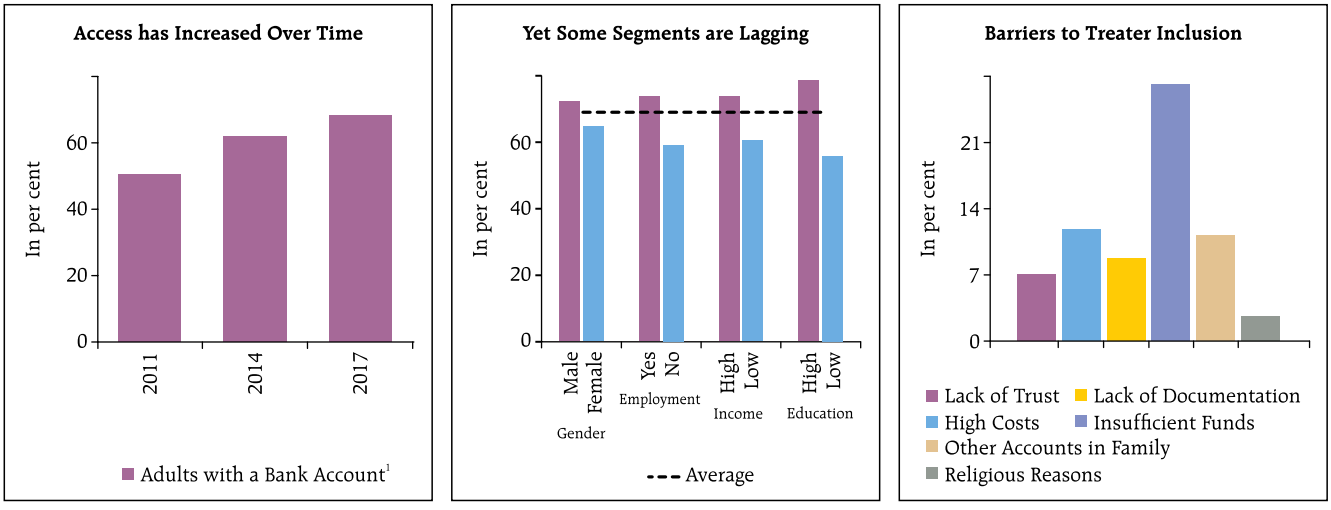
Furthermore, financial inclusion fosters 'social inclusion'. For example, by depositing savings in a current account, individuals are protected by property rights. If they put their savings into jewellery or just stash money under the mattress, they may fall victim to theft or devaluations. Moreover, financial inclusion can make the transfer of welfare benefits faster, cheaper, and less prone to leakage. This benefits the state as well as the recipients. Overall, inclusion can help reduce poverty.[1]

Main barriers to inclusion

Substantial progress has been made in expanding financial access. Since 2011, more than 1 billion adults have gained access to basic transaction accounts. Dedicated national strategies have played a big part. The *Jan Dhan Yojana* here in India sets an example.[2] Yet more needs to be done globally, in terms of both expanding access and creating incentives for engagement.

In terms of access, almost a third of the world's adult population still lacks a basic deposit account (Chart 1, left-hand panel).[3] In some countries in Africa, Asia and the Americas, only one adult in two has an account (Chart 2, bottom panel). On average, women, the poor, the unemployed and the less educated lag behind (Chart 1, centre panel).

Chart 1: Main Barriers to Inclusion



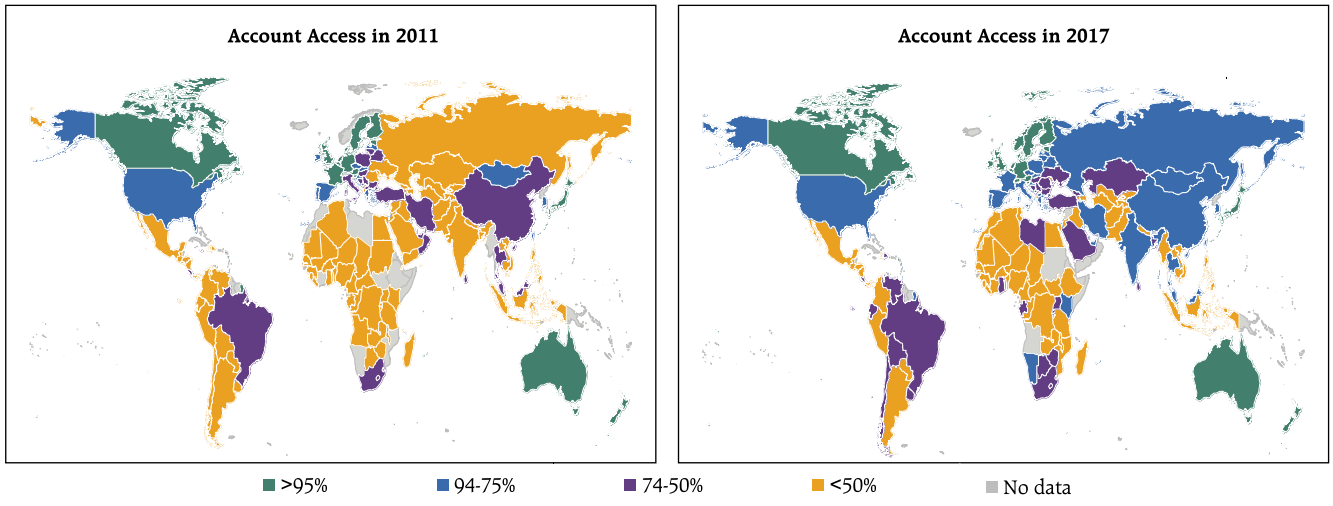
[1] Respondents aged 15+ who report having an account (individual or joint) at a bank or another type of financial institution or report personally using a mobile money service in the past 12 months.
Source: World Bank Global Findex Surveys 2011, 2014, and 2017; A Demirgüç-Kunt, L Klapper, D Singer, S Ansar and J Hess. *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution,* World Bank, 2018.

[1] See A Demirgüç-Kunt and R Levine, 'Finance and Inequality: Theory and Evidence', Annual Review of Financial Economics, 2009. Also see S Gupta, C Pattillo and S Wagh, 'Effect of Remittances on Poverty and Financial Development in Sub-Saharan Africa', World Development, 2009.

[2] See S Agarwal, S Alok, P Ghosh, S Ghosh, T Piskorski and A Seru, 'Banking the unbanked: what do 255 million new bank accounts reveal about financial access?', mimeo, 2017.

[3] Although some of these adults may have indirect financial access, *e.g.*, via a spouse who has a bank account.

Chart 2: Evolution of the Financial Inclusion Index in 2011–17[1]



[1] Respondents aged 15+ who report having an account (individual or joint) at a bank or another type of financial institution or report personally using a mobile money service in the past 12 months.

Source: World Bank Global Findex Surveys 2011 and 2017: A Demirgüç-Kunt, L Klapper, D Singer, S Ansar and J Hess. *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution,* World Bank, 2018.

But even with satisfactory levels of financial access, engagement can remain low. For instance, according to the 2017 Global Findex Survey, fewer than half of the adults who had a bank account had actually saved with a financial institution in the preceding year. Even in high-income countries where most adults (94%) had an account, more than one in 10 preferred to borrow from family and friends.

Barriers to inclusion have roots among users as well as service providers. The right-hand panel of Chart 1 highlights some of the reasons users give for not using financial services. Let me highlight the three barriers that public policy and innovation are most likely to overcome.

The first barrier is **'lack of trust'** in the financial system, and particularly in money and financial institutions. This can be due to a history of bank failures and the associated loss of hard-earned cash that people may have witnessed. Lack of trust may also reflect a lack of financial literacy. Indeed, people cannot be expected to trust something they do not understand.

The second barrier is **'high costs'**. That is, a financial service may be too expensive for some users. There are two possibilities. Either the price is reasonable, but the user is too poor to afford it. Or the price really is too high because the service provider finds it unprofitable to serve some population segments. Consider a small, low-income community. Without a critical mass of potential customers, setting up a fully staffed branch may be too costly. Even if one ignores the fixed costs, the marginal profit from serving low-income clients with narrow financial needs may be too low.

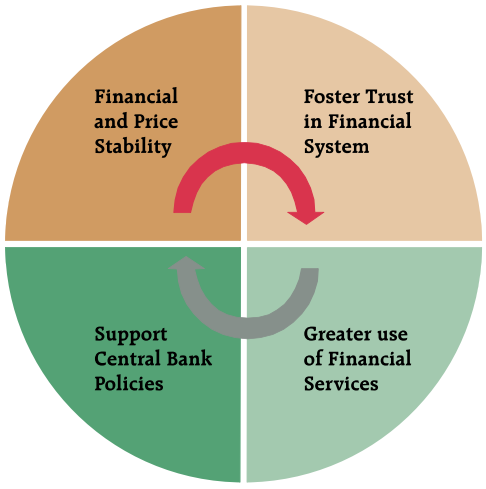
The third barrier is **'lack of documentation'**. Bank accounts cannot be opened without basic documents such as a birth certificate or identity card. Meanwhile, a blank credit record can block access to loans or insurance.

Fortunately, public policy and innovation can help to overcome these barriers. I will start with how central banks and financial authorities can increase trust in the financial system.

By fulfilling their mandates, central banks and financial authorities foster trust

By looking after their core mandates – namely price and financial stability – central bank and financial authorities can bolster trust in the financial system, thus providing the basis for financial inclusion. This link is shown by the red arrow

Chart 3: Virtuous Cycle: how a Central Bank's Core Objectives Support Financial Inclusion



Source: BIS.

in Chart 3. Fundamentally, people will not start using formal financial services if they do not trust the currency, or financial institutions such as banks, credit unions and cooperatives. Central banks can help build trust in both these dimensions. Safeguarding price stability builds trust in the currency, and a sound prudential supervision framework builds trust in institutions.

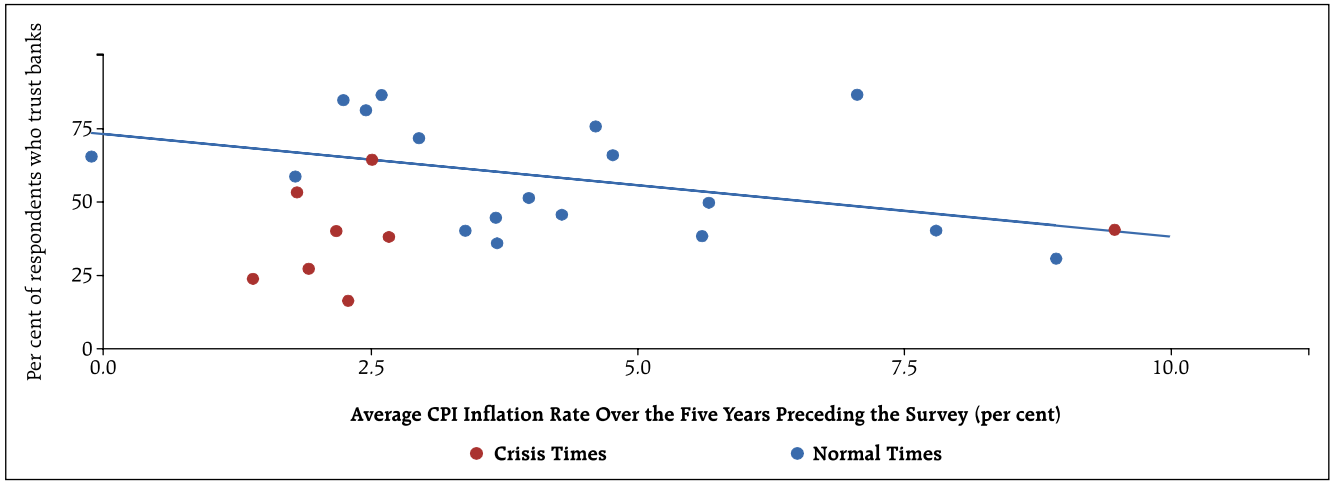
At the end of the day, trust comes down to making credible promises and delivering on them. And that trust is hard to win but easy to lose. Central banks thus need to stay fully focused on their mandates.

Let me start by commenting on why the price stability mandate matters.

First, rising prices can undermine people's trust in fiat money, even before they accelerate into the double digit range. As Chart 4 shows, trust is undermined even at 'normal' inflation rates. The so-called inflation tax weighs more heavily on the poor, whose savings are disproportionately hurt by rapid price increases.[4] The rich and more sophisticated have better access to financial instruments that hedge in some way against inflation, whereas the poor are likely to hold a larger share of cash or transactional balances that do not earn interest. Relative to the rich, the poor also depend more on state-determined income such as minimum wages or pensions that are not fully indexed to inflation.

Second, price instability can also undermine deposit and credit markets. When inflation roars, people avoid saving at fixed interest rates, because a jump in inflation would destroy the value of their

Chart 4: Confidence in Banks Rises when Inflation is Low[1]



[1] The measure of "trust in banks" is derived from the World Value Survey. The y-axis indicates the percentage of survey respondents who replied 'a great deal of confidence' or 'quite a lot of confidence' to the question: 'Could you tell me how much confidence you have in banks: is it a great deal of confidence, quite a lot of confidence, not very much confidence, or none at all?' The x-axis indicates the average CPI inflation rate over the five years preceding the survey. The red (blue) dots correspond to the countries, where there was (not) a banking crisis in the five years before the WVS survey was conducted. Sample of 26 countries surveyed over the period 2010–14.
Source: L Laeven and F Valencia, 'Systemic Banking Crises Database: An Update', IMF Working Papers, WP/12/163, 2012; World Value Survey (Wave 6); BIS.

[4] See W Easterly and S Fischer, 'Inflation and the poor', Journal of Money, Credit and Banking, vol 33, no 2, 2001, pp 160–78.

savings. On the other hand, borrowers shy away from variable interest rate loans, because high inflation means volatile inflation, and potentially higher real rates of interest, making for greater uncertainty in the repayment schedule. As savers and borrowers cannot agree on terms, the corresponding markets collapse, eroding financial inclusion. The damage can quickly spread to other financial services, such as insurance. If no one knows what the currency will be worth when future claims are paid, why would anyone buy insurance today?

Financial stability is another pillar of financial inclusion. The resilience of institutions is as important as that of the financial system. If a rural cooperative bank fails, for example, its customers may well lose faith in the system too. Such failures may stem not only from poor banking practice, but also from inadequate deposit insurance, regulation and supervision – all of which erode trust.[5] Imagine then what a system-wide crisis can do to public confidence.

Financial crises also raise borrowing costs, leading to a credit crunch and recession. The evidence suggests that banks cut their lending sharply in the wake of the 2007–09 Great Financial Crisis.[6] Credit may be cut off for some or become unaffordable for others. As a result, individuals and firms may be forced to look outside the formal financial system. In this way, financial crises further raise the barriers to inclusion.

Before moving on, let me stress that there is a two-way relationship between price and financial stability on the one hand, and financial inclusion on the other. This link is described by the grey arrow in Chart 3. Financial inclusion can help central banks and financial authorities reach their goals. With a broader base of depositors and borrowers across regions and demographics, financial institutions can better diversify their sources of funding and lending opportunities.[7] And this makes them safer.

Innovation for inclusive finance

While price and financial stability help to resolve trust-related barriers to financial inclusion, they cannot promote financial inclusion on their own. Among other factors, such as an adequate legal system, technology and innovation are needed too. Digital technology and big data, in particular, are key to overcoming the other barriers to financial inclusion, namely the high costs of financial services, and potential users' lack of documentation and credit history.

When it comes to cutting costs, web and smartphone-based financial services have proved to be most effective. From M-Pesa in Kenya to Alipay in China and PayTM in India, technology has brought financial services literally to our fingertips. First, digital technology offers the cheapest delivery channel for financial services. Second, digital networks expand the circle of users, creating positive network effects. Third, mass smartphone ownership lets financial service providers reach a huge number of potential customers (Chart 5, left-hand panel). Digital financial service platforms can thus be scaled up at virtually zero marginal cost. In China, for instance, digital payment platforms like AliPay let users seamlessly buy insurance or invest wallet balances in mutual funds. Cost reductions could also be realised in cross-border services such as remittances.

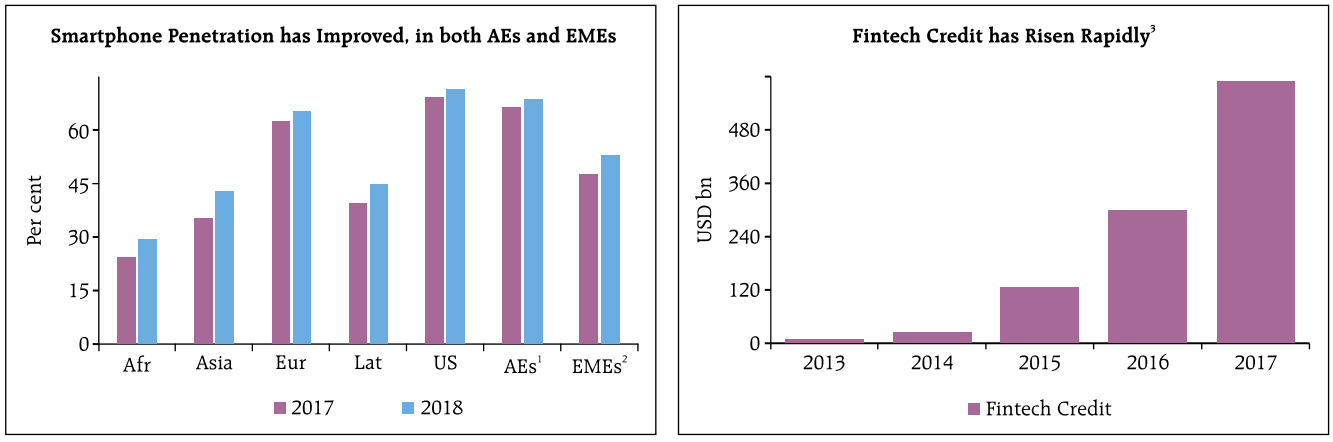
At the same time, advances in data generation, collection, and processing can overcome the problems arising from a lack of documentation or credit history among some sectors in the economy. The right-hand panel of Chart 5 shows that fintech credit has expanded rapidly on the back of these advances. Indeed, big techs – large technology firms – are already

[5] See J Rewilak, 'The Impact of Financial Crises on the Poor', Journal of International Development, 2018.

[6] See V Ivashina and D Scharfstein, 'Bank Lending during the financial crisis of 2008', Journal of Financial Economics, vol 97, no 3, 2010, pp 319–38.

[7] See O Mbutor, 'The Impact of Financial Inclusion on Monetary Policy in Nigeria', Journal of Economics and International Finance, November 2013. Also see A Mehrotra and J Yetman, 'Financial inclusion – Issues for Central Banks', BIS Quarterly Review, March 2015.

Chart 5: Digital Payments and Fintech Credit



Afr = selected African countries, based on availability; Asia = selected Asian countries, based on availability; Eur = select European countries, based on availability; Lat = select Latin American countries, based on availability.
[1] Based on availability, simple average of AU, BE, CA, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, JP, NL, NO, NZ, PT, SE, SK and US.
[2] Based on availability, simple average of AR, BR, CL, CN, CO, CZ, HK, HU, ID, IN, KR, MX, MY, PE, PH, PL, RU, SA, SG, TH,TR, TW and ZA.
[3] The bars indicate annual global lending flows by fintech and big tech firms in the 2013–17 period. Figures include estimates.
Source: J Frost, L Gambacorta, Y Huang and H S Shin, 'Big tech and the Changing Structure of Financial Intermediation', *BIS Working Papers,* no 779, 2019; Big tech companies' financial statements; Cambridge Centre for Alternative Finance and Research Partners; Newzoo.

processing data collected via their digital platforms in order to offer credit to borrowers whom banks find too risky. A case in point is Ant Financial's MYbank, which recently teamed up with a traditional bank to better serve small off-line farmers. MYbank gives farmers in rural areas QR code posters that customers scan in order to pay the farmers via Alipay. The bank then uses transaction data to score and offer credit to the farmers, who typically lack the documentation needed to access regular bank credit. In effect, 'newly created data serves as the collateral'. This represents a substantial advance in financial inclusion.[8]

Advances in biometrics-based identity programmes are also helping to break down the documentation barrier. With such advances, individuals can use their fingerprints or a retina scan to obtain an identity card. In this regard, India's Aadhaar programme is a huge asset, and one that is already delivering benefits. Via the Aadhaar-enabled Payment System, or AePS, people in rural areas with few bank branches can make deposits, withdrawals and transfers. Basically, this system allows banking correspondents to visit rural areas with a micro ATM that can verify customers' identities digitally and operate their accounts.

Innovation can pose risks too

Needless to say, there is a less benign side to new technology. One potential market failure is excessive market concentration. Once a large digital network is established, potential competitors have little scope to build rival networks and challenge the incumbent. The fixed cost of setting up a new network would be excessive. Also, dominant platforms may seek to consolidate their position by raising the barriers to entry. When a network operator owns a smartphone-based payment system, for example, it can charge potential competitors, such as banks, a connection fee that will prevent new entrants from competing effectively. Once they have a captive user base, dominant platforms can then jack up the price of their financial services. So, although new technologies cut the cost barriers to financial inclusion, market concentration can work in the opposite direction.

A second market failure arises from the control of customer data. When big tech firms – such as Ant Financial, Tencent or Mercado Libre – collect detailed

[8] G Ding, G Chong, D Kuo Chuen and T Cheng: 'From Ant Financial to Alibaba's Rural Taobao Strategy – How Fintech is Transforming Social Inclusion', mimeo, 2017.

information about their customers, they become – at least, to date – the sole owners of that data. This can be seen as a by-product of the services provided by big techs. Given that such data are free and non-rival – that is, usable by many without loss of content – it would be socially desirable to share it. But big tech firms have no incentive to do so. On the contrary, data give them an informational advantage over competitors. Using privileged data, for example, they can assess a potential borrower's creditworthiness, and even a person's reservation rate – the highest interest rate at which a borrower would be willing to take out a loan. Based on this, a big tech firm can charge higher lending rates, up to the individual reservation rates, extracting a larger share of the surplus from its customers. Proprietary control of data thus amplifies big techs' market power.

Financial innovation also creates new vulnerabilities. Criminals, notably, can exploit the anonymity conferred by some digital platforms and the absence of supervisory oversight.

Policymakers can help address the market-failures and risks posed by innovation

For financial innovation to promote financial inclusion further, its potential adverse effects must be addressed. Policymakers can play a vital role here by upgrading or providing new infrastructure, both hard and soft.

Hard infrastructure comprises the systems and utilities that support financial services. Setting up utilities such as settlement systems or agreeing on common technical standards, for example, may be beyond the capacity of market participants. Yet, such infrastructures are desirable because they can reduce transaction costs and level the playing field. When the market fails to provide for the public good, central banks and financial authorities can act as catalysts. Take India's Unified Payments Interface: this facility allows both domestic and global players to develop mobile payment applications. As such, it lowers the barriers to entry, especially for smaller firms, thus levelling the playing field.

Another way to foster competition is via regulatory sandboxes. They let innovators test their new products under regulatory oversight. Meanwhile, innovation hubs provide a forum for knowledge-sharing, competition or even fund-raising. Thus, hubs and sandboxes help to ensure a dynamic financial landscape – one that is not necessarily dominated by just a few players. They can also give regulators valuable insights into the latest financial innovation trends, which can help them design an adequate regulatory response. A sound regulatory framework can also smooth the path to market entry. Many central banks, including the Reserve Bank, are setting up such structures.

Policymakers are also responsible for the soft infrastructure, which includes the regulations, standards or programmes that guide the provision of financial services, and mitigate risks – such as those arising from the collection and use of data, fraud and money laundering.

To start with data-related issues and as an example, I would like to consider buying a book on Amazon using a credit card. Who should own the transaction data – me, Amazon, or the credit card company? Should companies be allowed to match my transaction data with personal information from my linked devices? What should they be allowed to do with such data? These are questions with both an ethical and economic angle. For instance, data ownership is already severely concentrated among a few big firms, giving them an excessive degree of market power. And, in many cases, customers are blissfully unaware of how their data are being used. Dealing with these issues is complicated by the inadequacy of existing rules.

So far, the policy response has been uncoordinated. Some countries have passed, or are considering, data privacy laws. Among these are

Australia, the EU, Singapore and Switzerland. To increase data portability and foster competition, an increasing number of countries are also adopting some form of 'open banking' requirement.[9] The core idea is that consumers should have the right to authorise a third party, such as a fintech firm, to access their financial data. The fintech firm would then use the data to offer competing financial services.

A related issue is cyber security and money laundering. An emphasis on formal financial systems and services is often viewed as crucial to addressing this type of risk. One challenge is how to effectively apply existing anti-money laundering mechanisms to digital financial services, but without hindering financial inclusion. Mexico's recent 'Fintech Law' is a good example. It adopts the 'same-risk-same-regulation' principle, and requires fintech institutions, like banks, to take all possible measures to prevent and detect transactions that involve illegally obtained resources or support the financing of terrorism.

Conclusions

Financial inclusion is the gateway to increased prosperity. Central banks play a key role simply by fulfilling their price and financial stability objectives. At the same time, innovation and technology are needed too.

Because financial innovation can have adverse effects too, it must be guided as well as supported. Policymakers can help by providing adequate infrastructure. This takes the form of both hard infrastructure such as payment systems or clearing houses, and soft infrastructure consisting of rules, regulations and standards.

Policy initiatives should be coordinated across borders, especially in the case of innovations that matter for financial inclusion. Coordination is needed because both innovation and data flow across borders. Remittance services that take advantage of new distribution channels are a highly relevant example. Remittances are an important source of income, especially in emerging market economies. Moreover, as formal remittances are cheaper than informal ones, they provide a compelling reason for individuals to be financially included. A joint study on how digital technology can enhance cross-border payments was recently published by the Bank of England, the Bank of Canada, and the Monetary Authority of Singapore.[10] Economies of scale are just one advantage of such applications.

The BIS is determined to contribute substantially in this area. Our new medium-term strategy, Innovation BIS 2025, embraces several initiatives that we hope will deliver insights into technological developments for the financial system and help policymakers use them effectively. For example, we plan to establish a multidisciplinary Innovation Hub to foster collaboration in innovation-related work. A new unit will do policy analysis and research on how innovation and increased data availability could shape the response of central banks.

The challenges posed by financial innovation show that we need to broaden our collective efforts and integrate data into policy considerations. Defining standards and deciding who should have access to data and how best to manage them are important aspects to consider. Getting the answers right could lessen the scope for regulatory arbitrage and adverse spillovers, keep markets competitive, and channel more of the benefits of innovation towards financial inclusion. International cooperation is vital to ensure that technology reshapes financial intermediation for the better.

[9] 'Open banking' is a framework under which consumers can share their own banking information with other financial service providers, such as financial aggregators or other fintech firms. In a nutshell, open banking makes personal banking data portable. On the technical side, the sharing of information is made possible by the use of publicly available APIs (application programing interfaces) that allow one application (*e.g.*, an online banking app) communicate directly with another (*e.g.*, a financial aggregator app).

[10] Bank of Canada, Bank of England and Monetary Authority of Singapore, 'Cross-border interbank payments and settlements: Emerging opportunities for digital transformation', November 2018.

Since those pioneering efforts by Governor Deshmukh and the RBI, India has made huge advances in the field of financial inclusion. The role of central bank and government policies in driving this progress cannot be overemphasised. Yes, there is more to be done. As an old proverb has it: 'We can't change the wind's direction, but we can always trim the sails'.

Thank you for your attention.

*India's Growing Significance in Global Arena. Is it Sustainable? Are We Ready for it?**

B. P. Kanungo

It is a great pleasure to be amidst you today and I wish to thank foreign exchange dealers' association of India (FEDAI) and the organisers of this conference for the privilege to speak to you. FEDAI has been playing a seminal role in steering the cross-border transactions of the members of public as well as interbank transactions in the foreign exchange market for more than six decades now. It may be recalled that FEDAI was formed to secularise foreign exchange transactions in the early days when only select branches of foreign banks were conducting these transactions. Over time, the statutory framework enjoined upon the foreign exchange dealers an additional role as authorised dealers – a role so comprehensive that they share the responsibility for administering the regulatory regime. FEDAI, as organisation of authorised(forex) dealers has played its role remarkably well and if we are expanding the set of players in the foreign exchange market today, a part of the credit goes to FEDAI in creating the necessary skill abundantly and widely in dealing with foreign exchange. I am sure it will continue to play a constructive role and help market participants grapple with the challenges that a market as prone to volatility and uncertainty as the foreign exchange market will spring from time to time.

These annual conferences since 2006 have been an important event, or should I say, the most important event that the participants in the foreign exchange market look forward to. It provides an opportunity for networking and exchange of ideas for the market participants. It also provides a welcome respite from the heat and dust of the marketplace. I cannot but commend the choice of the venue this year, particularly with a view on the theme of this year's event. China and India have been comrades-at-arms for millennia's, sharing their journeys in multiple dimensions: commercial as well as civilisational. Angus Maddison[1] estimates that India and China were the world's two largest economies until the early 18th century. China is the world's largest economy today on PPP basis and India is the third largest. If you add the exports and imports, China is India's largest trading partner (2017-18 data). Among the fastest growing economies, the engagement between the two countries can be expected to see phenomenal growth in the times to come.

The theme chosen for this conference is: India's growing significance in international arena: Is it sustainable? Are we ready for it? These are interesting and important issues and as we shall see, quite relevant to our common functional domain. Now, importance in the international sphere has many dimensions: cultural, military, moral, strategic to name a few but the dimension that underpins all others is economic. If you look at the history of mankind, it is economic prosperity that has always dictated the importance of a nation. Whether we look at the Italian city states of the 15th/16th century – many of Shakespeare's plays were situated in these places Verona to Venice – and one wonders whether the renaissance would have been possible but for the wealth and backing of the Medicci's and others, or the British of the 18th/19th century – Britain became the dominant global power for two centuries, and English became the *lingua franca*, it is the economic prosperity that made the nations internationally important. The pre-eminence of China today is to a great extent due to its phenomenal economic success.

We also must notice that economic prosperity has almost always been inextricably linked with

* Shri B.P. Kanungo, Deputy Governor, Reserve Bank of India, Speech delivered at FEDAI Annual Conference at Beijing on April 19, 2019.

[1] Maddison, Angus, 'The World Economy: Historical Statistics', 2003

international trade and commerce (capital movements are recent phenomenon). The need for free trade and commerce became important as the industrial revolution greatly increased productivity. Of course, it was not in the sense we now understand. Till middle of the nineteenth century, mercantilism was the dominant policy driver in Europe. Essentially, while it favoured exports of all commodities except gold, it sought to discourage imports through tariffs. Ultimately, with repeal of the (British) Corn Laws in 1846, the case for free trade had been decisively established. The doctrine that free trade enhances welfare has been further strengthened by subsequent research at least on a theoretical plane. Despite the fact that global economic growth and growth in global trade have moved in tandem over the past two centuries, arguments in favour of import substitution, selective protection, subsidies abound. One can perhaps reasonably conclude that while the global objective will continue to be less restrictive trade, local variations will have to be considered keeping in view other macroeconomic factors like fiscal policy, exchange rate policy, employment policy, and so on.

Unlike trade in goods and services, the case for capital flows has not been clear. We must appreciate that restrictions on capital flows were enshrined in the Bretton Woods system. However, after the breakdown of the Bretton Woods system in the early seventies, a set of strong arguments emerged in favour of free capital flows and was endorsed by the IMF. In the wake of the far eastern crisis of the late 1990's, the debate about its desirability was revived. The debate again came to life after the global financial crisis and there has been a general agreement since that – and I quote the words of Harry Dexter White, one of the principal architects of the Bretton Woods, – 'the desirability of encouraging the flow of productive capital to areas where it can be most profitably employed needs no emphasis, but there are periods when failure to manage flows have led to serious economic disruption.' Keynes was in agreement.

The reason I have dealt with the propositions relating to trade and capital flows is to bring out the point that there is no universally acceptable policy prescription relating to either. Both theory and empirics accommodate the possibility of specific sets of policy appropriate to a country's idiosyncratic requirements and it is in this backdrop that we shall consider our policies in respect of cross-border transactions, past and present.

There are several dimensions of the regime for cross border transactions: but what we shall be concerned with in this discussion is that relating to exchange control or rather foreign exchange management. The foreign exchange management policy ultimately hinges on two factors: the quantity of foreign exchange available and the exchange rate. This has guided the evolution of the exchange control regime in India, and indeed elsewhere in the world.

The war-time exchange control through administrative fiat was converted to a statutory regime in 1947 through the foreign exchange regulation act (FERA), 1947. The acute shortage of foreign exchange in the 1960's and various other factors such as food shortage, wars, *etc.*, led to a more stringent regime through the FERA, 1973. Foreign exchange *per se* was considered important and the policy regime comprised rules to grudgingly allocate foreign exchange to various demands. Import control and promotion of import substitution provided complimentary policy instruments. Beginning mid-seventies (soon after the enactment of FERA,1973 but not necessarily because of it), the situation relating to the external sector started improving primarily because of increasing remittances from Indian diaspora and impact of green revolution. Thus, through the 1980's, there was progressive and incremental liberalisation in cross border transactions, *albeit,* within the same paradigm. Two observations are in order here. First, the liberalisation in exchange control regime was not accompanied by any significant changes in other economic policies. Second, although the Bretton-

Woods regime broke down in early 1970's and many currencies started floating, the rupee continued to be in a pegged exchange-rate system, first to pound sterling and then to a basket of currencies. Thus, the foreign exchange crisis once again surfaced in early nineties. The policy response in the aftermath of the crisis this time was a comprehensive reform. As far as regulating cross border transactions are concerned, I would like to mention three landmarks: (a) adoption of a market determined exchange rate system in 1993, (b) Commitment to conform to Article 8 of the IMF charter – current account convertibility – in 1994 and (c) Enactment of foreign exchange management act (FEMA) in 1999 – removing the shackles of a repressive regime. It was a new paradigm.

We have lived through this paradigm for nigh two and a half decades now. There have been cadences in the policy regime from time to time, but the basic tenets remain the same and will continue to guide the evolution of policy framework in future. Let me draw your attention to the preamble of the FEMA, 1999 which very aptly summarises the philosophy behind how we regulate the cross border transactions. It goes: 'An Act to consolidate and amend the law relating to foreign exchange with the objective of **facilitating external trade and payments** and for promoting the **orderly development and maintenance of foreign exchange market** in India.'

As far as current account is concerned, the statute mandates that there shall be no restrictions except such that are placed by the Central Government in consultation with the Reserve Bank. The restrictions that figure in the rule-book mostly relate to some (socially undesirable) non-priority activities like gambling, transactions that can be used to dress capital accounts transactions as current account transactions, and some with strategic implications. There is also some asymmetry, in practice if not in precept, between the current account transactions that involve an outward remittance and those that involve an inward one. The regulatory framework for current account transactions has been pretty stable; I may mention in passing that transaction in services has been growing steadily in keeping with India's reputation as an outsourcing hub. While a comprehensive system for collection of aggregate statistics for compilation of the balance of payment is in place, perhaps we need to develop a system to capture transaction level data similar to that for merchandise trade to improve our understanding and guide policy action, wherever necessary.

Let me now turn to the capital account transactions. The statute provides that the Reserve Bank (and when the 2015 amendment to FEMA, 1999 is notified, the Central Government in some classes of transactions) will regulate which capital account transactions are permitted and to what extent and subject to what conditions. Partly because of this construct of the statutory provisions but mostly because of the evolving macroeconomic conditions during the past two decades, majority of the policy actions have related to the capital account.

As I mentioned earlier, starting the 1970's, and through the 1980's and well into the 1990's there was a strong advocacy of full capital account convertibility by the free market proponents. This culminated in the 1994 Madrid Declaration of the IMF to encourage the member countries to remove impediments to capital flows. However, subsequent global economic developments have modified the stance and it is now admitted that capital controls can indeed be used as an instrument for macroeconomic and financial stability. The goalpost has now shifted from convertibility, an event to capital account liberalisation, a process. This raises issues about the pace and composition of the liberalisation the drivers of which are eclectic and country specific rather than based on universal principles. Broadly, three determining factors are important: (a) the pre-conditions for opening up of capital account; (b) the cost and effectiveness of capital account restrictions; and (c) monetary policy implications of an increasingly open capital account.

Of course, the stability and orderly conditions in the forex market remains the proximate determinant of the policies relating to capital flows. In our case, while capital inflows serve the twin purposes of bridging the export-import gap and the savings-investment gap, the above considerations will determine the approach to regulation.

There are usually three preconditions for capital account liberalisation discussed: price stability, fiscal stability and stability of the financial institutions and markets. As we speak to day, achievements in respect of the stated parameters vary. The fiscal deficit at the General Government level needs consolidation. It is desirable that growth along with low inflation and fiscal prudence become well entrenched before we take quantum steps towards a more open capital account. Besides, there are signs of global headwinds, though in the distant horizons.

While the nuances of capital account liberalisation is a matter of detail, some broad policy prerogatives relating to the hierarchy of capital flows can be mentioned. First, capital flows particularly for the real sector will always have priority over flows into the financial sector. Second, equity related capital inflows will have preference over debt inflows. Within the equity flows, direct investment flows will be preferred to portfolio flows and in so far as debt flows are concerned, preference for long term debt and rupee-denominated debt – whether bilaterally contracted or through marketable securities – shall continue. You are aware of the policy changes in recent times in respect of foreign direct investment, external commercial borrowing, trade credit, *etc.* However, the changes constitute mostly rationalisation and consolidation rather than any significant change in stance.

The investment requirement of the Indian economy is and will continue to be quite large. Apart from the usual ICOR (incremental capital output ratio)-driven investment to support the desired growth, huge investments are also required for the physical and social infrastructure sector. These latter investments have their own challenges in terms of long and uncertain execution period, long payback period, *etc.* The world today is flush with long-term savings in the nature of pension funds and corpus of insurance companies, our policy regime need to be nimble and accomodative enough to direct these to productive ventures in India. We are working towards this.

Talking of the need of infrastructure sectors, we cannot help notice the emergence of a new class of investors: venture capital and private equity funds. Anecdotal reports seem to suggest that in the last few years, investment by these funds constitute about 35-40 per cent of the foreign direct investment (FDI) inflows. Important as the role of venture capital (VC) and private equity (PE) funds is as the mediator between long term investors like pension funds, insurance companies, sovereign funds, trusts, endowments *etc.*, on the one hand and potential growth industries on the other, these investments have different structural and behavioural characteristics. The current regime permits wide latitude of freedom to VC investors in select sectors perceived to be economically important but risky for normal FDI. Perhaps there is a need to consider private equity investment in its totality and see if a modulation of policy regime is warranted, including wider and innovative debt funding, hybrid instruments, *etc.* particularly in so far as they relate to priority areas such as infrastructure, non-conventional energy, health, education and other social impact areas. This is engaging our attention.

The issues relating to start-ups are extremely important. Business has evolved in ways that could not have been foreseen a short while ago. It has become a cliché to cite the examples of the largest transportation company that does not own a cab, the largest retail company that does not own a store and so on. Technology and internet have and are continuing to revolutionise the service industry. Most of the start-ups have immensely contributed

to employment generation. (Should we create a preferential FDI regime for activities with large employment potential, given the importance of employment in the economy?) The start-ups have great appetite for funds in their growing phase and lion's share of the funding has been coming through foreign investment, mostly venture capital or private equity funds. We have taken some steps in the past to facilitate fund raising by start-ups, but we will remain alive towards their evolving needs including easing the compliance burden.

What should our approach be as far as capital outflows are concerned? So far it has been almost entirely for direct investment. Moreover, there is no differentiated policy for equity and debt outflows. The policy perspective forged during the FERA days had many negative vibes. Why should capital deficit countries export capital? Shouldn't overseas investment be considered on the basis of the returns it generates? Perhaps a time has come to take relook at it. Creation of overseas assets by resident Indians goes as a credit entry in the international investment position. Therefore, rather than looking at dividend earning, there is a need to look at value enhancement. Secondly, acquisition of strategic and economic assets, eg., coalfields, oilfields, *etc.*, is a long-term priority. Thirdly, overseas investment can perhaps be seen as export, not of capital but of entrepreneurship. Lastly, overseas investment is also an important phenomenon associated with start-ups. Several start-ups, including individual entrepreneurs invest in India through a holding company overseas primarily because of the ease of raising capital in a foreign jurisdiction, whereas the economic activity is located in India, generating employment, revenue and economic value. We, along with the government of India (GoI), shall take a relook at any misgivings about regulatory regime in this regard and take necessary corrective action.

Now I come to the foreign exchange markets. I am aware that treasury professionals dealing with the forex market constitute a large part of this gathering and this is a theme with which you are closely involved. As I mentioned earlier, an orderly forex market is an important objective and also a precondition driving the evolution of the foreign exchange management regime. We have come a long way from the days of 'RBI's middle rate'. Today, the Indian forex market is pretty well developed in terms of daily turnover as well as the range of products available. Yet, it continues to be a regulated market and let us now turn to the motivation for and the future of the regulatory regime.

The forex market determines the exchange rate, an important macro-variable with implications for balance of payments, monetary policy, capital flows, and several other derived issues. Now, it is well known that in the long run the exchange rate depends on economic fundamentals like inflation, interest rates, balance of payment position, *etc.*, but in the short run there can be significant deviations in the exchange rate from the value dictated by the fundamentals. Though the exchange rate can be measured in several ways such as real effective exchange rate (REER), nominal effective exchange rate (NEER) with different combinations of currencies and different weighing schemes, my discussion will be centred around the headline INR-USD rate, which drives sentiments and decisions. The fluctuations in the exchange rate are caused by sentiments and perceptions of a host of events, some domestic and some global. As you dealers say, 'Buy the rumour, Sell the news'. We have had many such episodes. During the last one year or so the Rupee saw levels of 64 to a dollar in March 2018, depreciated to near-75 levels in October 2018 and again appreciated to 68+ levels by March, 2019 and has been trading almost flat since then. During this one year, there has not been any change in the fundamentals of the Indian economy, nor any dramatic change in the global conditions either. The cause mostly has been surge or ebb in capital flows, driven by perceptions and risk aversion or appetite. However, understanding these gyrations

in the exchange rate does not provide any solace to the policy maker: there is a response necessary lest the expectation turn to panic and bring a great deal of disorderliness in the market in its wake. The first line of defence is market interventions. But then the impossible trinity comes into play: the interventions affect the rupee liquidity and may lead to a conflict with the monetary policy stance. Sterilisation carries a cost. And sometimes, particularly when the Rupee depreciates, there is a limitation to the extent of intervention, rendering intervention strategically ineffective. The second line of defence is resorting to modulating the capital control regime: diluting or strengthening restrictions depending on whether the Rupee is appreciating or depreciating. This must be a last resort though: because while the forex market conditions can quickly reverse, the control regime must have a longer lifetime, lest decision making by economic agents is adversely affected.

The second theme I want to talk about relates to derivatives in the forex market. Derivatives evoke extreme reaction – from 'the most significant event in finance' (Greenspan) to 'weapons of mass destruction' (Buffet) or 'license to kill' (Soros). The primary purpose of derivatives is to hedge against future uncertainties. Thus, they perform economically a useful function in enabling agents to make better inter-temporal decisions. But on the other hand, they can also be used as instruments of speculation and can obfuscate risk allocation. As Garber notes, 'The problems associated with rise of derivatives stem partly from the same source as the benefits: the increased ability to separate and market risks means that some counterparties can assume riskier positions more readily than in the past.' The other part of the source of the problem with derivatives is that they can be incomprehensively complex making the risk implications opaque. In our markets, we have both linear (forwards and futures) as well as non-linear (options, exchange traded as well as OTC-over-the-counter) varieties. The later is mostly plain vanilla. For some time, complex derivatives not involving Rupee were allowed, but it led to assumption of risks not understood epitomised in the Rajashree Sugar case. Another facet of the problem is unhedged exposure. Hedging has a cost. It is the price an agent pays to convert an uncertainty to a certainty. Thus, there may be a tendency to remain unhedged and leave events in the lap of gods. Should the market conditions turn hostile, there is a mad scramble to cut loss which exacerbates the market further. Our approach has been and will continue to be to provide an agent who has exposure to the Rupee – resident or non-resident - with a range of derivative products to enable them to hedge their foreign exchange risks but expanding the range of products has to be gradual.

The discussion of foreign exchange market will not be complete without the issue of internationalisation of the Rupee. A currency is international or a reserve currency when it is held widely by non-residents and used to settle international transactions. Internationalisation of a currency has certain advantages and disadvantages as well. The main advantage lies in getting rid of the 'original sin' of inability to borrow in one's own currency which is at the root of currency crises. The disadvantage comes from the obligation of a country whose currency serves as global reserve currency to supply it to meet the global demand which may come to conflict with its domestic policies. Over the years, global investors have shown increasing interest in Rupee denominated assets – both equity and debt - traded in on-shore markets. Rupee denominated bonds, the so-called masala bonds, have also found investor appetite in off-shore markets. When Rupee assets are widely held by global investors, there will be need for rupee derivatives to hedge currency, interest rate and credit risks. It is therefore natural that there will be a need for such markets in offshore financial centres. The challenge that these markets pose is that while the on-shore derivatives market is tightly

regulated, offshore markets are beyond regulatory reach, which can lead to domestic market being affected through arbitrage during turbulent episodes. The regulatory framework will continue to strive to make the on-shore derivative markets accessible to all non-residents with a Rupee exposure.

Let me now conclude. India is among the world's fastest growing countries and is the world's third largest economy today in PPP terms. It is among the global investors' preferred destination. The Indian economy has also shown remarkable resilience against adverse global developments, if not completely decoupled from it. With increasing sustained economic growth and macro-economic stability, favourable demography and a large market, India is an important player in the global economic arena. The sustainability of its global role will depend on the sustainability of the growth momentum and stability. While this would require continuing policy response to emerging challenges in many spheres, integration with global economy will be an important factor in sustaining the growth momentum. We have to be alive to the challenges of both growth and stability and steer the policy regime relating to cross border transactions in tandem with the needs of the economy. Foreign exchange dealers or rather authorised dealers, in so far as they provide the primary interface with the customers and give shape to the developments in the forex market, will continue to play an important role.

I am sure your deliberations and discussions will be rich and fruitful. I also wish you happy vistas of this ancient yet modern city.

ARTICLES

Renewable Energy and Electricity Price Dynamics in India *

Renewable sources of energy, though still minuscule in India's overall energy mix, are nonetheless transforming the power scenario by moderating spot prices of electricity significantly. This impact is likely to magnify going forward, with the potential of altering the underlying electricity supply-demand and price dynamics significantly.

Introduction

The power generation sector in India is undergoing a transformation with the growing prominence of Renewable Energy (RE). While thermal power remains the mainstay, India's energy-mix is tilting in favour of RE whose share in total power generation has increased from 3.7 per cent in 2008-09 to 9.2 per cent in 2018-19. Further, the competitiveness of Renewable Energy Sources (RES) has improved significantly with 64 per cent reduction in price of solar energy in the last five years. These developments are altering electricity price dynamics quite dramatically - average electricity price discovered in the spot market was about 33 per cent lower than the price embedded in long-term Power Purchase Agreements (PPAs) between Distribution Companies (DISCOMs) and power producers in the last five years. At a time when most Thermal Power Plants (TPPs) are reeling under severe financial stress, falling prices are undermining their viability. Instances of DISCOMs not honouring their commitments of buying electricity under PPAs, and TPPs selling power on the spot market at below PPA negotiated prices are symptoms of this distress in the energy sector[1]. This resembles what happened to the crude oil market with the entry of shale gas. Despite a mere 1.5 per cent share in global crude oil supply, shale oil has dampened price pressures and held back new investment plans in the sector across the Organisation of the Petroleum Exporting Countries (OPEC) and non-OPEC countries.

Typically, TPPs operate with a cost structure characterised by high operating leverage –minimum load capacity in electricity generation with a fixed cost base – and, therefore, their profits/earnings is highly sensitive to the scale of capacity utilisation and revenue realised. Revenue is a function of volume of electricity sold to the grid (proxied by plant load factor) and price realised per unit of electricity, both of which are impacted by the rising importance of renewables. TPPs with a high share of capacity committed with DISCOMs through long-term contracts (PPAs) may be relatively better off, but over a longer horizon, DISCOMs may prefer to renegotiate existing contracts, including as current contracts expire. These developments carry wider ramifications, including for investment and bank lending to thermal power generation companies.

The aim of this article is to examine electricity price dynamics in India in the context of developments taking place in the RE sector. Section II discusses the stylised evidence about the increasing prominence of renewable energy and policy impetus for it. Section III delves into the evolution and functioning of electricity exchanges and price discovery mechanisms. Section IV presents the data sources, methodology and key results. Section V offers concluding observations and some policy perspectives.

II. Renewable Energy in India: Some Stylised Evidence

RES have accounted for the majority share in incremental power generation capacity for three successive years; its' share being 67 per cent between 2016-17 and 2018-19 (Chart 1a). This period is co-incident with historically low levels of

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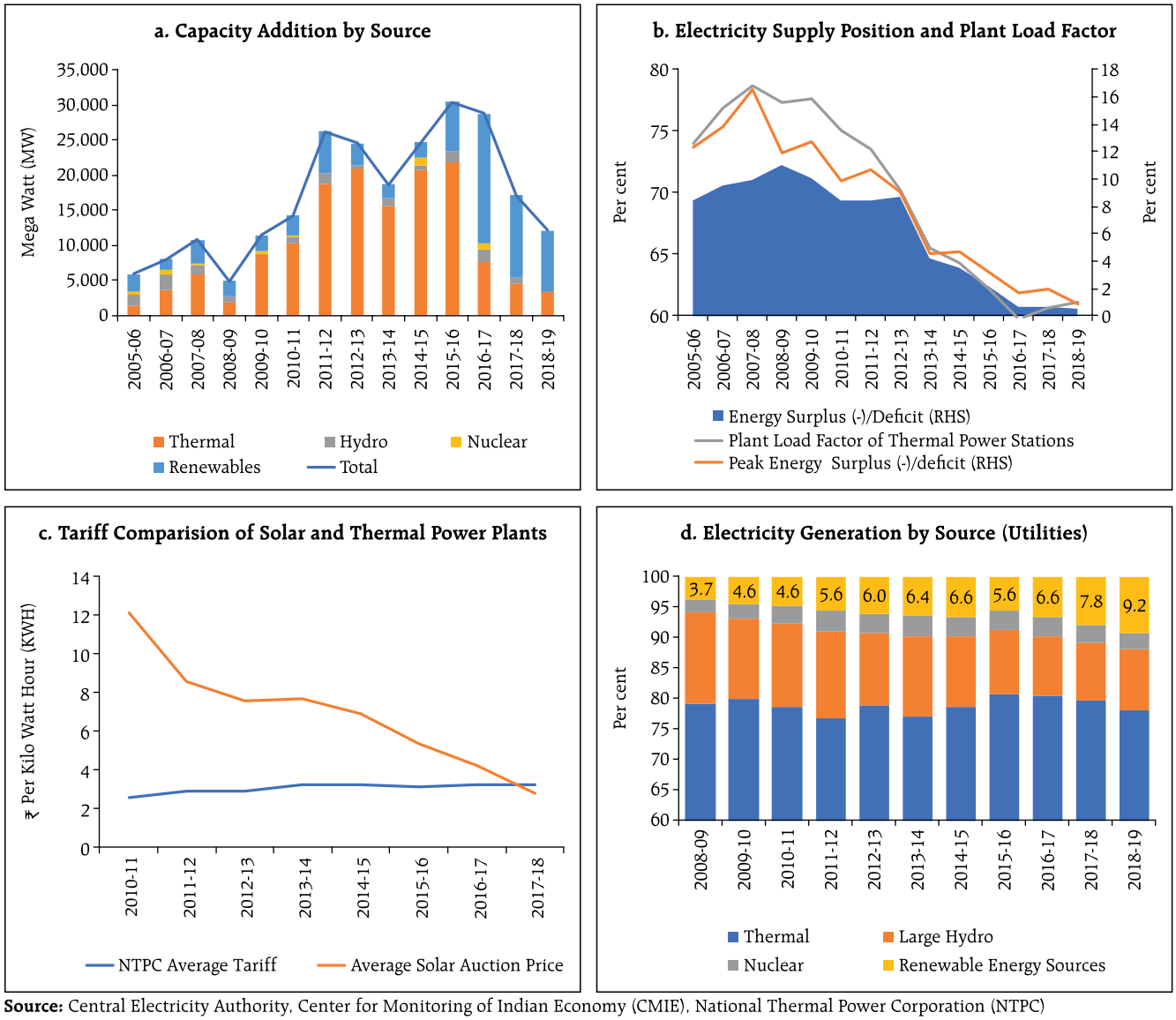
[1] *https://www.deccanchronicle.com/nation/current-affairs/011117/centre-plans-law-against-ppa-violation.html*

demand-supply mismatch and capacity utilisation of TPPs, dis-incentivising investment in additional capacity (Chart 1b). The investment in additional RES capacity is driven by its improved competitiveness *vis-à-vis* conventional thermal power, brought about by a steep decline in technology costs, particularly for solar power (Chart 1c). With the ramp-up in generation capacity, its' share in overall generation has also registered a significant rise (Chart 1d)[2].

In addition to improved competitiveness, investment in RES has also benefited from government policy impetus. Renewables are crucial to fulfilling India's strategic energy policy objectives of reducing reliance on imported fossil fuel and curbing carbon emissions to address climate change commitments under the 2015 Paris Accord and reinforced in subsequent meetings of the Conference of Parties (COP). The Paris Agreement targets to limit global temperature increase to below 2

Chart 1: Dynamics of Electricity Generation by Source



Source: Central Electricity Authority, Center for Monitoring of Indian Economy (CMIE), National Thermal Power Corporation (NTPC)

[2] The share of renewables in generation (9.2 per cent in 2018-19) is lower than their share in installed capacity (21.8 per cent in 2018-19) as renewables operate at generally lower capacity utilisation factor and, therefore, produce lower units of electricity per MW of installed capacity.

degrees Celsius above pre-industrial levels, through Nationally Determined Contributions (NDC) by the signatories. India has committed to reduce its emissions intensity of GDP by 33 to 35 per cent (from 2005 level), achieve 40 per cent share of non-fossil fuel sources in cumulative electricity installed capacity and create an additional carbon sink of 2.5 to 3.0 billion tonnes of CO2 equivalent by 2030. The Union Government announced an ambitious target of 175 Giga Watts (GW) RE capacity by 2022, which was further increased to 227 GW. India has also taken a leadership role in international cooperation for harnessing technology and finance for solar power development with the establishment of International Solar Alliance (ISA).

The policy support for RES, which had traditionally been in the form of fiscal incentives (tax breaks, accelerated depreciation) moved towards providing generation-based incentives with the introduction of the Electricity Act, 2003. In particular, Feed in Tariff (FIT) which aims at regulating the tariff at which DISCOMs enter into long term PPAs with generating companies and must-run status which guarantees despatch of generation from RES, irrespective of demand conditions. FIT was generally fixed at cost-plus levels, but as RE costs declined over time, the FIT regime is being replaced by auctions to discover tariff levels. Also, Renewable Purchase Obligation (RPO) was introduced in 2003, which mandates DISCOMs and captive power users to procure a minimum share of their power requirement from RES, thereby ensuring adequate demand for generation from RES. An alternative to FIT regime was provided with the introduction of Renewable Energy Certificate (REC) in 2010 that aims to address the mismatch between RE potential and RPO targets across states by establishing a market mechanism for trade in credit for energy purchased for RES sources[3]. However, the REC route has not gained much traction and accounted for only 5.7 per cent of total RE capacity by 2017-18, possibly due to lax compliance of RPO mandate that reduces the demand of RECs.

Recent policy initiatives are expected to provide a further impetus to the development of RES. The Central Government has increased the RPO targets from 17 per cent (of total power purchased by DISCOMs and captive power users) during 2018-19 to 21 per cent by 2021-22. With the increase in RPO targets and emphasis on adherence through creation of RPO Compliance cell by Ministry of Renewable Energy, REC route could potentially increase its share. Further, in February 2016, inter-state transmission charges[4] for solar and wind energy generation were waived off for all projects commissioned up to March 31, 2022. However, the draft National Energy Policy 2017 envisages the gradual withdrawal of must-run status and non-levy of inter-state transmission costs to achieve non-discriminatory despatch and expose these competitive technologies to market discipline.

The growth in renewables is expected to fulfill an increasing share of India's electricity demand. Over the medium-term, however, as renewable energy stabilises and strengthens, thermal power plants will have to be harnessed as demand expands with rising per capita consumption. The peak demand on grid connected power is projected to increase from 161.8 GW in 2016-17 to 225.8 GW in 2021-22 and 298.8 GW in 2026-27. While the projected increase till 2021-22 can be met through existing capacity and new additions already in the pipeline, incremental thermal capacity of 46GW is projected to be required by 2026-27 to meet the increase in peak demand (GOI, 2017)[5].

[3] Under REC, only the credit for purchase of energy from RES is traded, which can be used by the buyer to offset their RPO requirement. One REC credits the holder of the certificate with one Megawatt hour (MWH) of energy procured from RES.

[4] Unlike conventional thermal electricity projects, which can be located close to consumption to minimise transmission costs, solar and wind energy projects can only be located in suitable climatic conditions and, therefore, incur substantial transmission costs.

[5] 19th Electric Power Survey, Central Electricity Authority.

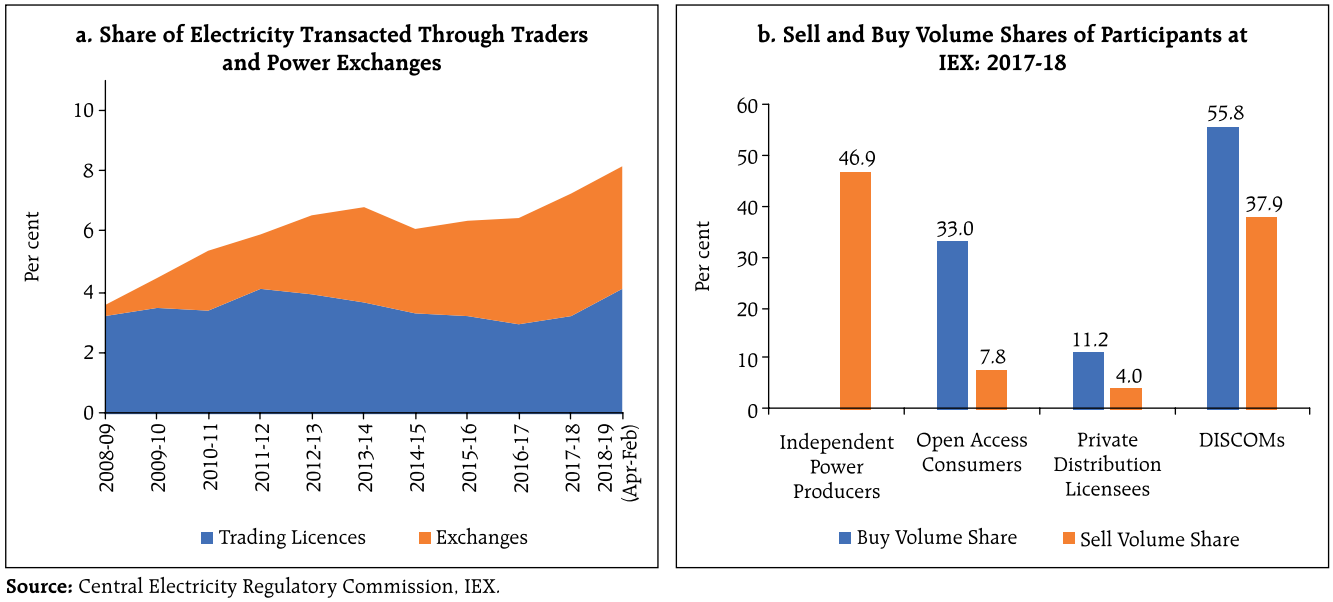
III. Electricity Price Dynamics

The Electricity Act, 2003, marked the beginning of market determined electricity price discovery. The Act provides for non-discriminatory market access for Independent Power Producers (IPPs) and recognises trading as a legal activity. Competitive price discovery was incentivised in 2008 when the government allowed power trading on exchanges. Currently, there are two power exchanges in the country – Indian Energy Exchange (IEX) and Power Exchange of India Limited (PXIL) – that commenced operations in June 2008 and October 2008, respectively. IEX commands a market share of 98.4 per cent by volume of power transacted through exchanges (in 2017-18).

These measures resulted in the proliferation of market-based short-term contracts, though long-term contracts remain the mainstay for fulfillment of bulk power requirement of DISCOMs. The share of electricity traded through short-term market instruments has increased consistently over the last decade, especially through power exchanges (Chart 2a). DISCOMs are the biggest players in the market, accounting for over half of buy side volume of electricity transacted at IEX and over one third of sell side volumes. Open access consumers also have a significant share in buy side volumes, even though their participation has been hindered by the imposition of additional surcharges and high transmission charges on purchases from power exchanges (Chart 2b).

Increased volume has been accompanied by a steep decline in the average price of electricity transacted through short-term contracts, especially through power exchanges. The volatility[6] of daily prices has also declined from over 20 per cent in 2008-09 to 11.1 per cent in 2017-18 (Chart 3a).

Chart 2: Short-term Market Transactions of Electricity



Source: Central Electricity Regulatory Commission, IEX.

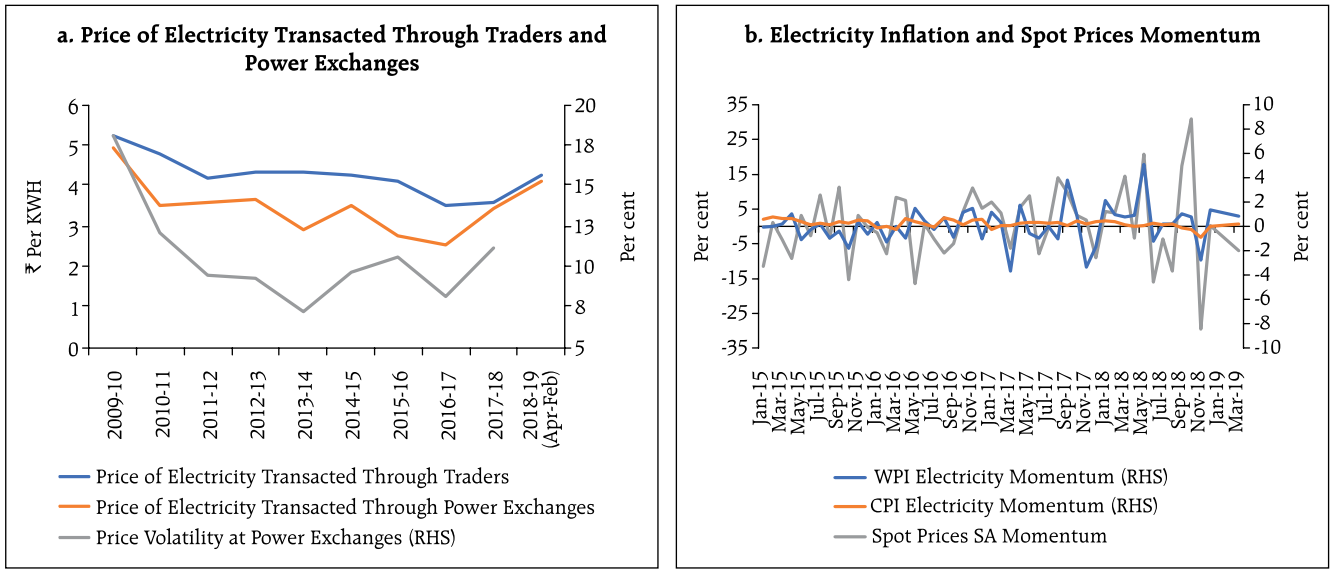
[6] Measured as standard deviation of daily prices returns,

$$\sigma = \sqrt{1/(n-1)\sum_{y=1}^{n}(\ln\frac{y_i}{y_{i-1}} - \mu)^2}$$

Where $\mu = \frac{1}{n}\sum_{y=1}^{n}(\ln\frac{y_i}{y_{i-1}})$ and Daily prices returns $= (\ln\frac{y_i}{y_{i-1}})$

Yi is price today; Yi-1 is price on previous day; Ln is natural logarithm; n is the number of observations; μ is the average daily returns.

Chart 3: Movement in Electricity Prices



Source: Central Electricity Regulatory Commission, MOSPI, Office of Economic Adviser, IEX

Trade in power exchanges is carried out in contracts based on day-ahead and term-ahead markets. Apart from physical trading, energy exchanges also facilitate trading in RECs. The day-ahead market refers to the trading window for deliveries for any time blocks (15 minutes in case of Indian exchanges) in 24 hours of the next day while the term-ahead market refers to the trading window for deliveries on a term basis for a future date (up to 11 days in the case of IEX). Similar to international exchanges, the day-ahead market dominates the volume of trade at power exchanges in India. In day-ahead markets, price calculation algorithm matches buy and sell bids for each 15-minute block. The intersection of aggregate demand and supply curves, based on bids submitted by market participants determines the market clearing price for each trading block. An increase in generation of RE impacts both demand and supply of electricity at the exchange. The demand from DISCOMs might decrease given the must-run status of RE, while the supply from IPP's to the spot market could increase given minimum load capacity of TPPs, thereby exerting downward pressure on prices.

Analysing the relationship of spot prices with other price indices, it was observed that while the administered nature of household and agricultural electricity prices results in little co-movement[7] between CPI inflation for electricity and spot prices in exchanges, there is evidence of co-movement between spot prices and the WPI inflation in electricity (Chart 3b). The co-movement between spot prices and WPI electricity inflation is partly explained by the participation of industrial firms as open access consumers in the spot market impacting their electricity input price. In contrast, even as spot prices have consistently fallen over the last five years, CPI electricity inflation remained sticky at around 3.0 per cent[8].

IV. Methodology, Period of Study and Results

Against the backdrop of these stylised facts, a quantitative estimation of the impact of RE generation on the spot price of electricity assumes critical importance for the near-term energy outlook and the prospects for energy mix in India. An Autoregressive

[7] Measured as correlation between momentum (m-o-m change) of seasonally adjusted variables.

[8] There has been unusual reduction in Electricity CPI from October 2018 contrary to accelerating trend for WPI due to increase in subsidies announced by various state governments.

Table 1: Empirical Results – Autoregressive Distributed Lag (ARDL) Framework

(Dependent Variable: Spot Price of Electricity)

Explanatory Variables	Coefficient	t-statistics	p-value
log.SpotPrice(-1)	0.53	5.16	0.00*
log.SpotPrice(-2)	0.48	4.69	0.00*
log.ThermalVol	0.83	3.35	0.00*
log.RenewableVol	-0.44	-3.42	0.00*
log.RenewableVol(-1)	0.26	2.20	0.03**
log.HydroVol	0.26	1.58	0.12#
Constant	-9.58	-2.66	0.01*
Exogeneous Variables			
log.CoalImport	-0.22	-2.06	0.04**
Ratio.Spot_Total	0.14	2.89	0.00*

Diagnostics

$\overline{R}^2 = 0.81$; SEE = 0.087; F-statistic = 32.76 (p-value = 0.00)

*: 1% level of significance; **: 5% level of significance; #: Insignificant

Where,

SpotPrice	: Seasonally Adjusted (SA) monthly average spot price of electricity volume traded/cleared in IE
ThermalVol	: SA volume of energy generated per month from thermal sources
RenewablesVol	: SA volume of energy generated per month from renewable sources
CoalImportVol	: SA volume of coal imports
HydroVol	: SA hydro electricity generated per month
Ratio.Spot_Total	: SA ratio of volume of monthly electricity traded to total generated

Source: Authors' Estimates.

Distributed Lag (*ARDL*) framework (Pesaran, 1999 and 2001) is adopted to accommodate different orders of integration - I(0) and I(1) - among the variables used. This empirical exercise uses monthly data from Central Electricity Authority (CEA) and IEX for the period April 2013 to September 2018.

The results (Table 1 and Annexure I) suggest that the volume of thermal power and RE with coal imports and ratio of volume traded at the exchange to total power generated as exogeneous variables influence spot prices of electricity in a statistically significant manner. There is robust evidence of persistence in electricity price. Thermal energy production remains a dominant influence on price formation, given that it constitutes about 80 per cent of power generation and is more expensive[9]. The results show that RE generation helped to reduce spot prices on an ongoing basis, especially, as solar power has become cheaper than conventional sources of energy, *albeit* with fluctuations in the supply[10]. The impact of hydro-electricity on spot prices is found to be statistically insignificant, possibly reflecting miniscule share in total energy mix and captive ownership by the government.

Structural Vector Auto Regression (SVAR) results also suggest that the impact of RE generation in depressing the daily average IEX spot price of electricity is significant[11]. Thermal generation imparts upside to the daily average spot price due to elevated cost of production. Impulse responses using Cholesky decomposition[12] suggest that one unit increase in RE generation leads to a peak decline of 0.1 unit in the daily average market clearing price (Annexure II). Thermal plants respond to higher renewable volumes and lower market clearing prices by reducing plant load factors and as a result, total volumes traded in exchanges decline.

V. Conclusion

This article highlights the increasing role of RE in the pricing of electricity, in spite of its low share in total power supply. Going forward, cost effective solar panels, storage technologies, and the realisation of RE capacity target of 227 GW by 2022 could potentially drive spot price of electricity down further. However, this poses a challenge for the

[9] The price of electricity discovered at IEX was ₹3.1 per KWH during 2013-18, lower than the longer term average power purchase agreements (PPAs) between DISCOMs and power producers, ranging between ₹3.9 - 4.3 per unit during the same period.

[10] The entry of RE into the spot market is miniscule due to its unpredictable nature and difficulty in forecasting. The RE firms enter spot market through four different routes. These are: (i) the REC route; (ii) as gap filling mechanism when bids are partially cleared; (iii) direct sale to end-user; and (iv) resale by DISCOMs.

[11] Empirical exercise uses daily data from Power System Operation Corporation and IEX for the period October 1, 2017 to December 31, 2018.

[12] Lütkepohl, Helmut (1991), "Introduction to Multiple Time Series Analysis", New York: Springer-Verlag.

viability of thermal power plants which are already under significant financial stress but remain essential for future energy security.

Urgent policy intervention is required to address the financial stress faced by the thermal sector currently, and to prepare the sector for the future. A key requirement in this regard will be to adapt the technology of existing power plants to operate flexibly at lower baseload capacities. The Ministry of Power constituted a task force in May, 2016 under the aegis of the Indo-German Energy Forum to recommend measures for flexibilisation of thermal power plants. Another policy option is the creation of a capacity market for electricity that functions alongside the existing electricity market in which only the maintenance of capacity is traded and explicitly remunerated. This would incentivise the backstop role of thermal capacity in the face of peak demand, while buffering against the volatility in RE generation.

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Annexure I

Renewable Energy and Electricity Price Dynamics in India - ARDL

Autoregressive Distributed Lag (ARDL) framework was chosen as the appropriate methodology to assess the price dynamics of electricity traded at spot markets during April 2013 – September 2018. Taking log of seasonally adjusted variables used in the exercise, Spot price (India Energy Exchange, IEX) as dependent variable is regressed on volume generated of thermal power, renewable energy and hydro power; in addition to including coal import and ratio of volume traded at IEX to total power generated as exogenous variables.

Thermal, renewable and hydro volumes are I(0) while spot price, coal import and ratio of volume traded to total power generated are I(1) based on the Augmented Dickey Fuller (ADF) unit root tests criteria (Table 1). The AIC test suggests appropriate lag length of two (2).

The results confirm that there is statistical evidence of renewable energy contributing to moderation in spot prices of electricity even as there is persistence in price dynamics and thermal power remained the main determinant.

The F and T-Bound tests with t-stats of 2.86, the absolute value of which was lower than the I(0) and I(1) values of 3.23 (at 5 per cent and below) and I(1) of 4.35; and that of t-Stats=-0.111 with -2.57 and -3.46, respectively for I(0) and I(1) confirmed that there was no cointegrating relationship between the variables (Table 2).

Breusch-Godfrey Serial Correlation LM Test with F-stats of 2.49 and probability F(2,50)=0.093 and probability of chi-square with probability value of 0.064, greater than 0.05 - insignificant confirms that there was no serial correlation (Table 3). The calculated variance inflation factors (VIF) of around 5 was within the acceptable limit indicating there is no multi-collinearity among the regressors.

Table 1: ADF Test of Unit Root – Monthly Data

Variables	Without trend t-statistics	With Trend t-statistics
log.SpotPrice	-2.09	-2.08
log.ThermalVol	-1.36	-5.32*
log.RenewableVol	-0.14	-3.20**
log.HydroVol	-3.42**	-3.57**
Ratio.Spot_Total	-0.67	-1.74
log.CoalImport	-2.43	-3.00

*: 1% level of significance; **: 5% level of significance;
***: Significant at 10%
Source: Authors' Estimates.

Table 2: F and T-Bounds Test
Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	2.860536	10%	2.72	3.77
k	3	5%	3.23	4.35
		2.50%	3.69	4.89
		1%	4.29	5.61
Actual Sample Size	62	Finite Sample: n=65		
		10%	2.843	3.923
		5%	3.435	4.583
		1%	4.69	6.143
		Finite Sample: n=60		
		10%	2.838	3.923
		5%	3.415	4.615
		1%	4.748	6.188
t-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	**Value**	**Signif.**	**I(0)**	**I(1)**
t-statistic	0.111304	10%	-2.57	-3.46
		5%	-2.86	-3.78
		2.50%	-3.13	-4.05
		1%	-3.43	-4.37

Source: Authors' Estimates.

(Contd...)

Table 3: Breusch-Godfrey Serial Correlation LM Test

F-statistic	2.48495	Prob. F(2,51)	0.0934
Obs*R-squared	5.505347	Prob. Chi-Square(2)	0.0638

Note: Probabilities of F-stats and Chi-square which are greater than 0.05 confirms that there was no serial correlation.

Source: Authors' Estimates.

Wald test of joint significance of the impact of RE volumes on current month's spot price, shows that the negative impact of current month RE volumes is not nullified by positive impact of previous month's RE volumes (Table 4).

Table 4: Wald Test

Test Statistic	**Value**	**df**	**Probability**
t-statistic	-2.58873	53	0.0124
F-statistic	6.7015	(1, 53)	0.0124
Chi-square	6.7015	1	0.0096
Null Hypothesis: C(4)+C(5)=0			
Normalized Restriction (= 0)		**Value**	**Std. Err.**
C(4) + C(5)		-0.17816	0.068822

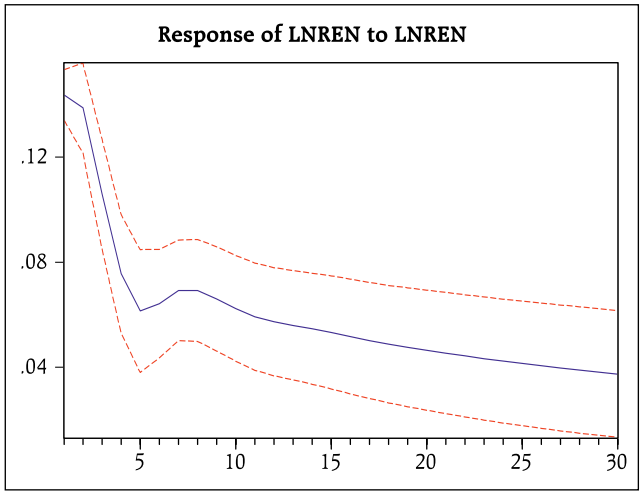
Restrictions are linear in coefficients.

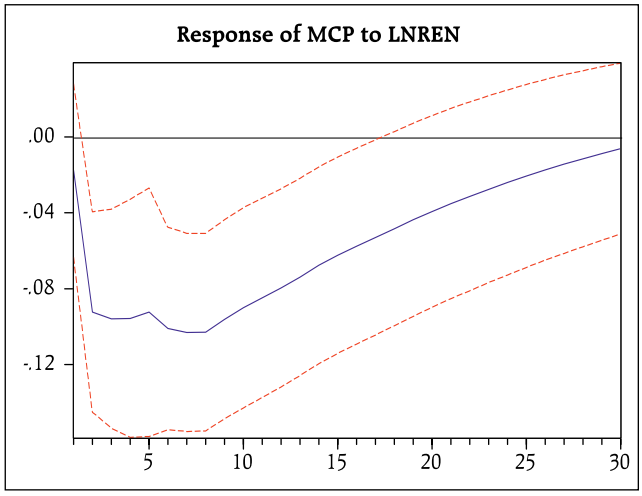
Source: Authors' Estimates.

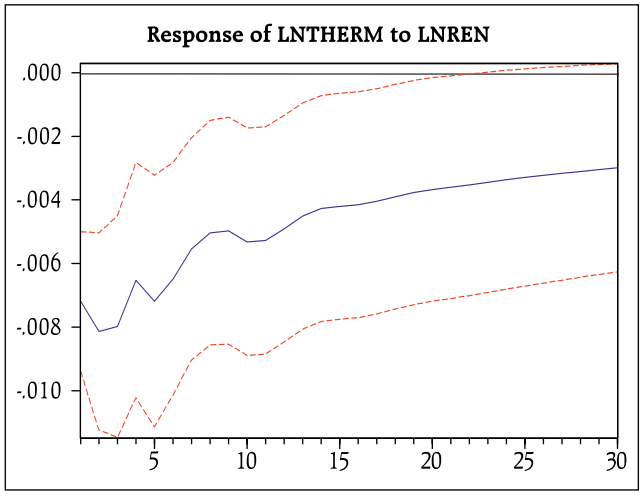
Annexure II

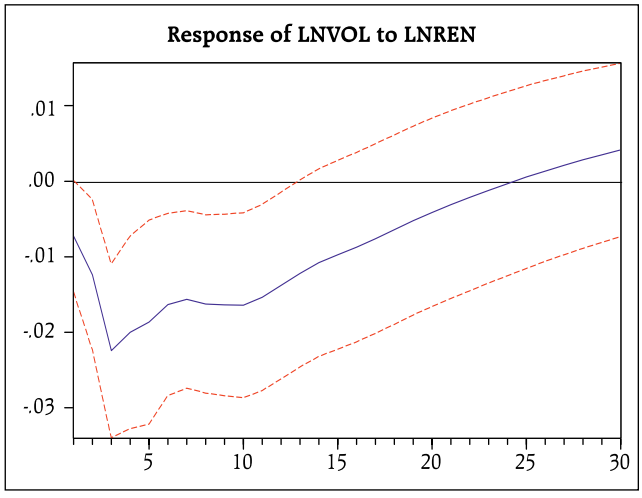
Renewable Energy and Electricity Price Dynamics in India - Impulse Response

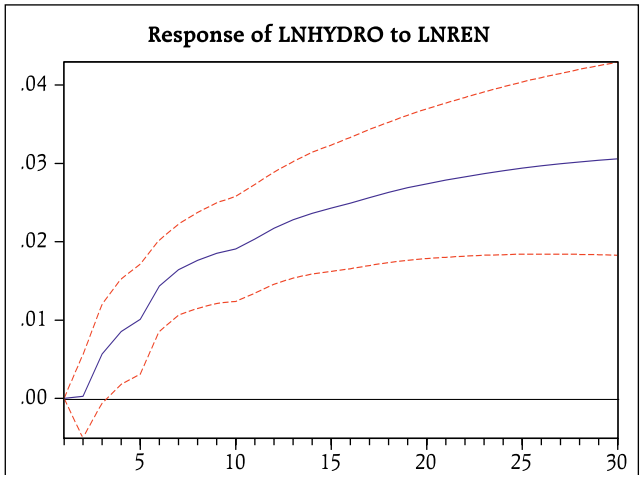
Response to Cholesky One S.D. (d.f. adjusted) Innovations ± 2 S.E.











Where,

MCP	:	Daily average market clearing price of electricity volume traded at IEX
LNREN	:	Log of renewable energy generation
LNTHERM	:	Log of thermal energy generation
LNVOL	:	Log of total volume of electricity traded at IEX
LNHYDRO	:	Log of large hydro energy generation

*Bank Deposits: Underlying Dynamics**

The slowdown in bank deposit growth in the recent period alongside a revival of credit demand raised concerns about a structural liquidity gap in the system, possibly amplified by substitution effects of small savings and mutual funds on bank deposits in the aftermath of demonetisation. Against this backdrop, this article examines cyclical swings and secular changes affecting bank deposits. Empirical results reveal that income and financial inclusion are long-term structural drivers while the interest rate and Sensex returns impact deposit growth in the short-run.

Introduction

In the recent period, there has been an animated debate around the slowdown in the growth of deposits in the banking system[1]. The issue has attracted attention in the context of revival of credit demand that has taken hold since November 2017 when bank credit growth rose to 9.3 per cent from an all-time low of 4.4 per cent in February, 2017, after a 75-month prolonged deceleration.

The widening wedge between credit and deposit growth is triggering concerns about a structural liquidity gap in the system, which can throw sand in the wheels of the financial intermediation process through which deposits are converted into productive investments by way of lending, thereby greasing the wheels of the economy. The recent narrative has focused on the shortage of loanable funds and the upside it has imparted to the cost of funds at a time when domestic economic activity appears to be losing momentum, as reflected in incoming data on high frequency indicators of demand and output.

Outstanding deposits of scheduled commercial banks (SCBs) at ₹1,25,726 billion as on March 31, 2019 accounted for 128.7 per cent of outstanding bank credit (lower than 132.5 per cent a year ago), reflecting the tightening of financial conditions on account of low deposit growth. To provide some perspective to the recent concerns, bank deposits remain the preferred financial asset of households which are the main sources of suppliers of funds to the economy, despite the emergence of alternative financial savings options with relatively high net returns (including tax incentives). Assured returns, liquidity and safety are factors that impinge upon households' choice of financial instruments. At the same time, sustained efforts by the Reserve Bank of India (RBI) and Government towards financial inclusion have expanded the supply of deposits by bringing hitherto unbanked households into the formal financial system.

Accordingly, this article explores the questions: are there substitution effects *vis-à-vis* small savings and mutual funds playing out or is there a secular process of disintermediation underway that could profoundly alter the contours of India's bank-dominated financial system and the process of financial intermediation as we have known it so far. The question assumes importance in the context of potential shifts in banking habits of people and balance sheet adjustments by banks in the aftermath of demonetisation. The article argues that disentangling cyclical swings and structural or behavioural changes in households/banks is important as it could have significant policy implications.

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* This article is prepared by Shri Harendra Behera and Shri Dirghau K. Raut, Department of Economic and Policy Research, and Smt. Arti Sinha, Department of Statistics and Information Management, Reserve Bank of India. The views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

1 The Economic Times, May 4, 2018: 'Growth in Bank Deposits Falls to Five Decades Low'; Financial Express, September 10, 2018: 'Matter of Concern: Bank Deposit Growth Lags for a Year'; Live Mint, January 10, 2019: 'Bank Loan Growth Picks up Pace even as Deposits Stagnates'; Financial Express, March 22, 2019, 'Your Money: Why Bank Deposits are no Longer a Favourite with Investors'

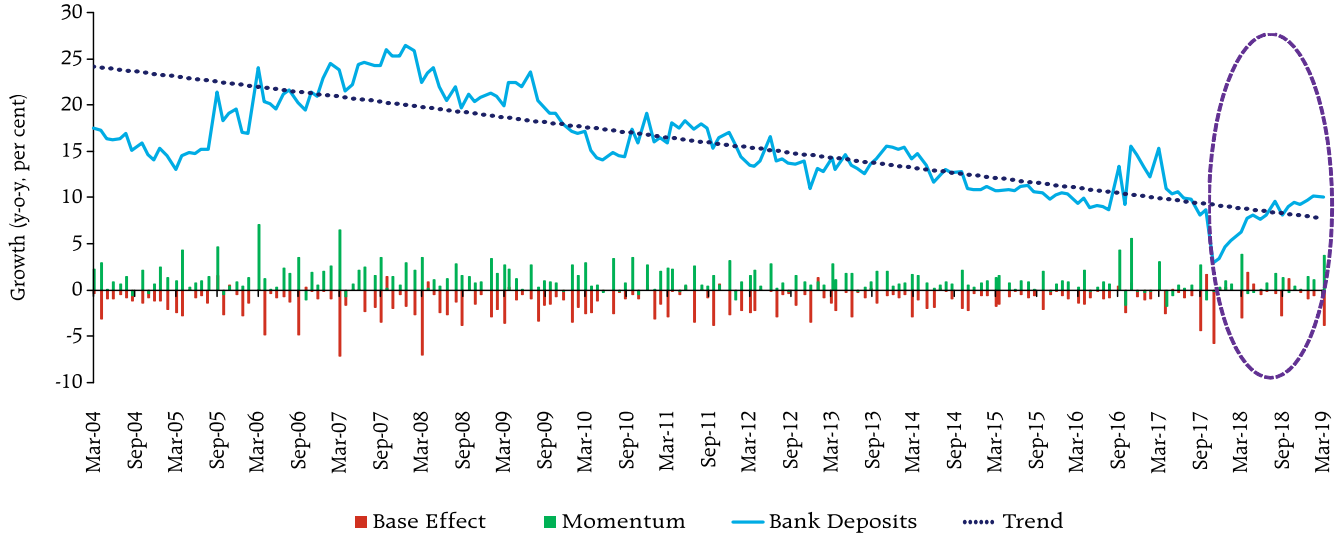
The rest of the article is organised into three sections. Section II, which immediately follows, presents stylised facts on deposit mobilisation by bank groups and types of accounts and maturity, and behavioural aspects of other financial assets in financial savings of households with a view to separate out transitory influences from underlying long-term determinants of deposit behaviour. Section III sets out the methodology used, the period of study and a description of the empirical results. Section IV concludes the article with some policy perspectives.

II. Some Stylised Facts

In the literature wherein bank deposits are typically considered as a function of the deposit interest rate and income, although other factors are also being considered more recently. Generally, a positive relationship between the bank branches and bank deposits has been confirmed, making the case for bank branch expansion in unbanked areas to increase deposit mobilisation (Mashamba *et al.,* 2014). Returns on the Sensex, inflation and the interest rate on public provident funds (PPF) have been found to negatively impact the growth of time deposits (Das *et al.,* 2015; Behera and Yadav, 2019). Recent work has also focused on changes in deposit behaviour due to demonetisation's channelisation of financial savings to capital markets (Singh, *et al.,* 2017), and the shifts it induced in households' preferences from term deposits to savings deposits (Saxena and Sreejith, 2018).

Contrary to the widely held perception of slowing deposit growth, there has been an acceleration building up from the beginning of 2018, after a 53-year low of 3 per cent in November 2017. At end-March 2019, deposit growth at 10 per cent was, in fact, marginally higher than its 15-year trend (Chart 1). Moreover, the decomposition of year-on-year deposit growth shows that the recent acceleration is driven by momentum, despite unfavourable base effects (red bars). Notwithstanding this improvement, it is noteworthy that the recent pick-up is occurring against the backdrop of a secular deceleration that has set in since August 2009, barring the demonetisation-driven spike during November-December 2016.

Chart 1: Aggregate Deposits of SCBs - Base and Momentum Effect



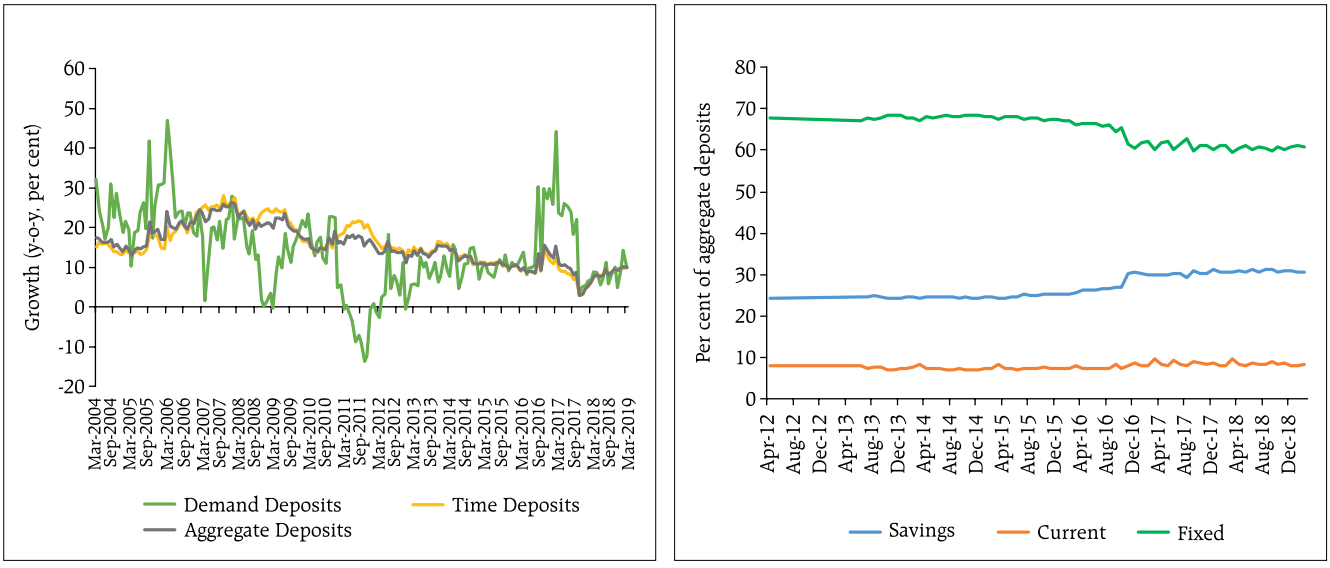
Source: RBI.

Typically the deposits collected by banks are classified into current, savings and fixed deposits[2]. A savings deposit is a hybrid product which combines the features of both a current account and a term deposit account. All deposit liabilities payable on demand such as current account deposits and the demand component of saving bank deposits are covered under demand deposits. Time deposits of banks include fixed deposits and the time component of saving bank deposits. Over the years, the share of demand deposits in aggregate deposits has declined while that of time deposits has increased. Time deposits account for around 88 per cent of aggregate deposits, and it is observed that the pattern of aggregate deposit growth is predominantly determined by the behaviour of time deposits (Chart 2). On the other hand, demand deposit growth is volatile, presently in consonance with variation in currency with the public with which substitution effects are at work.

In terms of bank groups, deposits mobilised by public sector banks appear to be the prime mover of aggregate deposits. Both private and foreign banks are sharing the recent pick up in deposit growth, with foreign banks posting a smart upturn from a contraction in October 2011 and private banks appearing more resilient, with the pick-up in their deposit growth having commenced from September 2013 (Chart 3). All categories of banks also display a similar secular slowdown in deposit growth; although for private banks, the deceleration in trend is flatter. Thus, it suggests that aggregate deposits are predominantly mirroring the behaviour that of time deposits of public sector banks.

Close co-movement is visible between variations in deposit growth and in the interest rate[3] – a downward slide till November 2017 and an upward movement thereafter (Chart 4). The closest co-movement is observed between deposit growth and nominal GDP growth as evident from increasing

Chart 2: Deposits by Type

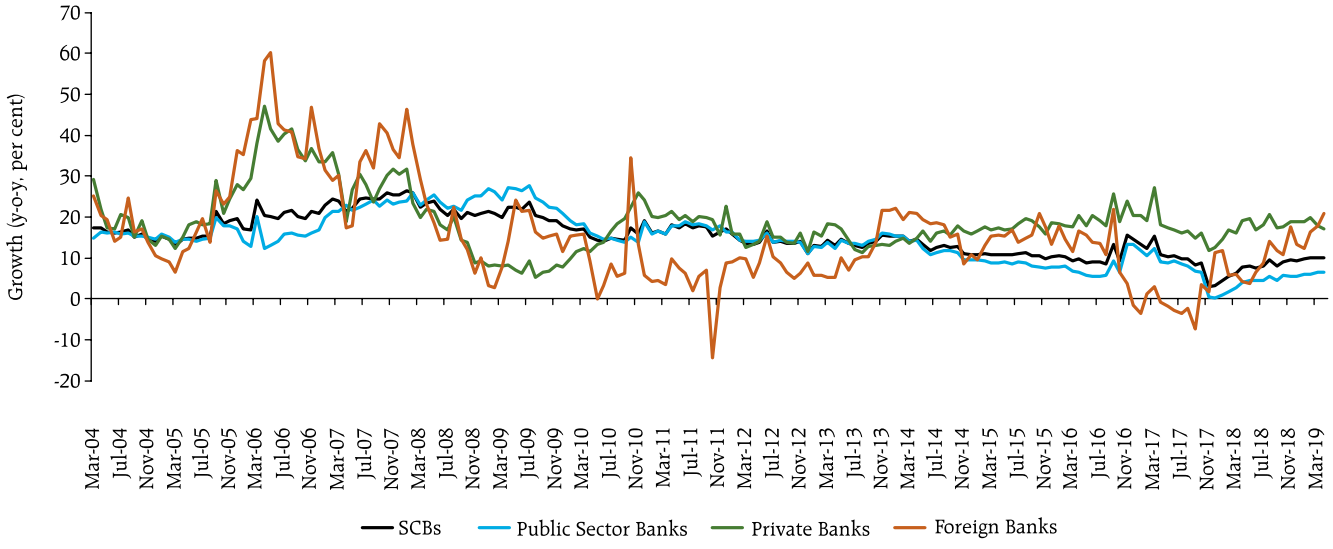


Source: RBI.

[2] Current deposits comprise of balances in current accounts and other deposits payable on demand. Savings deposits are subject to the restrictions as to the number of withdrawals as also the amounts of withdrawals permitted by the bank during any specified period. Term/fixed deposits are deposits received by the bank for a fixed period and which are withdrawable after the expiry of the said fixed period. Demand deposits includes current deposits, demand portion of savings deposits.

[3] Weighted average term deposit rates where the weights are based on outstanding deposits in different maturities.

Chart 3: Aggregate Deposits: Bank Group-wise



Source: RBI.

trend during 2003-08 and slowing down since then. The co-movement of deposit growth with the growth of nominal GDP is stronger than with the deposit interest rate, suggesting that income effects are more powerful than price effects in driving deposit growth.

Besides income and the interest rate, mobilisation of deposits seems to be affected by substitution effects emanating from small savings, although there appears to be positive co-movement in the more recent period, suggesting reduction of interest rate differentials. In the long-term, both deposit growth and small saving share common downward trend. Incentives in the form of income tax treatment available for small saving schemes drives competition between bank deposits and small savings (Annex I). In the long run, this competition fades away in view of limits of tax concession for small savings, particularly on PPF, which are revised from time to time generally in sync with investment limits under Section 80C of the Income Tax Act. As mentioned earlier, innovations in financial saving instruments available to investors providing both safety and returns appears to have resulted in diversification of financial assets. Consequently, there has been growing popularity of mutual funds and other stock market instruments and a waning of the traditional preference for physical assets such as real estate and gold. Consequently, opposing movements between Sensex returns and deposit growth are indicative of substitution effects.

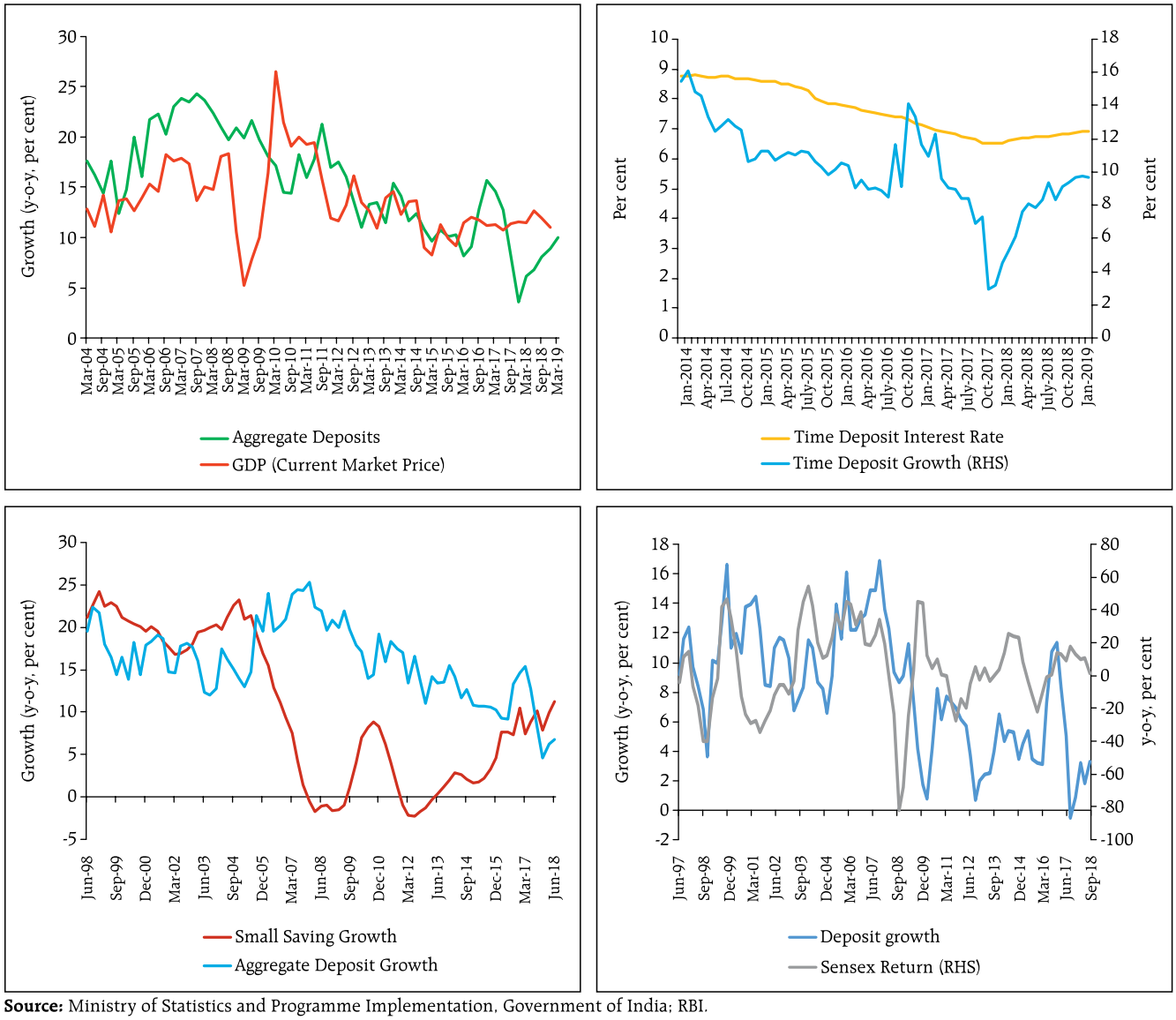
III. Data, Period of Study, Methodology and Results

Data on bank deposits are available at monthly frequency from 1951, but the broad consumer price index for industrial workers (CPI-IW) is available from January 1960. Therefore, a series on real deposits can be calculated from the later date by deflating nominal aggregate deposits by the CPI-IW. However, limitations in data availability on other variables such as small savings and bank branches, restricts the period of study to quarterly data from June 2006 to September 2018.

Structural breaks in the pattern of y-o-y growth of aggregate deposits have been identified by using

[4] Bai-Perron test is considered to be superior than other forms of structural break tests as it is able to identify multiple structural breaks occurring at unknown dates.

Chart 4: Proximate Co-Movements

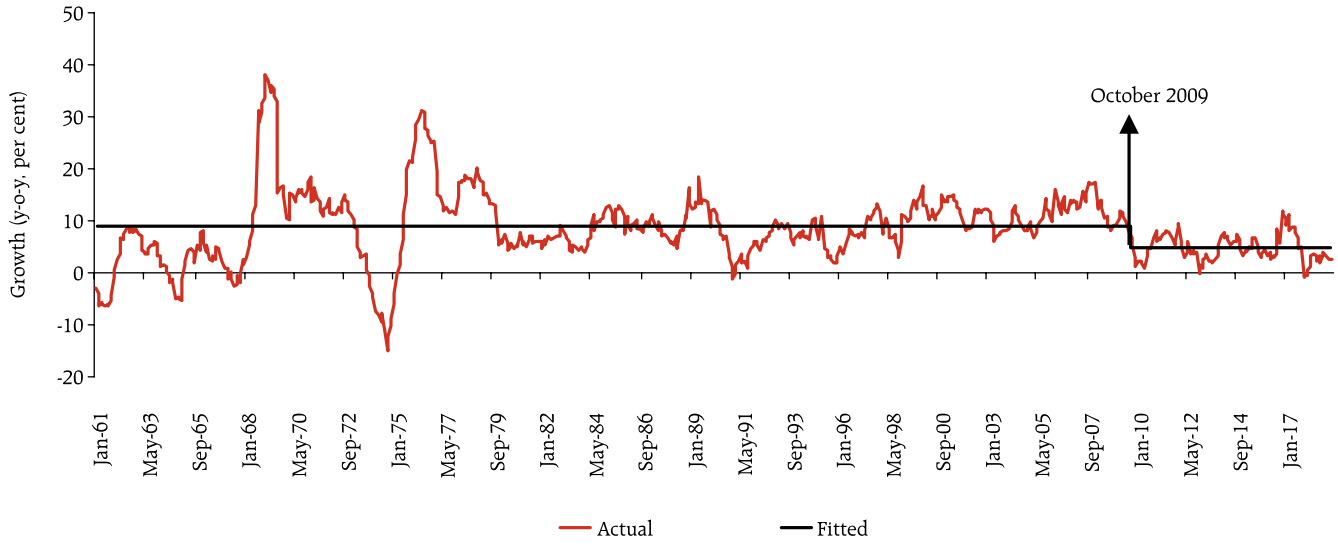


Source: Ministry of Statistics and Programme Implementation, Government of India; RBI.

the Bai-Perron test[4] (Bai and Perron, 1998). In terms of growth rates, deposit behaviour underwent a major structural break in October 2009 (Chart 5). The break in 2009 may be indicative of deceleration in trend GDP growth. In November 2016, demonetisation produced a transient spike in deposit growth but there was no statistically significant structural break. Further, this spike in deposit growth was of lower amplitude than the surge related to bank nationalisation in July 1969.

In order to differentiate between secular and short-run reversible forces underlying the slowing down of deposit growth, seasonally adjusted aggregate deposits in levels are decomposed into trend and cyclical components (Chart 6). Turning point analysis (based on Harding and Pagan, 2002) reveals the duration of the cycles to be around 37 months on average, with no notable turning points except demonetisation in November 2016, presumably reflecting the underlying business/economic cycles.

Chart 5: Structural Breaks in Deposit Growth

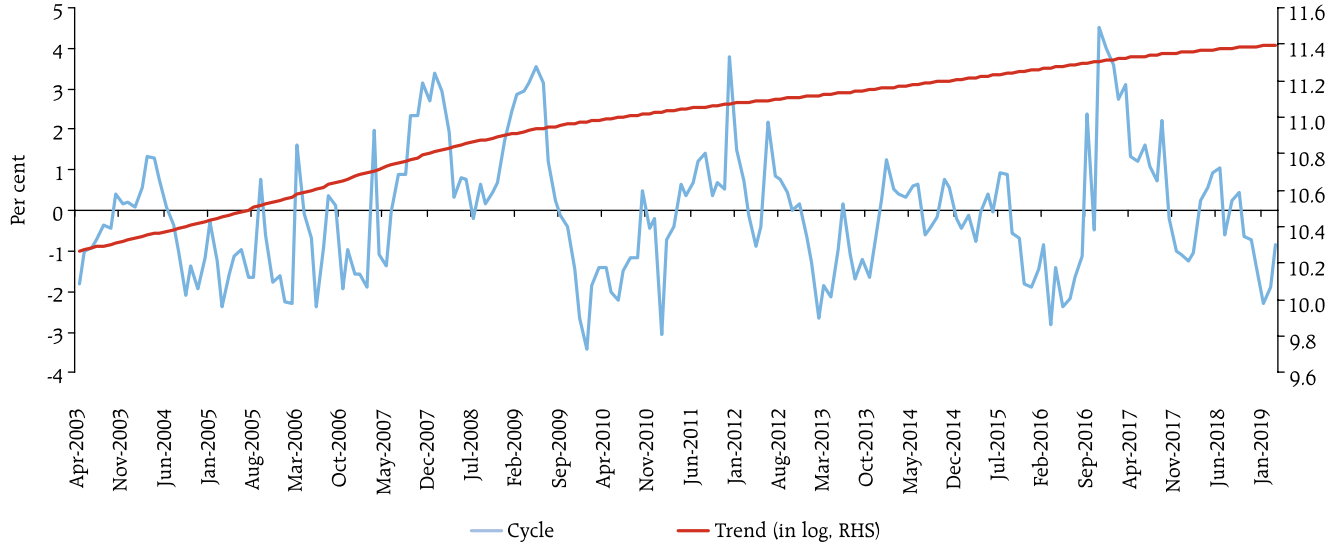


Source: Authors' Estimates.

Accordingly, deeper analysis of deposit behaviour and its association with underlying macroeconomic and financial variables is warranted.

In the next step, the existence of a long-run co-integrating relationship between seasonally adjusted (sa) deposits and proximate determinants such as GDP (sa), the weighted average time deposit interest rate, small savings (sa), and returns on alternative financial instruments such as mutual funds proxied by the Sensex, and financial inclusion represented by the number of bank branches (sa) is explored. The structural break in October 2009 and the demonetisation shock are captured by dummy variables. In view of the time series properties of the

Chart 6: Aggregate Deposits: Trend and Cycle



Source: Authors' Estimates.

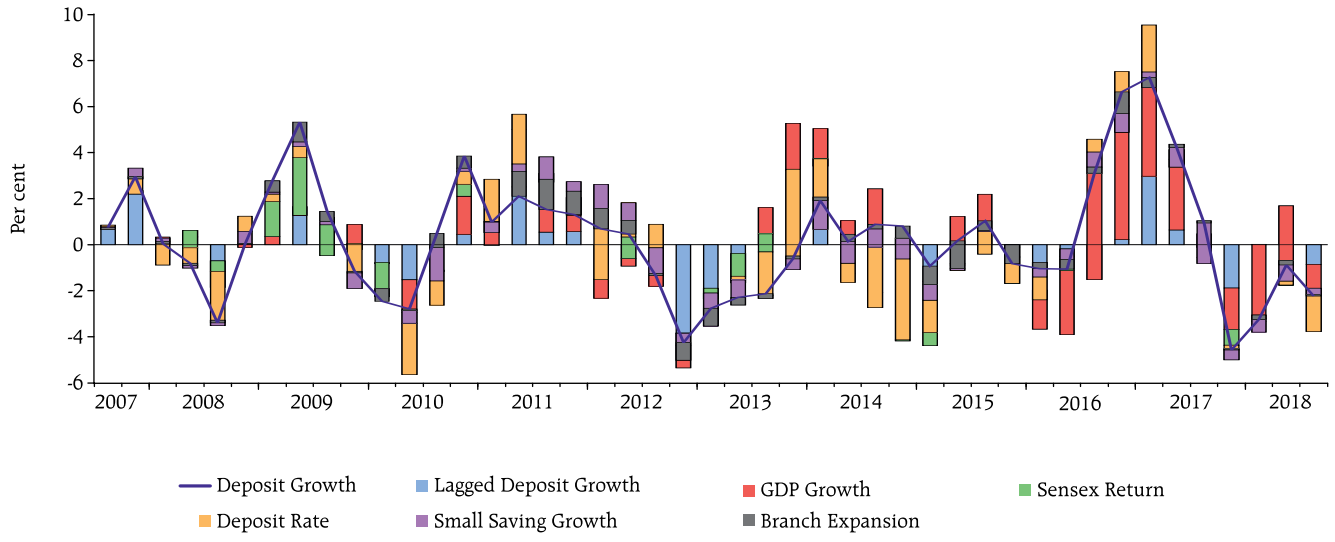
data revealing a combination of stationary and non-stationary variables among those chosen for analysis, the autoregressive distributed lag (ARDL) model (Pesaran and Shin, 1998) has been applied to obtain long-run and short-run coefficients of the proximate determinants of bank deposits (Annex II).

The ARDL model uses the lag length criteria prescribed by the adjusted R-squared approach. Bounds test results that confirms the existence of a long-run relationship between the variables referred to earlier. While the long-run cointegration seeks to explain the secular behaviour of deposits, cyclical movements can be studied *via* the error correction model (ECM). All the explanatory variables except Sensex returns are found to be statistically significant in the long-run. Real GDP is found to be positively associated with deposits and turn out to be the most powerful determinant. This importance of GDP is on expected lines, given the high savings propensity of the Indian economy. Small savings collections emerge as the next most important determinant, suggesting that in the long-run, income drives both deposits and small savings, and the limit on tax incentives for small savings enables households to undertake both out of their income. Bank branches defined as quarter-on-quarter variations in the number of commercial bank branches are the third most significant driver of deposit behaviour, indicating that positive effects of financial inclusion accrue over a period of time. The weighted average domestic term deposit rate is found to be positively associated with deposit mobilisation, indicative of some interest rate sensitivity even though its impact is marginal. The returns on Sensex, the variable controlling for investor preference for other financial instruments such as mutual funds, is found to have the expected negative sign but the coefficient is not statistically significant. The dummy variable taken to control for structural break in October 2009 is statistically significant.

The error correction term in the short-run equation is found to be statistically significant and has the expected negative sign. The size of error correction suggests that the adjustments to a shock and return to the long-run equilibrium is complete within two quarters. The income elasticity of deposit growth is 0.85, turning out to be the most relevant determinant in the short-run as well. On the other hand, small savings collections drag down deposit growth with substitution effects. Among other determinants, the coefficient on bank branch has a positive sign but of a much lesser magnitude than its long-term coefficient, reflecting the impact of financial inclusion on deposit mobilisation as being a longer-term phenomenon. The coefficient of Sensex returns, which is insignificant in the long-term, is significant in the short-run pointing to diversion of financial savings from deposits to stock market assets in the more recent period. The dummy used for demonetisation is found to be positive and statistically significant, reflecting the surge in deposits post withdrawal of Specified Bank Notes (SBNs) in November 2016.

To understand the contribution of various factors to deposit growth at each point of time, a vector autoregression (VAR) model is estimated using y-o-y growth of variables used earlier in ARDL model. The historical decomposition of shocks to deposit growth from VAR computed using generalised weights provides the evidence that deposit growth is mainly driven by income and deposit interest rates in recent years (particularly since 2013). Substitution effects of small savings is found frequently while that of Sensex returns is observed occasionally (Chart 7).

Chart 7: Historical Decomposition of Deposit Growth



Source: Authors' Estimates.

IV. Conclusion

Bank deposits remain an important part of the financial savings of households and key to the financing of bank lending. Deposit growth is picking up in recent months in a cyclical upturn since December 2018, which is overwhelming a trend slowdown that has been underway since October 2009. The latter warrants policy consideration since deposit mobilisation is fundamental to India's bank-based system of financial intermediation. Empirical evidence puts forward several interesting facts about the behaviour of bank deposits. First, it underscores the income as its most important determinant, both in the short-and in the long-run. Second, interest rate matters for deposit mobilisation but only at the margin. Third, financial inclusion has a boosting effect on deposit mobilisation over the long-run suggesting expansion of bank branches in unbanked areas. Fourth, substitution effects associated with Sensex returns for deposit growth are limited to the short-run, warranting a careful appraisal of regulatory reforms and tax arbitrage, even as efforts need to be intensified to make both more market determined. Finally, similar to Sensex return, small savings substitute bank deposits in the short-run but supplement deposits in the long-run, reflecting that limits on income tax exemption eventually evens out substitution effects and allow income to be the key determinant of both in the long-run. In the final analysis, therefore, accelerating the rate of growth of the economy and disposable incomes holds the key to higher deposit mobilisation by the banking system.

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Annex I: Tax Treatment on Saving Instruments

Saving Scheme	Principal	Interest Income	Capital Gain
Bank Deposits			
1. Saving Deposit	X	Up to Rs. 10000	NA
2. Fixed Deposit	√ (≥ 5 year maturity)	X No TDS upto Rs.40000	NA
Postal Savings			
1. Saving Deposit	X	Up to Rs. 10000	NA
2. Term Deposit	√ (≥ 5 year maturity)	X	
PPF	√	√	
NSC	√	√	
KVP	X	X	
Sukanya	√	√	
NPS	√	√	**Taxable to the extent of 40%**
Mutual Fund			
Long Term			
Equity/Hybrid (>1 year)	√ (ELSS with lock in 3 years)		√ (10% tax after ₹1 Lakh)
Debt (> 3 years)	X		X (LTCG 20%)
Short Term			
Equity/Hybrid (<1 year)	X		X (STCG 15%)
Debt (<3 years) including MMMF	X		X

√ : Tax Exemption/Incentive X: No Tax Exemption/Incentive NA: Not Applicable
ELSS: Equity Linked Saving Schemes LTCG: Long-term Capital Gain Tax STCG: Short-term Capital Gain Tax
Sukanya: Sukanya Samriddhi Account

Annex II: Empirical Results

ARDL Model

ARDL regression, as proposed by Pesaran and Shin (1998), is estimated using data from Q2:2006 to Q3:2018.

$$\Delta deposit_t = \psi(deposit_{t-1} - \beta' x_t) + \sum_{i=1}^{p-1} \propto_i^* \Delta deposit_{t-i} + \sum_{j=0}^{q-1} \delta_j^{*'} \Delta x_{t-j} + \varepsilon_t$$

Where deposit is the natural logarithm of seasonally adjusted real aggregate deposits and ψ is the error correction term. x_t is the vector of explanatory variables *viz.,* GDP, deposit rate, Sensex returns, small savings collections and bank branches. All the variables are in real terms.

ARDL Model Estimation Results

Variables	(Period: Q2:2006 to Q3:2018)	
	Co-efficient	t-statistics
Long- Run		
Error Correction Term	-0.709	-8.48***
Constant	-4.976	-2.80***
GDP	0.958	10.99***
Dep_rate	0.005	1.98*
DSensex	-0.0002	-1.38
Small_savings	0.452	3.65***
Dbranch	0.066	3.31***
D2009Q4	0.076	3.45***
Short -Run		
D(AD)	-0.363	-3.25***
D(GDP)	0.847	5.01***
D(GDP(-1))	-0.536	-3.08***
D(DSensex)	-0.0003	-4.22***
D(small_savings)	0.225	1.74*
D(small_savings(-1))	0.052	0.36
D(small_savings(-2))	-0.588	-4.06***
D(Dbranch)	0.001	2.33**
Demon	0.045	5.68***
Adj R^2	0.78	
D-W Statistics	2.47	
LM(8)- P-value	0.14	
ARCH(8)- P-value	0.88	

AD : Natural logarithm of seasonally adjusted aggregate deposits
GDP : Natural logarithm of seasonally adjusted real GDP
Dep_rate : Weighted average term deposit rates
DSensex : Quarterly difference between Sensex (in natural logarithms) at time 't' and time 't-1'.
Small_savings : Natural logarithm of seasonally adjusted real small saving collections
Dbranch : Quarterly growth in bank branches.
D2009Q4 : Dummy for structural break in October 2009
Demon : Dummy for demonetisation

Note: ***, **, * indicates level of statistical significance at 1 per cent, 5 per cent and 10 per cent, respectively.
Source: Authors estimates/calculations.

Bounds Test Results

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	**Value**	**Signif.**	**I(0)**	**I(1)**
F-statistic	8.88	10%	1.99	2.94
k	6	5%	2.27	3.28
		2.50%	2.55	3.61
		1%	2.88	3.99

Structural Break Test Result

Dependent Variable: Deposit Growth
Sample (adjusted): 1961M01 2019M03
Included observations: 699 after adjustments
Break type: Bai-Perron tests of L+1 vs. L sequentially determined breaks
Breaks: 2009M09
Selection: Trimming 0.15, , Sig. level 0.05

Variable	Coefficient	Std. Error	t-Statistic	Prob.
	1961M01 - 2009M09 -- 585 Observations			
C	8.96	0.75	12.00	0.00
	2009M10 - 2019M03 -- 114 Observations			
C	4.60	0.52	8.86	0.00

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

Contents

Notes: .. = Not available.

– = Nil/Negligible.

P = Preliminary/Provisional. PR = Partially Revised.

No. 1: Select Economic Indicators

Item	2018-19	2017-18		2018-19	
		Q2	Q3	Q2	Q3
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	6.8	6.6	7.3	6.8	6.3
1.1.1 Agriculture	2.7	4.5	4.6	4.2	2.7
1.1.2 Industry	7.2	7.7	8.0	6.1	6.1
1.1.3 Services	7.6	6.5	8.0	7.6	7.6
1.1a Final Consumption Expenditure	8.4	6.3	5.8	10.0	8.1
1.1b Gross Fixed Capital Formation	10.0	9.3	12.2	10.2	10.6
	2018-19	**2018**		**2019**	
		Feb.	**Mar.**	**Feb.**	**Mar.**
	1	2	3	4	5
1.2 Index of Industrial Production	-	6.9	5.3	0.1	-
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	10.0	5.4	6.2	10.0	10.0
2.1.2 Credit	13.3	10.8	10.0	14.7	13.3
2.1.2.1 Non-food Credit	13.3	11.1	10.2	14.6	13.3
2.1.3 Investment in Govt. Securities	1.8	2.7	9.5	-1.2	1.8
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	14.5	39.3	27.3	16.5	14.5
2.2.2 Broad Money (M3)	10.5	9.9	9.2	10.8	10.5
3 Ratios (%)					
3.1 Cash Reserve Ratio	4.00	4.00	4.00	4.00	4.00
3.2 Statutory Liquidity Ratio	19.25	19.50	19.50	19.25	19.25
3.3 Cash-Deposit Ratio	5.1	4.8	5.1	4.7	5.1
3.4 Credit-Deposit Ratio	77.7	74.9	75.5	78.1	77.7
3.5 Incremental Credit-Deposit Ratio	99.8	166.0	117.3	123.5	99.8
3.6 Investment-Deposit Ratio	26.9	30.8	29.0	27.6	26.9
3.7 Incremental Investment-Deposit Ratio	5.3	147.4	43.0	3.6	5.3
4 Interest Rates (%)					
4.1 Policy Repo Rate	6.25	6.00	6.00	6.25	6.25
4.2 Reverse Repo Rate	6.00	5.75	5.75	6.00	6.00
4.3 Marginal Standing Facility (MSF) Rate	6.50	6.25	6.25	6.50	6.50
4.4 Bank Rate	6.50	6.25	6.25	6.50	6.50
4.5 Base Rate	8.95/9.40	8.65/9.45	8.65/9.45	8.95/9.45	8.95/9.40
4.6 MCLR (Overnight)	8.05/8.55	7.65/7.80	7.80/7.95	8.15/8.55	8.05/8.55
4.7 Term Deposit Rate >1 Year	6.25/7.50	6.00/6.75	6.25/6.75	6.25/7.50	6.25/7.50
4.8 Savings Deposit Rate	3.50/4.00	3.50/4.00	3.50/4.00	3.50/4.00	3.50/4.00
4.9 Call Money Rate (Weighted Average)	6.35	5.94	6.15	6.29	6.35
4.10 91-Day Treasury Bill (Primary) Yield	6.31	6.36	6.11	6.40	6.31
4.11 182-Day Treasury Bill (Primary) Yield	6.35	6.50	6.33	6.48	6.35
4.12 364-Day Treasury Bill (Primary) Yield	6.39	6.66	6.49	6.55	6.39
4.13 10-Year G-Sec Par Yield (FBIL)	7.34	7.70	7.42	7.41	7.34
5 Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (Rs. Per Foreign Currency)	69.17	64.82	65.04	71.22	69.17
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	77.70	79.76	80.62	80.75	77.70
5.3 Forward Premia of US$ 1-month (%)	6.07	4.26	4.61	4.13	6.07
3-month (%)	4.80	4.50	4.37	4.38	4.80
6-month (%)	4.16	4.13	4.21	4.16	4.16
6 Inflation (%)					
6.1 All India Consumer Price Index	2.86	4.4	4.3	2.6	2.9
6.2 Consumer Price Index for Industrial Workers	7.67	4.7	4.4	7.0	7.7
6.3 Wholesale Price Index	3.18	2.7	2.7	2.9	3.2
6.3.1 Primary Articles	5.07	0.8	0.9	4.8	5.1
6.3.2 Fuel and Power	5.41	4.6	4.7	2.2	5.4
6.3.3 Manufactured Products	2.16	3.3	3.1	2.3	2.2
7 Foreign Trade (% Change)					
7.1 Imports	1.44	10.6	7.1	-4.2	1.4
7.2 Exports	11.02	5.3	-0.5	2.4	11.0

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 *

(₹ Billion)

Item	As on the Last Friday/ Friday						
	2018-19	2018	2019				
		Apr.	Mar. 29	Apr. 5	Apr. 12	Apr. 19	Apr. 26
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	21,137.64	18,779.71	21,137.64	21,223.42	21,487.09	21,621.77	21,540.71
1.1.2 Notes held in Banking Department	0.11	0.12	0.11	0.09	0.12	0.12	0.12
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**21,137.75**	**18,779.84**	**21,137.75**	**21,223.51**	**21,487.21**	**21,621.89**	**21,540.83**
1.2 Assets							
1.2.1 Gold Coin and Bullion	794.81	729.00	794.81	761.50	761.50	761.50	761.50
1.2.2 Foreign Securities	20,335.59	18,044.31	20,335.59	20,454.66	20,716.47	20,851.19	20,770.23
1.2.3 Rupee Coin	7.35	6.52	7.35	7.35	9.24	9.20	9.10
1.2.4 Government of India Rupee Securities	–	–	–	–	–	–	–
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	8,060.12	6,496.95	8,060.12	7,643.76	6,921.47	6,850.57	7,241.85
2.1.1.1 Central Government	1.01	1.01	1.01	1.00	1.01	1.01	1.00
2.1.1.2 Market Stabilisation Scheme	–	–	–	–	–	–	–
2.1.1.3 State Governments	0.43	0.43	0.43	0.42	0.42	0.42	0.42
2.1.1.4 Scheduled Commercial Banks	5,657.07	4,900.62	5,657.07	5,074.67	5,047.00	5,404.21	5,229.44
2.1.1.5 Scheduled State Co-operative Banks	41.97	42.50	41.97	38.61	38.44	38.08	41.55
2.1.1.6 Non-Scheduled State Co-operative Banks	34.94	20.63	34.94	26.08	26.27	25.23	26.19
2.1.1.7 Other Banks	320.36	281.01	320.36	297.82	295.52	302.62	307.44
2.1.1.8 Others	1,997.34	1,250.76	1,997.34	2,191.06	1,498.98	1,079.00	1,608.02
2.1.1.9 Financial Institution Outside India	7.00	–	7.00	14.10	13.83	–	27.79
2.1.2 Other Liabilities	10,876.86	9,801.78	10,876.86	10,980.84	11,094.73	11,093.08	11,314.65
2.1/2.2 Total Liabilities or Assets	**18,936.98**	**16,298.72**	**18,936.98**	**18,624.60**	**18,016.20**	**17,943.65**	**18,556.50**
2.2 Assets							
2.2.1 Notes and Coins	0.11	0.12	0.11	0.09	0.12	0.12	0.13
2.2.2 Balances held Abroad	6,466.40	8,584.90	6,466.40	6,499.95	6,332.84	6,184.33	6,855.16
2.2.3 Loans and Advances							
2.2.3.1 Central Government	–	–	–	–	–	–	–
2.2.3.2 State Governments	0.10	–	0.10	73.82	60.34	50.37	0.66
2.2.3.3 Scheduled Commercial Banks	1,806.88	475.76	1,806.88	1,368.11	983.47	1,067.72	1,054.78
2.2.3.4 Scheduled State Co-op.Banks	–	–	–	–	–	–	–
2.2.3.5 Industrial Dev. Bank of India	–	–	–	–	–	–	–
2.2.3.6 NABARD	–	–	–	–	–	–	–
2.2.3.7 EXIM Bank	–	–	–	–	–	–	–
2.2.3.8 Others	134.63	58.97	134.63	124.82	71.01	71.02	67.67
2.2.3.9 Financial Institution Outside India	7.00	–	7.00	–0.14	–	–	3.40
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	–	–	–	–	–	–	–
2.2.4.2 Government Treasury Bills	–	–	–	–	–	–	–
2.2.5 Investments	9,230.80	6,290.30	9,230.80	9,294.23	9,294.64	9,295.04	9,295.35
2.2.6 Other Assets	1,291.06	888.68	1,291.06	1,263.72	1,273.78	1,275.05	1,279.35
2.2.6.1 Gold	871.69	670.18	871.69	845.06	850.42	850.42	850.42

* Data are provisional

No. 3: Liquidity Operations by RBI

(₹ Billion)

Date	Liquidity Adjustment Facility				MSF	Standing Liquidity Facilities	Market Stabilisation Scheme	OMO (Outright)		Net Injection (+)/ Absorption (-) (1+3+5+6+9-2-4-7-8)
	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo				Sale	Purchase	
	1	2	3	4	5	6	7	8	9	10
Mar. 1, 2019	32.25	551.66	240.01	242.52	17.25	–	–	–	125.00	–379.67
Mar. 2, 2019	116.70	87.19	–	–	–	–	–	–	–	29.51
Mar. 4, 2019	–	131.96	–	–	3.72	–	–	–	–	–128.24
Mar. 5, 2019	47.91	188.66	37.65	495.90	7.25	–	–	–	–	–591.75
Mar. 6, 2019	35.16	138.80	250.02	427.61	9.35	–2.00	–	–	–	–273.88
Mar. 7, 2019	30.56	163.89	–	200.56	2.83	2.32	–	0.10	0.10	–328.74
Mar. 8, 2019	42.59	365.56	116.55	104.66	1.50	–	–	–	125.00	–184.58
Mar. 11, 2019	28.11	372.84	250.01	218.44	3.00	–	–	–	–	–310.16
Mar. 12, 2019	29.91	349.13	240.01	699.74	1.30	–0.89	–	–	–	–778.54
Mar. 13, 2019	79.21	127.26	–	849.90	4.88	4.84	–	–	–	–888.23
Mar. 14, 2019	30.53	223.04	250.03	852.44	20.01	0.33	–	0.10	0.10	–774.58
Mar. 15, 2019	39.40	411.65	75.00	–	14.41	1.23	–	–	125.00	–156.61
Mar. 16, 2019	143.60	37.46	–	–	108.50	–	–	–	–	214.64
Mar. 18, 2019	36.61	238.02	–	326.42	–	–	–	–	–	–527.83
Mar. 19, 2019	62.61	94.44	186.33	747.67	1.25	1.32	–	–	–	–590.60
Mar. 20, 2019	50.16	114.53	111.75	373.04	0.03	1.91	–	–	0.10	–323.62
Mar. 21, 2019	–	75.07	–	–	16.80	–	–	–	–	–58.27
Mar. 22, 2019	62.44	482.13	152.30	472.64	–	–1.91	–	0.05	0.15	–741.84
Mar. 25, 2019	58.19	559.32	–	310.04	2.01	1.91	–	–	–	–807.25
Mar. 26, 2019	38.81	508.49	195.60	425.38	–	–	–	–	–	–699.46
Mar. 27, 2019	108.88	409.66	–	531.70	1.70	–	–	–	–	–830.78
Mar. 28, 2019	64.61	469.84	–	698.23	39.40	–	–	0.05	0.15	–1,063.96
Mar. 29, 2019	146.85	782.58	243.00	–	128.82	–0.23	–	–	–	–264.14
Mar. 30, 2019	106.19	410.74	–	–	194.43	–	–	–	–	–110.12
Mar. 31, 2019	4.25	163.58	–	–	619.38	–	–	–	–	460.05

No. 4: Sale/ Purchase of U.S. Dollar by the RBI

i) Operations in OTC segment

Item	2017-18	2018	2019	
		Mar.	Feb.	Mar.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1–1.2)	33,689.00	996.00	825.00	9,408.00
1.1 Purchase (+)	52,068.00	3,328.00	2,086.00	10,306.00
1.2 Sale (–)	18,379.00	2,332.00	1,261.00	898.00
2 ₹ equivalent at contract rate (₹ Billion)	2,228.28	71.10	54.04	649.65
3 Cumulative (over end-March) (US $ Million)	33,689.00	33,689.00	–24,785.00	–15,377.00
(₹ Billion)	2,228.27	2,228.27	–1,769.10	–1,119.45
4 Outstanding Net Forward Sales (–)/ Purchase (+) at the end of month (US $ Million)	20,853.00	20,853.00	–4,372.00	–13,774.00

ii) Operations in currency futures segment

Item	2017-18	2018	2019	
		Mar.	Feb.	Mar.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1–1.2)	0.00	0.00	0.00	0.00
1.1 Purchase (+)	3,935.00	1,005.00	233.00	300.00
1.2 Sale (–)	3,935.00	1,005.00	233.00	300.00
2 Outstanding Net Currency Futures Sales (–)/ Purchase (+) at the end of month (US $ Million)	0.00	0.00	–300.00	0.00

No. 4 A: Maturity Breakdown (by Residual Maturity) of Outstanding Forwards of RBI

(US $ Million)

Item	As on March 31, 2019		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	2,115	2,377	-262
2. More than 1 month and upto 3 months	3,138	3,895	-757
3. More than 3 months and upto 1 year	200	7,070	-6,870
4. More than 1 year	0	5,885	-5,885
Total (1+2+3+4)	**5,453**	**19,227**	**-13,774**

No. 5: RBI's Standing Facilities

(₹ Billion)

Item		As on the Last Reporting Friday						
	2018-19	2018			2019			
		Apr. 27	Nov. 23	Dec. 21	Jan. 18	Feb. 15	Mar. 29	Apr. 26
	1	2	3	4	5	6	7	8
1 MSF	128.8	31.2	7.5	32.1	5.0	10.9	128.8	10.0
2.1 Limit	–	–	–	–	–	–	–	–
2.2 Outstanding	–	–	–	–	–	–	–	–
3.1 Limit	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
3.2 Outstanding	26.8	23.5	21.2	20.8	17.0	17.9	26.8	23.5
4.1 Limit	–	–	–	–	–	–	–	–
4.2 Outstanding	–	–	–	–	–	–	–	–
5 Total Outstanding (1+2.2+3.2+4.2)	155.6	54.7	28.7	52.9	22.1	28.8	155.6	33.5

Money and Banking

No. 6: Money Stock Measures

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2018-19	2018	2019		
		Mar. 30	Feb. 15	Mar. 15	Mar. 29
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	20,522.3	17,604.4	20,294.6	20,638.1	20,550.7
1.1 Notes in Circulation	21,108.8	18,044.2	20,798.9	21,156.9	21,137.6
1.2 Circulation of Rupee Coin	251.4	249.1	250.8	251.0	251.0
1.3 Circulation of Small Coins	7.4	7.4	7.4	7.4	7.4
1.4 Cash on Hand with Banks	845.4	696.4	762.6	777.2	845.4
2 Deposit Money of the Public	16,580.5	15,103.2	14,274.7	14,324.3	16,667.4
2.1 Demand Deposits with Banks	16,263.1	14,837.1	14,012.7	14,046.7	16,263.1
2.2 'Other' Deposits with Reserve Bank	317.4	266.0	262.0	277.6	404.3
3 M_1 (1 + 2)	**37,102.8**	**32,707.5**	**34,569.3**	**34,962.4**	**37,218.1**
4 Post Office Saving Bank Deposits	1,348.6	1,092.1	1,256.2	1,348.6	1,348.6
5 M_2 (3 + 4)	**38,451.5**	**33,799.6**	**35,825.5**	**36,311.1**	**38,566.7**
6 Time Deposits with Banks	117,205.9	106,952.6	114,829.0	115,896.7	117,205.9
7 M_3 (3 + 6)	**154,308.7**	**139,660.1**	**149,398.3**	**150,859.1**	**154,424.0**
8 Total Post Office Deposits	3,579.5	3,008.1	3,372.6	3,579.5	3,579.5
9 M_4 (7 + 8)	**157,888.3**	**142,668.1**	**152,770.9**	**154,438.6**	**158,003.5**

No. 7: Sources of Money Stock (M_3)

(₹ Billion)

Sources	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2018-19	2018	2019		
		Mar. 30	Feb. 15	Mar. 15	Mar. 29
	1	2	3	4	5
1 Net Bank Credit to Government	**43,877.9**	**39,909.8**	**44,334.5**	**45,211.4**	**44,315.8**
1.1 RBI's net credit to Government (1.1.1–1.1.2)	8,019.5	4,655.5	8,730.5	9,213.3	8,457.4
1.1.1 Claims on Government	9,296.9	6,350.3	8,755.5	9,234.8	9,218.6
1.1.1.1 Central Government	9,281.7	6,342.9	8,714.6	9,217.9	9,218.5
1.1.1.2 State Governments	15.2	7.4	40.9	16.9	0.1
1.1.2 Government deposits with RBI	1,277.4	1,694.8	25.0	21.6	761.2
1.1.2.1 Central Government	1,276.9	1,688.3	24.6	21.1	760.8
1.1.2.2 State Governments	0.4	6.5	0.4	0.4	0.4
1.2 Other Banks' Credit to Government	35,858.4	35,254.4	35,604.0	35,998.1	35,858.4
2 Bank Credit to Commercial Sector	**103,801.8**	**92,137.2**	**100,387.5**	**101,543.1**	**103,801.9**
2.1 RBI's credit to commercial sector	153.6	140.3	80.7	88.1	153.8
2.2 Other banks' credit to commercial sector	103,648.2	91,996.9	100,306.8	101,455.0	103,648.2
2.2.1 Bank credit by commercial banks	97,691.9	86,254.2	94,403.6	95,537.1	97,691.9
2.2.2 Bank credit by co-operative banks	5,859.3	5,666.0	5,817.2	5,835.8	5,859.3
2.2.3 Investments by commercial and co-operative banks in other securities	97.0	76.7	86.0	82.1	97.0
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**29,778.6**	**29,211.9**	**29,642.9**	**29,365.2**	**29,759.1**
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	28,485.9	27,596.8	28,350.2	28,072.5	28,466.4
3.1.1 Gross foreign assets	28,488.0	27,598.8	28,352.4	28,074.8	28,468.5
3.1.2 Foreign liabilities	2.1	2.1	2.3	2.3	2.1
3.2 Other banks' net foreign exchange assets	1,292.7	1,615.1	1,292.7	1,292.7	1,292.7
4 Government's Currency Liabilities to the Public	**258.9**	**256.5**	**258.2**	**258.4**	**258.4**
5 Banking Sector's Net Non-monetary Liabilities	**23,408.4**	**21,855.3**	**25,224.8**	**25,519.0**	**23,711.2**
5.1 Net non-monetary liabilities of RBI	10,588.0	8,982.0	11,466.8	10,819.0	10,506.0
5.2 Net non-monetary liabilities of other banks (residual)	12,820.4	12,873.4	13,758.0	14,700.1	13,205.2
M_3 (1+2+3+4–5)	**154,308.7**	**139,660.1**	**149,398.3**	**150,859.1**	**154,424.0**

No. 8: Monetary Survey

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2018-19	2018	2019		
		Mar. 30	Feb. 15	Mar. 15	Mar. 29
	1	2	3	4	5
Monetary Aggregates					
NM_1 (1.1 + 1.2.1+1.3)	37,102.4	32,707.5	34,569.3	34,962.4	37,218.1
NM_2 (NM_1 + 1.2.2.1)	89,108.3	80,176.3	85,542.9	86,414.3	89,224.0
NM_3 (NM_2 + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	156,451.6	141,850.9	151,455.6	153,032.0	156,567.4
1 Components					
1.1 Currency with the Public	20,521.9	17,604.4	20,294.6	20,638.1	20,550.7
1.2 Aggregate Deposits of Residents	131,831.8	120,323.4	127,287.5	128,384.1	131,831.8
1.2.1 Demand Deposits	16,263.1	14,837.1	14,012.7	14,046.7	16,263.1
1.2.2 Time Deposits of Residents	115,568.7	105,486.3	113,274.8	114,337.4	115,568.7
1.2.2.1 Short-term Time Deposits	52,005.9	47,468.8	50,973.7	51,451.8	52,005.9
1.2.2.1.1 Certificates of Deposit (CDs)	2,849.9	1,931.1	2,173.1	2,552.6	2,849.9
1.2.2.2 Long-term Time Deposits	63,562.8	58,017.4	62,301.2	62,885.6	63,562.8
1.3 'Other' Deposits with RBI	317.4	266.0	262.0	277.6	404.3
1.4 Call/Term Funding from Financial Institutions	3,780.5	3,657.1	3,611.5	3,732.2	3,780.5
2 Sources					
2.1 Domestic Credit	156,561.0	139,837.2	153,425.0	155,940.3	156,999.0
2.1.1 Net Bank Credit to the Government	43,877.9	39,909.8	44,334.5	45,211.4	44,315.8
2.1.1.1 Net RBI credit to the Government	8,019.5	4,655.5	8,730.5	9,213.3	8,457.4
2.1.1.2 Credit to the Government by the Banking System	35,858.4	35,254.4	35,604.0	35,998.1	35,858.4
2.1.2 Bank Credit to the Commercial Sector	112,683.1	99,927.3	109,090.5	110,729.0	112,683.2
2.1.2.1 RBI Credit to the Commercial Sector	153.6	140.3	80.7	88.1	153.8
2.1.2.2 Credit to the Commercial Sector by the Banking System	112,529.4	99,787.1	109,009.8	110,640.9	112,529.4
2.1.2.2.1 Other Investments (Non-SLR Securities)	8,798.5	7,728.5	8,581.7	9,078.2	8,798.5
2.2 Government's Currency Liabilities to the Public	258.4	256.5	258.2	258.4	258.4
2.3 Net Foreign Exchange Assets of the Banking Sector	28,017.3	26,920.6	27,553.6	27,314.1	27,997.7
2.3.1 Net Foreign Exchange Assets of the RBI	28,485.9	27,596.8	28,350.2	28,072.5	28,466.4
2.3.2 Net Foreign Currency Assets of the Banking System	–468.6	–676.2	–796.6	–758.4	–468.6
2.4 Capital Account	23,467.4	20,717.1	23,877.9	23,450.8	23,538.1
2.5 Other items (net)	4,917.6	4,446.3	5,903.3	7,030.0	5,149.7

No. 9: Liquidity Aggregates

(₹ Billion)

Aggregates	2018-19	2018	2019		
		Mar.	Jan.	Feb.	Mar.
	1	2	3	4	5
1 NM_3	**156,451.6**	**141,816.7**	**149,656.6**	**151,455.6**	**156,451.6**
2 Postal Deposits	3,579.5	3,008.1	3,529.2	3,579.5	3,579.5
3 L_1 (1 + 2)	**160,031.2**	**144,824.7**	**153,185.8**	**155,035.1**	**160,031.2**
4 Liabilities of Financial Institutions	29.3	29.3	29.3	29.3	29.3
4.1 Term Money Borrowings	26.6	26.6	26.6	26.6	26.6
4.2 Certificates of Deposit	0.3	0.3	0.3	0.3	0.3
4.3 Term Deposits	2.5	2.5	2.5	2.5	2.5
5 L_2 (3 + 4)	**160,060.5**	**144,854.0**	**153,215.1**	**155,064.4**	**160,060.5**
6 Public Deposits with Non-Banking Financial Companies	319.1	319.1	..	..	319.1
7 L_3 (5 + 6)	**160,379.5**	**145,173.1**	..	..	**160,379.5**

No. 10: Reserve Bank of India Survey

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2018-19	2018	2019		
		Mar. 30	Feb. 15	Mar. 15	Mar. 29
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	21,367.7	18,300.7	21,057.2	21,415.3	21,396.1
1.2 Bankers' Deposits with the RBI	6,019.7	5,636.3	5,262.4	5,951.7	6,054.3
1.2.1 Scheduled Commercial Banks	5,585.0	5,256.9	4,918.4	5,599.9	5,657.1
1.3 'Other' Deposits with the RBI	317.4	266.0	262.0	277.6	404.3
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	27,704.4	24,203.0	26,581.6	27,644.6	27,854.7
2 Sources					
2.1 RBI's Domestic Credit	9,548.0	5,331.7	9,439.9	10,132.6	9,636.0
2.1.1 Net RBI credit to the Government	8,019.5	4,655.5	8,730.5	9,213.3	8,457.4
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)	8,004.7	4,654.6	8,690.0	9,196.8	8,457.8
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	9,274.3	6,336.1	8,706.7	9,210.3	9,211.2
2.1.1.1.3.1 Central Government Securities	9,274.3	6,336.1	8,706.7	9,210.3	9,211.2
2.1.1.1.4 Rupee Coins	7.4	6.8	7.9	7.6	7.4
2.1.1.1.5 Deposits of the Central Government	1,276.9	1,688.3	24.6	21.1	760.8
2.1.1.2 Net RBI credit to State Governments	14.8	0.9	40.5	16.5	-0.3
2.1.2 RBI's Claims on Banks	1,374.9	536.0	628.8	831.3	1,024.8
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	1,374.9	535.7	628.8	831.3	1,024.8
2.1.3 RBI's Credit to Commercial Sector	153.6	140.3	80.7	88.1	153.8
2.1.3.1 Loans and Advances to Primary Dealers	26.8	25.4	17.9	23.8	26.8
2.1.3.2 Loans and Advances to NABARD	–	–	–	–	–
2.2 Government's Currency Liabilities to the Public	258.4	256.5	258.2	258.4	258.4
2.3 Net Foreign Exchange Assets of the RBI	28,485.9	27,596.8	28,350.2	28,072.5	28,466.4
2.3.1 Gold	1,595.9	1,407.2	1,617.1	1,666.5	1,666.5
2.3.2 Foreign Currency Assets	26,890.2	26,189.8	26,733.3	26,406.2	26,800.0
2.4 Capital Account	9,702.7	8,596.1	10,529.4	9,865.6	9,773.3
2.5 Other Items (net)	885.3	385.8	937.4	953.4	732.7

No. 11: Reserve Money - Components and Sources

(₹ Billion)

Item	2018-19	Outstanding as on March 31/ last Fridays of the month/ Fridays						
		2018	2019					
		Mar. 30	Feb. 22	Mar. 1	Mar. 8	Mar. 15	Mar. 22	Mar. 29
	1	2	3	4	5	6	7	8
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 – 2.6)	27,704.8	24,203.0	26,718.3	26,655.0	26,769.4	27,644.6	27,004.4	27,854.7
1 Components								
1.1 Currency in Circulation	21,367.7	18,300.7	21,074.2	21,060.5	21,318.4	21,415.3	21,479.6	21,396.1
1.2 Bankers' Deposits with RBI	6,019.7	5,636.3	5,381.0	5,318.4	5,179.0	5,951.7	5,255.1	6,054.3
1.3 'Other' Deposits with RBI	317.4	266.0	263.0	276.1	272.0	277.6	269.7	404.3
2 Sources								
2.1 Net Reserve Bank Credit to Government	8,019.5	4,655.5	8,280.3	9,140.6	9,109.5	9,213.3	8,792.1	8,457.4
2.2 Reserve Bank Credit to Banks	1,374.9	536.0	1,205.8	188.5	244.7	831.3	573.6	1,024.8
2.3 Reserve Bank Credit to Commercial Sector	153.6	140.3	78.8	78.7	82.0	88.1	96.2	153.8
2.4 Net Foreign Exchange Assets of RBI	28,485.9	27,596.8	28,404.0	28,457.4	28,131.4	28,072.5	27,908.5	28,466.4
2.5 Government's Currency Liabilities to the Public	258.9	256.5	258.4	258.4	258.4	258.4	258.4	258.4
2.6 Net Non- Monetary Liabilities of RBI	10,588.0	8,982.0	11,509.1	11,468.6	11,056.6	10,819.0	10,624.4	10,506.0

No. 12: Commercial Bank Survey

(₹ Billion)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2018-19	2018	2019		
		Mar. 30	Feb. 15	Mar. 15	Mar. 29
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	124,088.4	112,794.2	119,640.5	120,703.3	124,088.4
1.1.1 Demand Deposits	15,110.8	13,702.8	12,877.2	12,907.8	15,110.8
1.1.2 Time Deposits of Residents	108,977.5	99,091.4	106,763.3	107,795.5	108,977.5
1.1.2.1 Short-term Time Deposits	49,039.9	44,591.1	48,043.5	48,508.0	49,039.9
1.1.2.1.1 Certificates of Deposits (CDs)	2,849.9	1,931.1	2,173.1	2,552.6	2,849.9
1.1.2.2 Long-term Time Deposits	59,937.6	54,500.3	58,719.8	59,287.5	59,937.6
1.2 Call/Term Funding from Financial Institutions	3,780.5	3,657.1	3,611.5	3,732.2	3,780.5
2 Sources					
2.1 Domestic Credit	140,289.7	127,142.0	136,568.6	138,568.6	140,289.7
2.1.1 Credit to the Government	33,783.0	33,174.1	33,537.0	33,922.6	33,783.0
2.1.2 Credit to the Commercial Sector	106,506.7	93,967.9	103,031.6	104,646.0	106,506.7
2.1.2.1 Bank Credit	97,691.9	86,254.2	94,403.6	95,537.1	97,691.9
2.1.2.1.1 Non-food Credit	97,275.8	85,834.4	93,786.2	95,010.3	97,275.8
2.1.2.2 Net Credit to Primary Dealers	85.4	64.3	123.9	110.3	85.4
2.1.2.3 Investments in Other Approved Securities	20.5	10.5	12.0	10.1	20.5
2.1.2.4 Other Investments (in non-SLR Securities)	8,708.9	7,638.9	8,492.1	8,988.6	8,708.9
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	–468.6	–676.2	–796.6	–758.4	–468.6
2.2.1 Foreign Currency Assets	2,623.8	2,018.0	2,099.2	2,222.3	2,623.8
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	1,637.2	1,466.3	1,554.2	1,559.3	1,637.2
2.2.3 Overseas Foreign Currency Borrowings	1,455.3	1,227.9	1,341.6	1,421.5	1,455.3
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	5,380.8	5,321.8	4,955.9	5,449.2	5,380.8
2.3.1 Balances with the RBI	5,657.1	5,256.9	4,918.4	5,599.9	5,657.1
2.3.2 Cash in Hand	748.5	600.6	666.3	680.7	748.5
2.3.3 Loans and Advances from the RBI	1,024.8	535.7	628.8	831.3	1,024.8
2.4 Capital Account	13,523.1	11,879.3	13,106.9	13,343.6	13,523.1
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	3,809.9	3,457.1	4,369.1	5,480.3	3,809.9
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	3,979.8	4,360.8	3,825.3	4,558.4	3,979.8
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	–484.5	–268.2	–524.5	–524.0	–484.5

No. 13: Scheduled Commercial Banks' Investments

(₹ Billion)

Item	As on March 29, 2019	2018	2019		
		Mar. 30	Feb. 15	Mar. 15	Mar. 29
	1	2	3	4	5
1 SLR Securities	33,803.6	33,184.5	33,548.6	33,932.6	33,803.5
2 Commercial Paper	903.6	1,159.4	964.7	976.3	903.6
3 Shares issued by					
3.1 PSUs	115.4	118.7	115.8	117.5	115.4
3.2 Private Corporate Sector	695.9	745.3	720.7	708.2	695.9
3.3 Others	63.8	42.1	62.1	59.9	63.8
4 Bonds/Debentures issued by					
4.1 PSUs	1,348.2	1,399.7	1,194.6	1,346.1	1,348.2
4.2 Private Corporate Sector	2,687.8	2,222.3	2,534.1	2,579.9	2,687.8
4.3 Others	1,700.5	994.6	1,393.6	1,655.8	1,700.5
5 Instruments issued by					
5.1 Mutual funds	209.9	177.3	569.6	549.2	209.9
5.2 Financial institutions	983.8	895.8	936.5	995.6	983.8

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

(₹ Billion)

Item	As on the Last Reporting Friday (in case of March)/ Last Friday							
	All Scheduled Banks				All Scheduled Commercial Banks			
	2018-19	2018	2019		2018-19	2018	2019	
		Mar.	Feb.	Mar.		Mar.	Feb.	Mar.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	220	223	222	220	146	149	148	146
1 Liabilities to the Banking System	**2,755.5**	**2,344.9**	**2,550.9**	**2,755.5**	**2,706.2**	**2,282.0**	**2,505.7**	**2,706.2**
1.1 Demand and Time Deposits from Banks	1,809.8	1,667.5	1,609.5	1,809.8	1,761.5	1,615.6	1,565.8	1,761.5
1.2 Borrowings from Banks	793.6	611.7	851.3	793.6	793.4	601.2	850.7	793.4
1.3 Other Demand and Time Liabilities	152.1	65.7	90.1	152.1	151.3	65.2	89.3	151.3
2 Liabilities to Others	**138,343.1**	**126,658.9**	**132,933.9**	**138,343.1**	**134,941.1**	**123,506.3**	**129,637.4**	**134,941.1**
2.1 Aggregate Deposits	129,003.4	117,285.4	124,094.7	129,003.4	125,725.5	114,260.5	120,932.9	125,725.5
2.1.1 Demand	15,422.7	13,994.8	12,941.9	15,422.7	15,110.8	13,702.8	12,653.1	15,110.8
2.1.2 Time	113,580.7	103,290.6	111,152.9	113,580.7	110,614.7	100,557.7	108,279.8	110,614.7
2.2 Borrowings	3,816.6	3,693.9	3,689.9	3,816.6	3,780.5	3,657.1	3,647.2	3,780.5
2.3 Other Demand and Time Liabilities	5,523.1	5,679.7	5,149.3	5,523.1	5,435.0	5,588.7	5,057.3	5,435.0
3 Borrowings from Reserve Bank	**1,806.9**	**2,740.1**	**1,474.0**	**1,806.9**	**1,806.9**	**2,739.8**	**1,474.0**	**1,806.9**
3.1 Against Usance Bills /Promissory Notes	–	–	–	–	–	–	–	–
3.2 Others	1,806.9	2,740.1	1,474.0	1,806.9	1,806.9	2,739.8	1,474.0	1,806.9
4 Cash in Hand and Balances with Reserve Bank	6,575.3	6,029.2	5,884.4	6,575.3	6,405.6	5,857.5	5,744.2	6,405.6
4.1 Cash in Hand	765.3	616.3	727.8	765.3	748.52	600.6	710.8	748.5
4.2 Balances with Reserve Bank	5,810.0	5,412.9	5,156.5	5,810.0	5,657.1	5,256.9	5,033.4	5,657.1
5 Assets with the Banking System	**3,722.5**	**3,011.8**	**3,706.8**	**3,722.5**	**3,276.1**	**2,614.6**	**3,180.8**	**3,276.1**
5.1 Balances with Other Banks	2,447.1	2,041.9	2,381.2	2,447.1	2,230.1	1,860.5	2,170.4	2,230.1
5.1.1 In Current Account	167.4	156.0	139.7	167.4	133.0	123.1	112.4	133.0
5.1.2 In Other Accounts	2,279.7	1,885.9	2,241.5	2,279.7	2,097.2	1,737.4	2,058.1	2,097.2
5.2 Money at Call and Short Notice	478.0	360.5	548.9	478.0	320.9	182.4	312.1	320.9
5.3 Advances to Banks	329.5	284.1	348.6	329.5	296.4	282.0	305.5	296.4
5.4 Other Assets	467.9	325.3	428.2	467.9	428.8	289.6	392.9	428.8
6 Investment	**34,749.0**	**34,124.7**	**34,365.8**	**34,749.0**	**33,803.5**	**33,184.5**	**33,427.0**	**33,803.5**
6.1 Government Securities	34,671.4	34,067.4	34,300.5	34,671.4	33,783.0	33,174.1	33,416.3	33,783.0
6.2 Other Approved Securities	77.6	57.3	65.2	77.6	20.5	10.5	10.7	20.5
7 Bank Credit	**100,555.4**	**88,785.3**	**97,295.4**	**100,555.4**	**97,691.9**	**86,254.2**	**94,497.4**	**97,691.9**
7a Food Credit	646.4	611.4	823.4	646.4	416.1	419.9	593.1	416.1
7.1 Loans, Cash-credits and Overdrafts	98,007.1	86,451.5	94,948.8	98,007.1	95,194.6	83,984.8	92,200.4	95,194.6
7.2 Inland Bills-Purchased	276.4	230.3	240.8	276.4	262.2	203.9	226.1	262.2
7.3 Inland Bills-Discounted	1,609.8	1,417.3	1,489.2	1,609.8	1,583.0	1,387.5	1,463.4	1,583.0
7.4 Foreign Bills-Purchased	249.1	266.0	231.2	249.1	245.8	263.0	228.0	245.8
7.5 Foreign Bills-Discounted	413.0	420.3	385.3	413.0	406.2	415.0	379.5	406.2

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

(₹ Billion)

Item	Outstanding as on				Growth (%)	
	Mar. 30, 2018	2018	2019		Financial year so far	Y-o-Y
		Mar. 30	Feb. 15	Mar. 29	2018-19	2019
	1	2	3	4	5	6
1 Gross Bank Credit	**77,303**	**77,303**	**83,681**	**86,749**	**12.2**	**12.2**
1.1 Food Credit	**419**	**419**	**615**	**415**	**–0.9**	**-0.9**
1.2 Non-food Credit	**76,884**	**76,884**	**83,065**	**86,334**	**12.3**	**12.3**
1.2.1 Agriculture & Allied Activities	**10,302**	**10,302**	**10,928**	**11,113**	**7.9**	**7.9**
1.2.2 Industry	**26,993**	**26,993**	**27,743**	**28,858**	**6.9**	**6.9**
1.2.2.1 Micro & Small	3,730	3,730	3,727	3,755	0.7	0.7
1.2.2.2 Medium	1,037	1,037	1,034	1,064	2.6	2.6
1.2.2.3 Large	22,226	22,226	22,982	24,039	8.2	8.2
1.2.3 Services	**20,505**	**20,505**	**22,762**	**24,156**	**17.8**	**17.8**
1.2.3.1 Transport Operators	1,213	1,213	1,349	1,385	14.2	14.2
1.2.3.2 Computer Software	186	186	192	185	–0.4	-0.4
1.2.3.3 Tourism, Hotels & Restaurants	365	365	386	390	6.9	6.9
1.2.3.4 Shipping	63	63	74	77	22.8	22.8
1.2.3.5 Professional Services	1,554	1,554	1,781	1,715	10.4	10.4
1.2.3.6 Trade	4,669	4,669	5,047	5,282	13.1	13.1
1.2.3.6.1 Wholesale Trade	2,052	2,052	2,243	2,505	22.1	22.1
1.2.3.6.2 Retail Trade	2,618	2,618	2,804	2,776	6.1	6.1
1.2.3.7 Commercial Real Estate	1,858	1,858	1,988	2,023	8.9	8.9
1.2.3.8 Non-Banking Financial Companies (NBFCs)	4,964	4,964	5,754	6,412	29.2	29.2
1.2.3.9 Other Services	5,633	5,633	6,191	6,686	18.7	18.7
1.2.4 Personal Loans	**19,085**	**19,085**	**21,633**	**22,207**	**16.4**	**16.4**
1.2.4.1 Consumer Durables	197	197	45	63	–68.0	-68.0
1.2.4.2 Housing	9,746	9,746	11,349	11,601	19.0	19.0
1.2.4.3 Advances against Fixed Deposits	725	725	706	829	14.3	14.3
1.2.4.4 Advances to Individuals against share & bond	56	56	59	63	12.8	12.8
1.2.4.5 Credit Card Outstanding	686	686	834	883	28.6	28.6
1.2.4.6 Education	697	697	689	680	–2.5	-2.5
1.2.4.7 Vehicle Loans	1,898	1,898	2,005	2,022	6.5	6.5
1.2.4.8 Other Personal Loans	5,080	5,080	5,946	6,068	19.4	19.4
1.2A Priority Sector	**25,532**	**25,532**	**26,829**	**27,390**	**7.3**	**7.3**
1.2A.1 Agriculture & Allied Activities	10,216	10,216	10,863	11,050	8.2	8.2
1.2A.2 Micro & Small Enterprises	9,964	9,964	10,266	10,672	7.1	7.1
1.2A.2.1 Manufacturing	3,730	3,730	3,727	3,755	0.7	0.7
1.2A.2.2 Services	6,234	6,234	6,540	6,917	11.0	11.0
1.2A.3 Housing	3,756	3,756	4,332	4,327	15.2	15.2
1.2A.4 Micro-Credit	264	264	243	241	–8.5	-8.5
1.2A.5 Education Loans	607	607	563	540	–11.1	-11.1
1.2A.6 State-Sponsored Orgs. for SC/ST	3	3	4	4	34.1	34.1
1.2A.7 Weaker Sections	5,690	5,690	6,149	6,626	16.4	16.4
1.2A.8 Export Credit	283	283	165	156	–45.0	-45.0

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

(₹ Billion)

Industry	Outstanding as on				Growth (%)	
	Mar. 30, 2018	2018	2019		Financial year so far	Y-o-Y
		Mar. 30	Feb. 15	Mar. 29	2018-19	2019
	1	2	3	4	5	6
1 Industry	**26,993**	**26,993**	**27,743**	**28,858**	**6.9**	**6.9**
1.1 Mining & Quarrying (incl. Coal)	**413**	**413**	**415**	**418**	**1.1**	**1.1**
1.2 Food Processing	**1,554**	**1,554**	**1,547**	**1,571**	**1.1**	**1.1**
1.2.1 Sugar	290	290	284	297	2.6	2.6
1.2.2 Edible Oils & Vanaspati	211	211	214	213	1.1	1.1
1.2.3 Tea	45	45	50	50	11.6	11.6
1.2.4 Others	1,008	1,008	999	1,010	0.2	0.2
1.3 Beverage & Tobacco	**156**	**156**	**146**	**147**	**–5.9**	**–5.9**
1.4 Textiles	**2,099**	**2,099**	**2,013**	**2,035**	**–3.0**	**–3.0**
1.4.1 Cotton Textiles	1,057	1,057	963	977	–7.6	–7.6
1.4.2 Jute Textiles	22	22	21	21	–3.9	–3.9
1.4.3 Man-Made Textiles	243	243	266	267	10.0	10.0
1.4.4 Other Textiles	776	776	762	770	–0.9	–0.9
1.5 Leather & Leather Products	**113**	**113**	**110**	**111**	**–2.1**	**–2.1**
1.6 Wood & Wood Products	**109**	**109**	**118**	**120**	**10.2**	**10.2**
1.7 Paper & Paper Products	**306**	**306**	**302**	**303**	**–1.0**	**–1.0**
1.8 Petroleum, Coal Products & Nuclear Fuels	**651**	**651**	**557**	**631**	**–3.1**	**–3.1**
1.9 Chemicals & Chemical Products	**1,630**	**1,630**	**1,830**	**1,915**	**17.5**	**17.5**
1.9.1 Fertiliser	306	306	283	400	30.9	30.9
1.9.2 Drugs & Pharmaceuticals	484	484	507	505	4.4	4.4
1.9.3 Petro Chemicals	387	387	509	467	20.7	20.7
1.9.4 Others	453	453	531	542	19.7	19.7
1.10 Rubber, Plastic & their Products	**424**	**424**	**452**	**458**	**8.1**	**8.1**
1.11 Glass & Glassware	**85**	**85**	**100**	**99**	**17.0**	**17.0**
1.12 Cement & Cement Products	**526**	**526**	**550**	**557**	**5.9**	**5.9**
1.13 Basic Metal & Metal Product	**4,160**	**4,160**	**3,707**	**3,716**	**–10.7**	**–10.7**
1.13.1 Iron & Steel	3,262	3,262	2,851	2,829	–13.3	–13.3
1.13.2 Other Metal & Metal Product	898	898	856	887	–1.3	–1.3
1.14 All Engineering	**1,553**	**1,553**	**1,632**	**1,686**	**8.6**	**8.6**
1.14.1 Electronics	344	344	375	379	10.1	10.1
1.14.2 Others	1,210	1,210	1,257	1,308	8.1	8.1
1.15 Vehicles, Vehicle Parts & Transport Equipment	**787**	**787**	**799**	**799**	**1.4**	**1.4**
1.16 Gems & Jewellery	**727**	**727**	**711**	**720**	**–0.9**	**–0.9**
1.17 Construction	**901**	**901**	**959**	**995**	**10.4**	**10.4**
1.18 Infrastructure	**8,909**	**8,909**	**9,866**	**10,559**	**18.5**	**18.5**
1.18.1 Power	5,196	5,196	5,544	5,690	9.5	9.5
1.18.2 Telecommunications	846	846	915	1,156	36.7	36.7
1.18.3 Roads	1,665	1,665	1,892	1,869	12.2	12.2
1.18.4 Other Infrastructure	1,202	1,202	1,515	1,845	53.5	53.5
1.19 Other Industries	**1,890**	**1,890**	**1,930**	**2,020**	**6.8**	**6.8**

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

(₹ Billion)

Item	Last Reporting Friday (in case of March)/Last Friday/ Reporting Friday								
	2017-18	2018		2019					
		Feb, 23	Dec, 28	Jan, 04	Jan, 18	Jan, 25	Feb, 01	Feb, 15	Feb, 22
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	31	31	31	32	32	31	32	32	31
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	**540.9**	**540.3**	**553.5**	**576.0**	**572.6**	**552.7**	**573.8**	**587.8**	**610.2**
2 Demand and Time Liabilities									
2.1 Demand Liabilities	**158.0**	**149.1**	**172.7**	**176.2**	**180.4**	**174.1**	**180.6**	**199.7**	**182.0**
2.1.1 Deposits									
2.1.1.1 Inter-Bank	41.7	41.8	50.2	51.0	49.9	48.7	48.1	51.3	44.6
2.1.1.2 Others	89.9	84.4	90.4	93.8	93.1	90.2	93.9	95.4	100.8
2.1.2 Borrowings from Banks	1.2	0.0	2.5	3.1	8.6	8.7	3.7	4.4	4.6
2.1.3 Other Demand Liabilities	25.2	23.0	29.6	28.2	28.7	26.5	34.9	48.6	31.9
2.2 Time Liabilities	**797.9**	**880.0**	**862.5**	**892.2**	**891.4**	**883.5**	**896.4**	**926.6**	**939.5**
2.2.1 Deposits									
2.2.1.1 Inter-Bank	336.5	417.0	392.6	403.0	405.0	408.5	408.5	426.1	423.1
2.2.1.2 Others	451.0	455.9	463.1	482.2	479.5	462.4	479.9	492.4	509.4
2.2.2 Borrowings from Banks	3.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.4
2.2.3 Other Time Liabilities	7.3	7.1	6.8	6.9	6.9	12.6	8.1	7.1	6.5
3 Borrowing from Reserve Bank	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 Borrowings from a notified bank / Government	404.8	448.5	516.0	512.8	510.4	512.3	511.1	503.4	506.8
4.1 Demand	112.3	136.7	169.1	172.2	167.2	168.8	172.4	167.1	174.7
4.2 Time	292.5	311.9	346.9	340.6	343.2	343.5	338.7	336.3	332.1
5 Cash in Hand and Balances with Reserve Bank	**55.6**	**45.0**	**45.9**	**45.7**	**46.0**	**46.4**	**48.2**	**48.2**	**48.9**
5.1 Cash in Hand	2.8	3.1	3.0	3.0	3.1	2.9	3.0	3.1	2.9
5.2 Balance with Reserve Bank	52.8	41.9	42.9	42.7	42.9	43.5	45.2	45.1	46.0
6 Balances with Other Banks in Current Account	**15.0**	**7.4**	**12.8**	**8.8**	**9.2**	**8.5**	**11.6**	**11.2**	**12.1**
7 Investments in Government Securities	**295.6**	**286.2**	**309.1**	**316.6**	**318.5**	**313.0**	**317.3**	**312.3**	**307.3**
8 Money at Call and Short Notice	**208.8**	**186.4**	**232.9**	**166.6**	**165.2**	**174.0**	**169.6**	**168.7**	**252.0**
9 Bank Credit (10.1+11)	**434.4**	**502.4**	**561.8**	**564.1**	**576.9**	**579.5**	**574.3**	**593.0**	**590.3**
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	**434.4**	**502.3**	**561.8**	**564.0**	**576.8**	**579.5**	**574.2**	**593.0**	**590.2**
10.2 Due from Banks	668.5	731.0	817.8	815.6	812.8	812.7	804.5	806.6	810.9
11 Bills Purchased and Discounted	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Prices and Production

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

Group/Sub group	2018-19			Rural			Urban			Combined		
	Rural	Urban	Combined	Mar. 18	Feb. 19	Mar. 19	Mar. 18	Feb. 19	Mar. 19	Mar. 18	Feb. 19	Mar. 19
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	**139.5**	**138.4**	**139.1**	**138.6**	**137.2**	**137.3**	**134.8**	**138.0**	**139.6**	**137.2**	**137.5**	**138.1**
1.1 Cereals and products	137.8	137.2	137.6	136.8	136.8	137.0	135.0	139.4	139.7	136.2	137.6	137.9
1.2 Meat and fish	149.5	147.5	148.8	143.8	153.0	154.1	143.1	150.1	151.1	143.6	152.0	153.0
1.3 Egg	137.3	137.3	137.3	140.0	139.1	138.7	135.5	145.3	142.9	138.3	141.5	140.3
1.4 Milk and products	142.7	141.3	142.2	142.0	142.5	142.5	139.9	141.7	141.9	141.2	142.2	142.3
1.5 Oils and fats	124.0	117.6	121.6	123.2	124.1	124.1	116.5	118.4	118.4	120.7	122.0	122.0
1.6 Fruits	146.8	143.4	145.2	152.9	135.8	136.1	138.5	137.0	139.4	146.2	136.4	137.6
1.7 Vegetables	141.4	142.1	141.6	138.0	128.7	128.2	128.0	131.6	141.2	134.6	129.7	132.6
1.8 Pulses and products	124.1	115.3	121.1	129.3	121.5	122.3	115.5	119.9	120.7	124.6	121.0	121.8
1.9 Sugar and confectionery	111.9	110.8	111.5	117.1	108.3	108.3	114.2	110.4	110.4	116.1	109.0	109.0
1.10 Spices	138.8	140.7	139.4	136.3	139.2	138.9	140.7	140.8	140.7	137.8	139.7	139.5
1.11 Non-alcoholic beverages	134.9	127.5	131.8	131.2	137.4	137.5	126.2	128.3	128.5	129.1	133.6	133.7
1.12 Prepared meals, snacks, sweets	155.3	151.3	153.5	152.8	156.2	156.5	147.6	153.5	153.9	150.4	154.9	155.3
2 Pan, tobacco and intoxicants	**159.4**	**162.9**	**160.4**	**155.1**	**162.8**	**162.9**	**159.7**	**164.9**	**165.3**	**156.3**	**163.4**	**163.5**
3 Clothing and footwear	**150.3**	**139.3**	**145.9**	**148.3**	**149.9**	**150.2**	**135.2**	**141.4**	**141.6**	**143.1**	**146.5**	**146.8**
3.1 Clothing	151.2	141.0	147.2	149.2	150.5	150.8	136.7	143.3	143.5	144.3	147.7	147.9
3.2 Footwear	145.2	129.5	138.7	143.0	146.1	146.1	126.7	130.8	131.2	136.2	139.7	139.9
4 Housing	**--**	**145.6**	**145.6**	**--**	**--**	**--**	**142.0**	**148.5**	**149.0**	**142.0**	**148.5**	**149.0**
5 Fuel and light	**147.0**	**129.3**	**140.3**	**142.6**	**145.3**	**146.5**	**126.4**	**127.1**	**128.8**	**136.5**	**138.4**	**139.8**
6 Miscellaneous	**138.6**	**131.1**	**134.9**	**133.3**	**142.2**	**142.4**	**127.1**	**132.4**	**132.8**	**130.3**	**137.4**	**137.7**
6.1 Household goods and services	145.9	134.8	140.6	139.9	150.1	150.1	130.8	136.6	136.8	135.6	143.7	143.8
6.2 Health	143.5	135.5	140.5	136.7	149.9	150.4	130.5	138.5	139.2	134.3	145.6	146.2
6.3 Transport and communication	128.5	120.3	124.2	124.6	129.2	129.9	117.8	119.2	119.9	121.0	123.9	124.6
6.4 Recreation and amusement	140.4	130.3	134.7	135.1	143.4	143.8	126.8	132.2	133.0	130.4	137.1	137.7
6.5 Education	149.4	144.5	146.5	142.7	155.5	155.6	137.8	146.6	146.7	139.8	150.3	150.4
6.6 Personal care and effects	132.6	129.9	131.5	129.3	134.9	134.0	126.7	133.0	132.5	128.2	134.1	133.4
General Index (All Groups)	**141.3**	**137.7**	**139.6**	**138.7**	**141.0**	**141.2**	**134.0**	**138.6**	**139.5**	**136.5**	**139.9**	**140.4**

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

No. 19: Other Consumer Price Indices

Item	Base Year	Linking Factor	2018-19	2018	2019	
				Mar.	Feb.	Mar.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2001	4.63	300	287	307	309
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	907	887	917	924
3 Consumer Price Index for Rural Labourers	1986-87	–	915	894	925	932

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

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

Item	2018-19	2018	2019	
		Mar.	Feb.	Mar.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	31,193	30,420	33,217	32,036
2 Silver (₹ per kilogram)	38,404	38,332	40,059	38,044

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	2018-19	2018	2019		
			Mar.	Jan.	Feb. (P)	Mar. (P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**119.8**	**116.3**	**119.2**	**119.5**	**120.0**
1.1 PRIMARY ARTICLES	**22.618**	**134.2**	**128.2**	**133.8**	**134.2**	**134.7**
1.1.1 FOOD ARTICLES	**15.256**	**143.7**	**137.3**	**144.2**	**143.8**	**145.1**
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	146.7	140.5	151.8	153.9	153.4
1.1.1.2 Fruits & Vegetables	3.475	147.6	132.3	140.5	136.2	144.4
1.1.1.3 Milk	4.440	143.1	140.7	143.4	142.9	143.2
1.1.1.4 Eggs,Meat & Fish	2.402	138.0	133.1	142.6	143.8	140.9
1.1.1.5 Condiments & Spices	0.529	129.6	128.0	129.1	127.7	125.5
1.1.1.6 Other Food Articles	0.948	144.4	143.4	146.1	147.7	147.7
1.1.2 NON-FOOD ARTICLES	**4.119**	**123.4**	**120.1**	**123.4**	**126.8**	**123.5**
1.1.2.1 Fibres	0.839	127.0	119.1	127.2	125.3	127.6
1.1.2.2 Oil Seeds	1.115	140.5	138.7	144.1	146.9	145.5
1.1.2.3 Other non-food Articles	1.960	107.9	107.6	102.9	109.2	102.2
1.1.2.4 Floriculture	0.204	164.0	143.7	191.4	193.0	190.4
1.1.3 MINERALS	**0.833**	**136.0**	**138.3**	**136.7**	**139.3**	**136.7**
1.1.3.1 Metallic Minerals	0.648	122.3	126.1	123.4	126.2	123.4
1.1.3.2 Other Minerals	0.185	183.7	180.8	183.3	185.0	183.3
1.1.4 CRUDE PETROLEUM & NATURAL GAS	**2.410**	**92.0**	**81.2**	**84.7**	**84.8**	**87.6**
1.2 FUEL & POWER	**13.152**	**104.2**	**98.0**	**99.3**	**101.0**	**103.3**
1.2.1 COAL	**2.138**	**123.3**	**122.6**	**123.6**	**123.6**	**123.6**
1.2.1.1 Coking Coal	0.647	132.9	131.7	133.9	133.9	133.9
1.2.1.2 Non-Coking Coal	1.401	119.0	119.0	119.0	119.0	119.0
1.2.1.3 Lignite	0.090	120.3	113.5	120.0	120.0	121.2
1.2.2 MINERAL OILS	**7.950**	**96.7**	**88.5**	**88.4**	**91.3**	**95.0**
1.2.3 ELECTRICITY	**3.064**	**110.1**	**105.4**	**110.7**	**110.7**	**110.7**
1.3 MANUFACTURED PRODUCTS	**64.231**	**117.9**	**115.8**	**118.1**	**118.1**	**118.3**
1.3.1 MANUFACTURE OF FOOD PRODUCTS	**9.122**	**128.6**	**127.9**	**128.4**	**128.7**	**128.5**
1.3.1.1 Processing and Preserving of meat	0.134	136.7	136.4	135.3	134.3	133.9
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	132.2	123.4	135.7	134.0	130.3
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	114.3	117.6	112.4	113.1	111.2
1.3.1.4 Vegetable and Animal oils and Fats	2.643	117.6	117.0	114.8	115.4	114.2
1.3.1.5 Dairy products	1.165	136.1	139.7	134.6	134.4	134.2
1.3.1.6 Grain mill products	2.010	141.7	137.7	144.4	144.6	144.2
1.3.1.7 Starches and Starch products	0.110	116.5	112.7	124.7	128.4	131.7
1.3.1.8 Bakery products	0.215	129.2	127.4	130.0	130.5	131.3
1.3.1.9 Sugar, Molasses & honey	1.163	111.3	115.4	111.4	112.0	112.3
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	126.7	127.1	127.7	127.4	126.6
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	134.5	129.2	136.4	142.6	135.1
1.3.1.12 Tea & Coffee products	0.371	137.7	132.1	131.1	128.1	131.7
1.3.1.13 Processed condiments & salt	0.163	122.1	122.5	124.9	125.3	124.4
1.3.1.14 Processed ready to eat food	0.024	127.0	127.9	128.4	128.2	129.1
1.3.1.15 Health supplements	0.225	143.5	140.0	148.2	154.0	156.6
1.3.1.16 Prepared animal feeds	0.356	157.4	152.9	159.1	159.2	161.4
1.3.2 MANUFACTURE OF BEVERAGES	**0.909**	**120.7**	**119.7**	**121.9**	**121.6**	**121.9**
1.3.2.1 Wines & spirits	0.408	113.8	112.8	115.3	114.6	114.5
1.3.2.2 Malt liquors and Malt	0.225	120.5	119.2	121.6	121.4	122.1
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	131.2	130.5	131.9	132.0	132.8
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	**0.514**	**150.1**	**150.3**	**150.7**	**148.9**	**153.7**
1.3.3.1 Tobacco products	0.514	150.1	150.3	150.7	148.9	153.7
1.3.4 MANUFACTURE OF TEXTILES	**4.881**	**117.9**	**114.2**	**119.0**	**119.0**	**118.7**
1.3.4.1 Preparation and Spinning of textile fibres	2.582	110.6	106.8	111.3	110.8	110.4
1.3.4.2 Weaving & Finishing of textiles	1.509	127.3	123.2	128.4	129.5	129.6
1.3.4.3 Knitted and Crocheted fabrics	0.193	112.9	110.6	112.8	112.5	111.2
1.3.4.4 Made-up textile articles, Except apparel	0.299	130.3	124.9	134.5	134.2	135.1
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	138.8	137.8	140.2	139.3	135.6
1.3.4.6 Other textiles	0.201	118.4	118.6	119.4	119.0	116.8
1.3.5 MANUFACTURE OF WEARING APPAREL	**0.814**	**138.9**	**137.7**	**138.3**	**139.2**	**138.0**
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	139.7	137.5	139.3	140.9	139.2
1.3.5.2 Knitted and Crocheted apparel	0.221	136.8	138.2	135.7	134.6	134.6

No. 21: Wholesale Price Index *(Contd.)*

(Base: 2011-12 = 100)

Commodities	Weight	2018-19	2018	2019		
			Mar.	Jan.	Feb. (P)	Mar. (P)
	1	2	3	4	5	6
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	**0.535**	**121.8**	**120.4**	**121.3**	**120.6**	**120.2**
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	111.1	108.7	107.7	106.8	103.9
1.3.6.2 Luggage, HandbAgs, Saddlery and Harness	0.075	135.1	131.2	135.7	135.5	135.4
1.3.6.3 Footwear	0.318	123.5	123.1	124.0	123.3	123.9
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	**0.772**	**133.5**	**131.4**	**134.2**	**134.6**	**135.7**
1.3.7.1 Saw milling and Planing of wood	0.124	124.2	120.0	125.5	125.2	124.5
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	136.2	133.2	137.2	138.3	137.4
1.3.7.3 Builder's carpentry and Joinery	0.036	158.7	158.3	157.0	157.0	171.2
1.3.7.4 Wooden containers	0.119	124.2	128.1	124.0	122.1	129.9
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	**1.113**	**123.4**	**120.3**	**124.9**	**124.5**	**124.3**
1.3.8.1 Pulp, Paper and Paperboard	0.493	129.4	123.5	131.5	131.2	130.9
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	116.7	115.9	117.9	117.8	116.5
1.3.8.3 Other articles of paper and Paperboard	0.306	120.6	119.5	121.3	120.6	121.8
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	**0.676**	**146.5**	**144.5**	**145.4**	**145.6**	**145.8**
1.3.9.1 Printing	0.676	146.5	144.5	145.4	145.6	145.8
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	**6.465**	**119.0**	**115.5**	**119.6**	**119.5**	**119.7**
1.3.10.1 Basic chemicals	1.433	125.0	118.3	125.5	125.7	125.4
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	121.0	118.9	122.7	122.7	122.9
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	117.6	114.6	115.7	115.3	115.6
1.3.10.4 Pesticides and Other agrochemical products	0.454	120.2	117.0	122.5	122.0	124.2
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	112.7	108.3	113.9	114.4	113.7
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	116.8	114.8	118.8	118.6	119.2
1.3.10.7 Other chemical products	0.692	116.6	114.7	116.4	116.1	115.9
1.3.10.8 Man-made fibres	0.296	104.0	101.8	102.3	102.8	102.7
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	**1.993**	**123.4**	**120.7**	**126.1**	**125.9**	**125.7**
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	123.4	120.7	126.1	125.9	125.7
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	**2.299**	**109.5**	**107.6**	**110.1**	**109.4**	**109.9**
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	98.9	97.9	100.1	99.6	99.5
1.3.12.2 Other Rubber Products	0.272	91.8	91.0	92.8	92.4	92.7
1.3.12.3 Plastics products	1.418	117.5	115.0	117.7	116.9	117.6
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	**3.202**	**115.9**	**114.0**	**116.3**	**117.5**	**116.6**
1.3.13.1 Glass and Glass products	0.295	121.4	118.0	124.5	125.5	125.5
1.3.13.2 Refractory products	0.223	111.1	109.8	112.3	111.1	110.5
1.3.13.3 Clay Building Materials	0.121	98.2	97.6	98.8	100.9	99.0
1.3.13.4 Other Porcelain and Ceramic Products	0.222	112.7	112.4	112.3	114.4	114.4
1.3.13.5 Cement, Lime and Plaster	1.645	114.3	113.6	115.2	116.9	117.2
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	121.5	120.1	122.5	122.8	121.9
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	118.9	117.0	118.9	118.5	120.2
1.3.13.8 Other Non-Metallic Mineral Products	0.169	130.7	116.2	122.2	123.3	105.2
1.3.14 MANUFACTURE OF BASIC METALS	**9.646**	**112.2**	**109.6**	**110.1**	**110.5**	**111.0**
1.3.14.1 Inputs into steel making	1.411	113.0	109.8	108.8	108.5	108.5
1.3.14.2 Metallic Iron	0.653	117.9	116.1	115.5	114.2	114.3
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	99.5	98.1	97.9	97.9	98.1
1.3.14.4 Mild Steel -Long Products	1.081	110.2	105.9	109.5	109.7	110.1
1.3.14.5 Mild Steel - Flat products	1.144	119.6	117.8	115.6	115.2	117.1
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	111.7	108.9	109.3	111.6	111.3
1.3.14.7 Stainless Steel - Semi Finished	0.924	112.7	109.8	107.4	112.5	109.9
1.3.14.8 Pipes & tubes	0.205	126.6	124.8	127.8	128.6	128.2
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	112.1	110.8	109.6	109.8	110.5
1.3.14.10 Castings	0.925	109.5	107.0	110.3	109.9	113.8
1.3.14.11 Forgings of steel	0.271	126.8	116.8	137.5	140.2	139.0
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	**3.155**	**115.0**	**112.0**	**116.4**	**115.7**	**116.2**
1.3.15.1 Structural Metal Products	1.031	112.8	109.8	114.2	114.2	115.2
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	127.1	125.2	127.6	123.1	123.8
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	105.9	109.1	104.8	104.8	104.8
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	96.0	90.3	98.7	101.5	102.5
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	99.7	99.1	99.6	99.9	100.1
1.3.15.6 Other Fabricated Metal Products	0.728	123.1	118.8	125.7	125.2	125.0
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	**2.009**	**111.8**	**110.6**	**111.5**	**111.8**	**111.3**
1.3.16.1 Electronic Components	0.402	100.9	102.3	99.5	98.5	98.4
1.3.16.2 Computers and Peripheral Equipment	0.336	132.5	127.4	135.0	135.0	135.0

No. 21: Wholesale Price Index *(Concld.)*

(Base: 2011-12 = 100)

Commodities	Weight	2018-19	2018	2019		
			Mar.	Jan.	Feb. (P)	Mar. (P)
	1	2	3	4	5	6
1.3.16.3 Communication Equipment	0.310	116.8	114.0	116.5	116.6	116.6
1.3.16.4 Consumer Electronics	0.641	103.9	103.4	103.8	103.9	102.4
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	109.2	109.1	105.3	108.9	109.0
1.3.16.6 Watches and Clocks	0.076	137.8	137.1	135.6	138.7	136.6
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	103.4	100.3	104.4	104.2	106.6
1.3.16.8 Optical instruments and Photographic equipment	0.008	108.7	112.6	107.3	107.3	107.5
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	**2.930**	**111.7**	**110.1**	**112.1**	**112.0**	**112.1**
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	107.6	106.1	108.2	108.2	108.5
1.3.17.2 Batteries and Accumulators	0.236	117.7	117.2	117.3	116.6	116.8
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	126.4	112.4	128.8	127.7	126.2
1.3.17.4 Other electronic and Electric wires and Cables	0.428	111.3	109.2	111.4	111.4	111.4
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	108.6	109.7	108.5	109.4	109.9
1.3.17.6 Domestic appliances	0.366	121.6	121.5	120.9	120.8	120.1
1.3.17.7 Other electrical equipment	0.206	108.7	108.2	110.1	110.1	110.2
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	**4.789**	**111.3**	**109.9**	**111.8**	**111.5**	**112.3**
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	103.0	102.9	103.8	103.7	105.1
1.3.18.2 Fluid power equipment	0.162	118.2	116.2	118.6	119.1	119.2
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	108.9	109.5	109.5	109.5	109.9
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	111.1	111.3	109.1	109.6	108.8
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	78.2	79.3	78.0	78.0	78.0
1.3.18.6 Lifting and Handling equipment	0.285	110.4	107.7	112.3	111.5	111.9
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	129.7	129.7	129.1	128.6	129.7
1.3.18.9 Agricultural and Forestry machinery	0.833	116.9	113.9	118.7	118.5	118.9
1.3.18.10 Metal-forming machinery and Machine tools	0.224	101.8	96.7	103.6	103.6	106.0
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	75.5	73.9	75.7	75.5	76.9
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	124.7	122.8	126.9	123.4	124.5
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	120.0	120.2	119.1	119.2	120.2
1.3.18.14 Other special-purpose machinery	0.468	123.4	121.3	122.8	123.0	124.2
1.3.18.15 Renewable electricity generating equipment	0.046	67.3	68.8	67.0	67.0	67.0
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	**4.969**	**112.8**	**111.1**	**113.3**	**113.3**	**113.5**
1.3.19.1 Motor vehicles	2.600	113.4	111.5	113.6	113.6	113.6
1.3.19.2 Parts and Accessories for motor vehicles	2.368	112.3	110.6	113.0	113.1	113.3
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	**1.648**	**111.7**	**110.4**	**112.9**	**112.9**	**113.2**
1.3.20.1 Building of ships and Floating structures	0.117	158.8	158.8	158.8	158.8	158.8
1.3.20.2 Railway locomotives and Rolling stock	0.110	104.8	105.2	105.8	105.8	105.8
1.3.20.3 Motor cycles	1.302	106.6	105.2	107.9	107.9	108.3
1.3.20.4 Bicycles and Invalid carriages	0.117	127.7	124.9	129.3	129.2	129.7
1.3.20.5 Other transport equipment	0.002	123.6	121.2	125.0	125.1	124.7
1.3.21 MANUFACTURE OF FURNITURE	**0.727**	**127.4**	**124.6**	**130.9**	**129.7**	**129.4**
1.3.21.1 Furniture	0.727	127.4	124.6	130.9	129.7	129.4
1.3.22 OTHER MANUFACTURING	**1.064**	**107.1**	**104.4**	**106.9**	**106.4**	**108.7**
1.3.22.1 Jewellery and Related articles	0.996	104.0	101.4	103.7	103.2	105.6
1.3.22.2 Musical instruments	0.001	174.1	180.0	172.1	177.0	177.5
1.3.22.3 Sports goods	0.012	127.6	125.5	129.4	128.3	126.4
1.3.22.4 Games and Toys	0.005	132.2	128.9	135.1	135.6	133.0
1.3.22.5 Medical and Dental instruments and Supplies	0.049	159.2	155.9	160.8	160.5	160.9
2 FOOD INDEX	**24.378**	**138.1**	**133.7**	**138.3**	**138.1**	**138.9**

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	2016-17	2017-18	April-February		February	
				2017-18	2018-19	2018	2019
	1	2	3	4	5	6	7
General Index	100.00	120.0	125.3	123.9	128.8	127.4	127.5
1 Sectoral Classification							
1.1 Mining	14.37	102.5	104.9	102.5	105.6	110.1	112.3
1.2 Manufacturing	77.63	121.0	126.6	125.4	130.2	129.7	129.3
1.3 Electricity	7.99	141.6	149.2	148.5	156.6	136.1	137.7
2 Use-Based Classification							
2.1 Primary Goods	34.05	117.5	121.8	120.5	124.8	119.5	120.9
2.2 Capital Goods	8.22	101.5	105.6	103.3	107.7	118.8	108.3
2.3 Intermediate Goods	17.22	122.3	125.1	124.0	123.6	124.8	118.7
2.4 Infrastructure/ Construction Goods	12.34	125.0	132.0	130.6	140.7	138.5	141.8
2.5 Consumer Durables	12.84	122.6	123.6	122.5	130.3	124.0	125.5
2.6 Consumer Non-Durables	15.33	126.5	139.9	138.5	144.2	146.6	152.9

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

Government Accounts and Treasury Bills

No. 23: Union Government Accounts at a Glance

(₹ Billion)

Item	Financial Year	April - February			
	2018-19 (Revised Estimates)	2018-19 (Actuals)	2017-18 (Actuals)	Percentage to Revised Estimates	
				2018-19	2017-18
	1	2	3	4	5
1 Revenue Receipts	**17,296.8**	**12,656.8**	**11,776.8**	**73.2**	**78.2**
1.1 Tax Revenue (Net)	14,844.1	10,939.2	10,355.5	73.7	81.6
1.2 Non-Tax Revenue	2,452.8	1,717.6	1,421.3	70.0	60.2
2 Capital Receipts	**7,275.5**	**9,231.6**	**8,214.9**	**126.9**	**115.3**
2.1 Recovery of Loans	131.6	150.4	133.0	114.3	76.1
2.2 Other Receipts	800.0	566.2	924.9	70.8	92.5
2.3 Borrowings and Other Liabilities	6,344.0	8,515.0	7,157.0	134.2	120.3
3 Total Receipts (1+2)	**24,572.4**	**21,888.4**	**19,991.7**	**89.1**	**90.1**
4 Revenue Expenditure	21,406.1	19,153.0	17,020.9	89.5	87.5
4.1 Interest Payments	5,875.7	5,011.6	4,507.3	85.3	84.9
5 Capital Expenditure	3,166.2	2,735.4	2,970.9	86.4	108.6
6 Total Expenditure (4+5)	**24,572.4**	**21,888.4**	**19,991.7**	**89.1**	**90.1**
7 Revenue Deficit (4-1)	**4,109.3**	**6,496.3**	**5,244.1**	**158.1**	**119.5**
8 Fiscal Deficit {6-(1+2.1+2.2)}	**6,344.0**	**8,515.0**	**7,157.0**	**134.2**	**120.3**
9 Gross Primary Deficit (8-4.1)	**468.3**	**3,503.4**	**2,649.7**	**748.1**	**414.0**

Source: Controller General of Accounts (CGA), Ministry of Finance, Government of India and Union Budget 2018-19.

No. 24: Treasury Bills – Ownership Pattern

(₹ Billion)

Item	2017-18	2018	2019					
		Mar. 30	Feb. 22	Mar. 1	Mar. 8	Mar. 15	Mar. 22	Mar. 29
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	680.0	680.0	262.2	245.1	216.4	186.1	200.6	185.2
1.2 Primary Dealers	134.3	134.3	105.8	110.1	120.9	122.2	141.5	178.8
1.3 State Governments	335.2	335.2	480.9	392.9	370.9	370.9	316.4	270.0
1.4 Others	221.3	221.3	426.0	408.6	396.6	393.4	328.8	277.5
2 182-day								
2.1 Banks	313.7	313.7	384.8	364.2	334.5	322.8	336.4	319.5
2.2 Primary Dealers	273.2	273.2	389.4	412.4	426.1	396.1	367.9	387.4
2.3 State Governments	158.6	158.6	336.3	295.7	285.7	285.7	280.4	280.4
2.4 Others	116.9	116.9	173.7	155.9	161.3	193.0	198.0	185.7
3 364-day								
3.1 Banks	330.8	330.8	468.3	497.4	525.8	517.1	511.6	488.1
3.2 Primary Dealers	700.4	700.4	747.1	711.6	700.6	704.4	704.2	741.7
3.3 State Governments	127.3	127.3	189.4	189.4	189.4	189.4	189.4	188.9
3.4 Others	407.0	407.0	645.5	647.2	618.2	620.0	628.9	623.9
4 14-day Intermediate								
4.1 Banks	–	–	–	–	–	–	–	–
4.2 Primary Dealers	–	–	–	–	–	–	–	–
4.3 State Governments	2,124.1	2,124.1	1,570.8	1,614.9	1,265.1	1,439.6	1,728.3	1,656.1
4.4 Others	1.7	1.7	3.2	4.2	3.5	2.1	3.3	2.5
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	3,798.8	3,798.8	4,609.3	4,430.5	4,346.6	4,301.2	4,204.1	4,127.0

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

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										
2018-19										
Feb. 27	40	52	143.53	60.01	28	39.99	60.01	100.00	98.43	6.3977
Mar. 6	40	54	227.20	8.01	31	39.99	8.01	48.00	98.43	6.3977
Mar. 13	40	53	293.27	12.12	20	39.88	12.12	52.00	98.44	6.3563
Mar. 20	40	61	152.26	13.51	41	39.99	13.51	53.50	98.45	6.3149
Mar. 27	40	63	157.79	10.41	44	39.99	10.41	50.40	98.45	6.3149
182-day Treasury Bills										
2018-19										
Feb. 27	30	40	93.33	0.07	19	29.93	0.07	30.00	96.87	6.4800
Mar. 6	30	44	122.14	0.00	17	30.00	0.00	30.00	96.88	6.4587
Mar. 13	30	49	126.39	0.18	26	29.82	0.18	30.00	96.89	6.4373
Mar. 20	30	49	124.88	0.18	17	29.82	0.18	30.00	96.92	6.3732
Mar. 27	30	40	122.09	0.00	12	30.00	0.00	30.00	96.93	6.3519
364-day Treasury Bills										
2018-19										
Feb. 27	30	56	102.16	0.00	28	30.00	0.00	30.00	93.87	6.5482
Mar. 6	30	56	131.36	0.00	15	30.00	0.00	30.00	93.90	6.5141
Mar. 13	30	59	129.93	0.00	28	30.00	0.00	30.00	93.92	6.4914
Mar. 20	30	65	138.25	0.00	22	30.00	0.00	30.00	93.98	6.4232
Mar. 27	30	50	107.34	0.00	11	30.00	0.00	30.00	94.01	6.3892

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
March 1, 2019	4.80-6.35	6.18
March 2, 2019	4.80-6.35	6.07
March 5, 2019	4.80-6.50	6.15
March 6, 2019	4.80-6.30	6.18
March 7, 2019	4.80-6.25	6.14
March 8, 2019	4.80-6.30	6.15
March 11, 2019	4.80-6.30	6.16
March 12, 2019	4.80-6.30	6.14
March 13, 2019	4.80-6.27	6.17
March 14, 2019	4.80-6.30	6.15
March 15, 2019	4.80-6.85	6.23
March 16, 2019	4.90-6.55	6.25
March 18, 2019	4.80-6.35	6.20
March 19, 2019	4.80-6.30	6.20
March 20, 2019	4.80-6.30	6.20
March 22, 2019	4.80-6.28	6.19
March 25, 2019	4.80-7.25	6.19
March 26, 2019	4.80-7.25	6.16
March 27, 2019	4.80-7.35	6.23
March 28, 2019	4.80-7.35	6.24
March 29, 2019	5.00-9.75	7.02
March 30, 2019	5.00-9.50	8.19
April 2, 2019	4.80-6.50	6.19
April 3, 2019	4.80-7.00	6.22
April 4, 2019	4.80-6.25	6.13
April 5, 2019	4.50-6.25	5.99
April 8, 2019	4.40-6.25	5.98
April 9, 2019	4.40-6.10	5.97
April 10, 2019	4.40-6.25	5.99
April 11, 2019	4.60-6.40	6.02
April 12, 2019	4.40-6.15	6.05
April 15, 2019	4.40-6.15	6.05

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2018	2019			
	Mar. 30	Feb. 15	Mar. 1	Mar. 15	Mar. 29
	1	2	3	4	5
1 Amount Outstanding (₹Billion)	1,857.3	2,002.5	2,088.7	2,204.6	2,722.6
1.1 Issued during the fortnight (₹ Billion)	331.3	333.8	292.0	472.4	524.1
2 Rate of Interest (per cent)	6.65-8.50	6.44-8.90	6.45-8.79	7.22-8.95	7.09-8.45

No. 28: Commercial Paper

Item	2018	2019			
	Mar. 31	Feb. 15	Feb. 28	Mar. 15	Mar. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Billion)	3,725.8	5,242.3	5,208.1	5,309.5	4,830.8
1.1 Reported during the fortnight (₹ Billion)	999.2	1,035.5	900.8	1,240.6	1,013.0
2 Rate of Interest (per cent)	6.49-14.00	6.41-13.40	6.36-11.74	6.44-9.98	6.54-12.60

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Billion)

Item	2017-18	2018	2019				
		Mar. 30	Mar. 1	Mar. 8	Mar. 15	Mar. 22	Mar. 29
	1	2	3	4	5	6	7
1 Call Money	245.5	395.8	411.4	388.6	342.2	445.0	602.5
2 Notice Money	36.6	45.3	93.7	2.7	125.2	5.5	51.1
3 Term Money	9	18.4	9.7	3.6	6.7	3.6	4.8
4 CBLO/TRIPARTY REPO	2,130.1	2,226.0	3,290.1	2,443.8	3,039.6	2,225.1	2,697.9
5 Market Repo	1,921.8	1,587.9	2,281.6	1,577.2	2,043.5	1,591.0	1,757.4
6 Repo in Corporate Bond	3.8	3.8	19.4	27.4	18.7	37.7	87.8
7 Forex (US $ million)	55,345	105,617	81,741	71,888	69,677	83,911	98,933
8 Govt. of India Dated Securities	808.7	790.6	563.7	473.6	649.7	720.1	654.7
9 State Govt. Securities	45.3	60.3	44.0	60.3	75.6	79.9	84.2
10 Treasury Bills							
10.1 91-Day	35.5	34.1	22.8	23.5	15.0	35.9	35.5
10.2 182-Day	10.2	2.5	7.7	10.8	17.1	15.9	9.5
10.3 364-Day	10.3	16.9	7.7	43.0	20.3	32.3	18.1
10.4 Cash Management Bills	13	–	56.0	27.0	22.2	–	–
11 Total Govt. Securities (8+9+10)	923.0	904.2	701.9	638.2	799.9	884.1	801.9
11.1 RBI	–	2.0	26.2	31.3	25.2	9.9	7.7

Note : Collateralised Borrowing and Lending Obligation (CBLO) segment of the money market has been discontinued and replaced with Triparty Repo with effect from November 05, 2018.

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

(₹ Billion)

Security & Type of Issue	2018-19		2017-18 (Apr.-Mar.)		2018-19 (Apr.-Mar.) *		Mar. 2018		Mar. 2019 *	
	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	**129**	**167.5**	**214**	**679.9**	**129**	**167.5**	**35**	**103.8**	**9**	**1.5**
1A Premium	124	160.8	211	657.8	124	160.8	35	99.0	9	1.2
1.1 Public	119	146.1	193	466.0	119	146.1	33	102.3	8	1.3
1.1.1 Premium	115	141.2	190	448.7	115	141.2	33	97.6	8	1.0
1.2 Rights	10	21.5	21	213.9	10	21.5	2	1.5	1	0.3
1.2.1 Premium	9	19.6	21	209.1	9	19.6	2	1.5	1	0.2
2 Preference Shares	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
2.1 Public	–	–	–	–	–	–	–	–	–	–
2.2 Rights	–	–	–	–	–	–	–	–	–	–
3 Debentures	**21**	**337.2**	**7**	**49.5**	**21**	**337.2**	**1**	**4.9**	**–**	**–**
3.1 Convertible	–	–	–	–	–	–	–	–	–	–
3.1.1 Public	–	–	–	–	–	–	–	–	–	–
3.1.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2 Non-Convertible	21	337.2	7	49.5	21	337.2	1	4.9	–	–
3.2.1 Public	21	337.2	7	49.5	21	337.2	1	4.9	–	–
3.2.2 Rights	–	–	–	–	–	–	–	–	–	–
4 Bonds	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
4.1 Public	–	–	–	–	–	–	–	–	–	–
4.2 Rights	–	–	–	–	–	–	–	–	–	–
5 Total (1+2+3+4)	**150**	**504.7**	**221**	**729.5**	**150**	**504.7**	**36**	**108.7**	**9**	**1.5**
5.1 Public	140	483.2	200	515.6	140	483.2	34	107.2	8	1.3
5.2 Rights	10	21.5	21	213.9	10	21.5	2	1.5	1	0.3

* : Data is Provisional

Note : Since April 2018, monthly data is compiled on the basis of closing date of issues as against the earlier practice of compilation on the basis of opening date.

Source : Securities and Exchange Board of India.

External Sector

No. 31: Foreign Trade

Item	Unit	2018-19	2018			2019		
			Mar.	Nov.	Dec.	Jan.	Feb.	Mar.
		1	2	3	4	5	6	7
1 Exports	₹ Billion	23,039.0	1,906.2	1,876.9	1,974.1	1,862.9	1,900.7	2,261.4
	US $ Million	329,536.2	29,316.4	26,121.6	27,909.9	26,337.3	26,687.6	32,548.0
1.1 Oil	₹ Billion	3,245.0	215.4	344.6	294.8	226.0	217.8	245.2
	US $ Million	46,350.8	3,312.7	4,795.4	4,167.4	3,195.7	3,058.1	3,529.8
1.2 Non-oil	₹ Billion	19,794.0	1,690.8	1,532.4	1,679.3	1,636.9	1,682.9	2,016.1
	US $ Million	283,185.3	26,003.7	21,326.2	23,742.5	23,141.6	23,629.5	29,018.2
2 Imports	₹ Billion	35,876.8	2,784.4	3,140.5	2,992.1	2,906.6	2,582.8	3,018.1
	US $ Million	513,085.9	42,823.1	43,706.0	42,302.9	41,092.9	36,264.5	43,439.9
2.1 Oil	₹ Billion	9,860.2	723.6	975.1	759.5	796.0	667.7	816.1
	US $ Million	140,883.8	11,128.6	13,570.5	10,737.4	11,252.9	9,375.6	11,746.0
2.2 Non-oil	₹ Billion	26,016.6	2,060.8	2,165.4	2,232.7	2,110.7	1,915.1	2,202.0
	US $ Million	372,202.1	31,694.5	30,135.4	31,565.6	29,840.0	26,888.9	31,693.9
3 Trade Balance	₹ Billion	–12,837.9	–878.2	–1,263.5	–1,018.0	–1,043.7	–682.1	–756.8
	US $ Million	–183,549.7	–13,506.7	–17,584.3	–14,393.0	–14,755.7	–9,576.9	–10,891.9
3.1 Oil	₹ Billion	–6,615.2	–508.2	–630.5	–464.7	–569.9	–449.9	–570.9
	US $ Million	–94,532.9	–7,815.9	–8,775.1	–6,570.0	–8,057.3	–6,317.5	–8,216.2
3.2 Non-oil	₹ Billion	–6,222.7	–370.0	–633.0	–553.3	–473.8	–232.1	–185.9
	US $ Million	–89,016.8	–5,690.8	–8,809.2	–7,823.0	–6,698.4	–3,259.5	–2,675.7

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

No. 32: Foreign Exchange Reserves

Item	Unit	2018	2019					
		Apr. 20	Mar. 15	Mar. 22	Mar. 29	Apr. 5	Apr. 12	Apr. 19
		1	2	3	4	5	6	7
1 Total Reserves	**₹ Billion**	**27,935**	**28,122**	**27,981**	**28,539**	**28,632**	**28,758**	**28,744**
	US $ Million	**423,583**	**405,638**	**406,668**	**411,905**	**413,781**	**414,886**	**414,147**
1.1 Foreign Currency Assets	₹ Billion	26,299	26,147	26,009	26,566	26,718	26,812	26,798
	US $ Million	398,486	377,774	378,805	384,054	386,116	386,762	386,034
1.2 Gold	₹ Billion	1,397	1,667	1,667	1,667	1,607	1,612	1,612
	US $ Million	21,484	23,408	23,408	23,408	23,226	23,303	23,303
1.3 SDRs	SDRs Million	1,059	1,049	1,049	1,049	1,049	1,049	1,049
	₹ Billion	102	101	100	101	101	101	101
	US $ Million	1,538	1,461	1,460	1,457	1,456	1,459	1,456
1.4 Reserve Tranche Position in IMF	₹ Billion	137	207	206	207	207	233	233
	US $ Million	2,075	2,995	2,994	2,986	2,984	3,362	3,355

No. 33: NRI Deposits

(US$ Million)

Scheme	Outstanding				Flows	
	2018-19	2018	2019		2017-18	2018-19
		Mar.	Feb.	Mar.	Apr.-Mar.	Apr.-Mar.
	1	2	3	4	5	6
1 NRI Deposits	**130,416**	**126,182**	**125,599**	**130,416**	**9,676**	**10,381**
1.1 FCNR(B)	23,170	22,026	21,623	23,170	1,024	1,144
1.2 NR(E)RA	92,015	90,035	89,183	92,015	7,132	7,306
1.3 NRO	15,231	14,121	14,792	15,231	1,520	1,930

No. 34: Foreign Investment Inflows

(US$ Million)

Item	2018-19	2017-18	2018-19	2018	2019	
		Apr.-Mar.	Apr.-Mar.	Mar.	Feb.	Mar.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1–1.1.2)	**34,600**	**30,286**	**34,600**	**2,051**	**2,370**	**3,724**
1.1.1 Direct Investment to India (1.1.1.1–1. 1.1.2)	**47,200**	**39,431**	**47,200**	**3,214**	**3,091**	**6,295**
1.1.1.1 Gross Inflows/Gross Investments	**64,374**	**60,974**	**64,374**	**4,711**	**4,317**	**7,520**
1.1.1.1.1 Equity	45,059	45,521	45,059	3,377	2,925	3,661
1.1.1.1.1.1 Government (SIA/FIPB)	2,429	7,797	2,429	56	22	277
1.1.1.1.1.2 RBI	36,315	29,569	36,315	3,053	2,490	2,528
1.1.1.1.1.3 Acquisition of shares	5,622	7,491	5,622	208	353	796
1.1.1.1.1.4 Equity capital of unincorporated bodies	693	664	693	60	60	60
1.1.1.1.2 Reinvested earnings	13,570	12,542	13,570	1,131	1,131	1,131
1.1.1.1.3 Other capital	5,746	2,911	5,746	203	261	2,729
1.1.1.2 Repatriation/Disinvestment	**17,175**	**21,544**	**17,175**	**1,497**	**1,226**	**1,226**
1.1.1.2.1 Equity	16,954	21,325	16,954	1,486	1,223	1,223
1.1.1.2.2 Other capital	221	219	221	11	3	3
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3–1.1.2.4)	**12,599**	**9,144**	**12,599**	**1,162**	**721**	**2,571**
1.1.2.1 Equity capital	6,863	5,254	6,863	590	427	894
1.1.2.2 Reinvested Earnings	2,972	2,853	2,972	238	238	238
1.1.2.3 Other Capital	5,018	4,525	5,018	583	242	1,624
1.1.2.4 Repatriation/Disinvestment	2,253	3,487	2,253	248	185	185
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3–1.2.4)	**–2,056**	**22,115**	**–2,056**	**–1,390**	**–25**	**8,575**
1.2.1 GDRs/ADRs	1,820	–	1,820	–	–	–
1.2.2 FIIs	–3,587	22,165	–3,587	–1,357	974	9,574
1.2.3 Offshore funds and others	–	–	–	–	–	–
1.2.4 Portfolio investment by India	290	50	290	33	999	999
1 Foreign Investment Inflows	**32,544**	**52,401**	**32,544**	**661**	**2,345**	**12,299**

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

(US$ Million)

Item	2018-19	2018	2019		
		Mar.	Jan.	Feb.	Mar.
	1	2	3	4	5
1 Outward Remittances under the LRS	**13,787.6**	**1,120.8**	**1,336.4**	**1,046.5**	**1,476.8**
1.1 Deposit	455.9	81.0	29.6	33.2	100.6
1.2 Purchase of immovable property	84.5	13.9	4.9	4.6	10.5
1.3 Investment in equity/debt	422.9	69.4	26.9	24.5	74.4
1.4 Gift	1,370.2	139.1	106.1	103.6	161.0
1.5 Donations	8.7	0.6	0.6	0.6	0.3
1.6 Travel	4,803.8	334.7	506.1	366.4	429.2
1.7 Maintenance of close relatives	2,800.9	318.6	242.8	199.8	322.9
1.8 Medical Treatment	28.6	2.4	3.0	1.6	2.5
1.9 Studies Abroad	3,569.9	134.1	400.3	296.7	333.8
1.10 Others	242.2	26.9	16.2	15.4	41.6

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

Item	2017-18	2018-19	2018	2019	
			April	March	April
	1	2	3	4	5
36-Currency Export and Trade Based Weights (Base: 2004-05=100)					
1 Trade-Based Weights					
1.1 NEER	76.94	72.63	74.44	73.52	73.75
1.2 REER	119.71	113.99	116.26	115.00	115.37
2 Export-Based Weights					
2.1 NEER	78.89	74.17	76.32	75.11	75.35
2.2 REER	121.94	116.30	118.98	117.42	117.81
6-Currency Trade Based Weights					
1 Base: 2004-05 (April-March) =100					
1.1 NEER	67.91	63.07	64.53	63.88	64.07
1.2 REER	129.19	121.70	123.47	123.30	123.33
2 Base: 2017-18 (April-March) =100					
2.1 NEER	100.00	92.88	95.02	94.06	94.35
2.2 REER	100.00	94.20	95.57	95.44	95.46

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

(Amount in US$ Million)

Item	2017-18	2018	2019	
		Mar.	Feb.	Mar.
	1	2	3	4
1 Automatic Route				
1.1 Number	769	91	88	130
1.2 Amount	20,397	3,575	2,812	4,894
2 Approval Route				
2.1 Number	38	6	-	7
2.2 Amount	8,471	1,500	-	7,831
3 Total (1+2)				
3.1 Number	807	97	88	137
3.2 Amount	28,868	5,075	2,812	12,725
4 Weighted Average Maturity (in years)	6.10	5.70	5.80	5.10
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	1.34	1.08	1.56	1.29
5.2 Interest rate range for Fixed Rate Loans	0.00-12.25	0.00-12.05	1.20-10.50	0.00-11.65

No. 38: India's Overall Balance of Payments

(US $ Million)

Item	Oct-Dec 2017 (PR)			Oct-Dec 2018 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**320,203**	**310,768**	**9,434**	**286,966**	**291,262**	**–4,296**
1 CURRENT ACCOUNT (1.1+ 1.2)	**150,254**	**163,970**	**–13,716**	**164,437**	**181,351**	**–16,914**
1.1 MERCHANDISE	**77,541**	**121,564**	**–44,022**	**83,082**	**132,573**	**–49,491**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**72,712**	**42,406**	**30,306**	**81,355**	**48,778**	**32,577**
1.2.1 Services	50,179	29,467	20,712	55,250	33,951	21,299
1.2.1.1 Travel	7,441	4,606	2,836	7,372	4,863	2,510
1.2.1.2 Transportation	4,388	4,419	–31	4,807	5,231	–424
1.2.1.3 Insurance	611	435	176	689	419	271
1.2.1.4 G.n.i.e.	203	193	11	144	289	–145
1.2.1.5 Miscellaneous	37,536	19,815	17,721	42,237	23,149	19,088
1.2.1.5.1 Software Services	19,532	1,333	18,199	21,103	1,254	19,849
1.2.1.5.2 Business Services	9,859	9,360	499	9,978	10,131	–152
1.2.1.5.3 Financial Services	983	1,574	–591	1,324	992	332
1.2.1.5.4 Communication Services	414	239	175	673	284	390
1.2.2 Transfers	17,685	1,623	16,062	18,795	1,552	17,243
1.2.2.1 Official	96	202	–105	102	237	–134
1.2.2.2 Private	17,589	1,422	16,167	18,693	1,316	17,377
1.2.3 Income	4,848	11,316	–6,468	7,310	13,274	–5,964
1.2.3.1 Investment Income	3,693	10,745	–7,052	5,946	12,683	–6,736
1.2.3.2 Compensation of Employees	1,155	572	584	1,363	591	772
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**169,329**	**146,799**	**22,530**	**122,529**	**108,922**	**13,608**
2.1 Foreign Investment (2.1.1+2.1.2)	**93,973**	**84,329**	**9,645**	**73,262**	**67,850**	**5,412**
2.1.1 Foreign Direct Investment	15,270	10,947	4,323	16,155	8,633	7,523
2.1.1.1 In India	14,301	8,315	5,985	15,530	5,139	10,391
2.1.1.1.1 Equity	10,755	8,287	2,468	11,005	5,101	5,904
2.1.1.1.2 Reinvested Earnings	3,182	–	3,182	3,504	–	3,504
2.1.1.1.3 Other Capital	364	29	335	1,022	38	984
2.1.1.2 Abroad	969	2,631	–1,662	625	3,494	–2,869
2.1.1.2.1 Equity	969	1,190	–221	625	1,719	–1,094
2.1.1.2.2 Reinvested Earnings	0	713	–713	–	753	–753
2.1.1.2.3 Other Capital	0	728	–728	0	1,021	–1,021
2.1.2 Portfolio Investment	78,703	73,382	5,322	57,107	59,218	–2,111
2.1.2.1 In India	78,576	73,145	5,430	56,733	58,921	–2,188
2.1.2.1.1 FIIs	78,576	73,145	5,430	56,733	58,921	–2,188
2.1.2.1.1.1 Equity	63,467	61,246	2,221	45,530	47,949	–2,419
2.1.2.1.1.2 Debt	15,109	11,900	3,209	11,203	10,972	231
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	127	236	–109	374	297	77
2.2 Loans (2.2.1+2.2.2+2.2.3)	**38,158**	**32,247**	**5,911**	**20,355**	**17,463**	**2,892**
2.2.1 External Assistance	1,947	1,201	746	2,960	1,278	1,682
2.2.1.1 By India	14	31	–17	11	29	–18
2.2.1.2 To India	1,934	1,170	764	2,949	1,249	1,700
2.2.2 Commercial Borrowings	10,761	10,378	383	10,331	8,375	1,955
2.2.2.1 By India	2,755	2,623	132	3,337	3,346	–9
2.2.2.2 To India	8,006	7,755	251	6,993	5,029	1,964
2.2.3 Short Term to India	25,449	20,667	4,782	7,064	7,809	–745
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	24,456	20,667	3,789	4,433	7,809	–3,377
2.2.3.2 Suppliers' Credit up to 180 days	993	0	993	2,631	0	2,631
2.3 Banking Capital (2.3.1+2.3.2)	**25,355**	**20,775**	**4,580**	**21,193**	**16,279**	**4,913**
2.3.1 Commercial Banks	25,107	20,775	4,332	21,193	16,095	5,098
2.3.1.1 Assets	8,245	8,721	–475	5,964	1,763	4,202
2.3.1.2 Liabilities	16,861	12,054	4,807	15,228	14,332	896
2.3.1.2.1 Non-Resident Deposits	14,489	11,398	3,091	13,298	13,159	139
2.3.2 Others	248	0	248	0	185	–185
2.4 Rupee Debt Service	–	0	0	0	0	0
2.5 Other Capital	11,843	9,449	2,394	7,720	7,329	391
3 Errors & Omissions	**621**	**–**	**621**	**–**	**989**	**–989**
4 Monetary Movements (4.1+ 4.2)	0	**9,434**	**–9,434**	**4,296**	0	**4,296**
4.1 I.M.F.	0	0	0	–	–	–
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	9,434	–9,434	4,296	0	4,296

No. 39: India's Overall Balance of Payments

(₹ Billion)

Item	Oct-Dec 2017 (PR)			Oct-Dec 2018 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**20,726**	**20,116**	**611**	**20,682**	**20,992**	**–310**
1 CURRENT ACCOUNT (1.1+ 1.2)	**9,726**	**10,614**	**–888**	**11,851**	**13,070**	**–1,219**
1.1 MERCHANDISE	**5,019**	**7,869**	**–2,850**	**5,988**	**9,555**	**–3,567**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**4,707**	**2,745**	**1,962**	**5,863**	**3,516**	**2,348**
1.2.1 Services	3,248	1,907	1,341	3,982	2,447	1,535
1.2.1.1 Travel	482	298	184	531	350	181
1.2.1.2 Transportation	284	286	–2	346	377	–31
1.2.1.3 Insurance	40	28	11	50	30	20
1.2.1.4 G.n.i.e.	13	12	1	10	21	–10
1.2.1.5 Miscellaneous	2,430	1,283	1,147	3,044	1,668	1,376
1.2.1.5.1 Software Services	1,264	86	1,178	1,521	90	1,431
1.2.1.5.2 Business Services	638	606	32	719	730	–11
1.2.1.5.3 Financial Services	64	102	–38	95	71	24
1.2.1.5.4 Communication Services	27	15	11	49	20	28
1.2.2 Transfers	1,145	105	1,040	1,355	112	1,243
1.2.2.1 Official	6	13	–7	7	17	–10
1.2.2.2 Private	1,138	92	1,046	1,347	95	1,252
1.2.3 Income	314	732	–419	527	957	–430
1.2.3.1 Investment Income	239	695	–456	429	914	–485
1.2.3.2 Compensation of Employees	75	37	38	98	43	56
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**10,960**	**9,502**	**1,458**	**8,831**	**7,850**	**981**
2.1 Foreign Investment (2.1.1+2.1.2)	6,083	5,458	624	5,280	4,890	390
2.1.1 Foreign Direct Investment	988	709	280	1,164	622	542
2.1.1.1 In India	926	538	387	1,119	370	749
2.1.1.1.1 Equity	696	536	160	793	368	425
2.1.1.1.2 Reinvested Earnings	206	0	206	253	0	253
2.1.1.1.3 Other Capital	24	2	22	74	3	71
2.1.1.2 Abroad	63	170	–108	45	252	–207
2.1.1.2.1 Equity	63	77	–14	45	124	–79
2.1.1.2.2 Reinvested Earnings	0	46	–46	0	54	–54
2.1.1.2.3 Other Capital	0	47	–47	0	74	–74
2.1.2 Portfolio Investment	5,094	4,750	344	4,116	4,268	–152
2.1.2.1 In India	5,086	4,735	351	4,089	4,247	–158
2.1.2.1.1 FIIs	5,086	4,735	351	4,089	4,247	–158
2.1.2.1.1.1 Equity	4,108	3,964	144	3,281	3,456	–174
2.1.2.1.1.2 Debt	978	770	208	807	791	17
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	8	15	–7	27	21	6
2.2 Loans (2.2.1+2.2.2+2.2.3)	**2,470**	**2,087**	**383**	**1,467**	**1,259**	**208**
2.2.1 External Assistance	126	78	48	213	92	121
2.2.1.1 By India	1	2	–1	1	2	–1
2.2.1.2 To India	125	76	49	213	90	122
2.2.2 Commercial Borrowings	697	672	25	745	604	141
2.2.2.1 By India	178	170	9	241	241	–1
2.2.2.2 To India	518	502	16	504	362	142
2.2.3 Short Term to India	1,647	1,338	310	509	563	–54
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	1,583	1,338	245	319	563	–243
2.2.3.2 Suppliers' Credit up to 180 days	64	0	64	190	0	190
2.3 Banking Capital (2.3.1+2.3.2)	**1,641**	**1,345**	**296**	**1,527**	**1,173**	**354**
2.3.1 Commercial Banks	1,625	1,345	280	1,527	1,160	367
2.3.1.1 Assets	534	564	–31	430	127	303
2.3.1.2 Liabilities	1,091	780	311	1,098	1,033	65
2.3.1.2.1 Non-Resident Deposits	938	738	200	958	948	10
2.3.2 Others	16	0	16	0	13	–13
2.4 Rupee Debt Service	0	0	0	0	0	0
2.5 Other Capital	767	612	155	556	528	28
3 Errors & Omissions	**40**	0	**40**	0	**71**	**–71**
4 Monetary Movements (4.1+ 4.2)	0	**611**	**–611**	**310**	0	**310**
4.1 I.M.F.	–	–	–	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	611	–611	310	0	310

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

(US $ Million)

Item	Oct-Dec 2017 (PR)			Oct-Dec 2018 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**150,247**	**163,950**	**–13,704**	**164,430**	**181,330**	**–16,900**
1.A Goods and Services (1.A.a+1.A.b)	**127,720**	**151,030**	**–23,310**	**138,332**	**166,524**	**–28,193**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**77,541**	**121,564**	**–44,022**	**83,082**	**132,573**	**–49,491**
1.A.a.1 General merchandise on a BOP basis	77,848	111,951	–34,103	82,438	125,486	–43,048
1.A.a.2 Net exports of goods under merchanting	–307	0	–307	643	–	643
1.A.a.3 Nonmonetary gold	–	9,612	–9,612	–	7,087	–7,087
1.A.b Services (1.A.b.1 to 1.A.b.13)	**50,179**	**29,467**	**20,712**	**55,250**	**33,951**	**21,299**
1.A.b.1 Manufacturing services on physical inputs owned by others	34	13	21	99	13	87
1.A.b.2 Maintenance and repair services n.i.e.	43	129	–87	64	376	–313
1.A.b.3 Transport	4,388	4,419	–31	4,807	5,231	–424
1.A.b.4 Travel	7,441	4,606	2,836	7,372	4,863	2,510
1.A.b.5 Construction	529	327	201	865	618	247
1.A.b.6 Insurance and pension services	611	435	176	689	419	271
1.A.b.7 Financial services	983	1,574	–591	1,324	992	332
1.A.b.8 Charges for the use of intellectual property n.i.e.	215	1,929	–1,714	182	2,173	–1,990
1.A.b.9 Telecommunications, computer, and information services	20,071	1,662	18,409	21,862	1,629	20,233
1.A.b.10 Other business services	9,859	9,360	499	9,978	10,131	–152
1.A.b.11 Personal, cultural, and recreational services	366	501	–135	459	583	–124
1.A.b.12 Government goods and services n.i.e.	203	193	11	144	289	–145
1.A.b.13 Others n.i.e.	5,437	4,320	1,117	7,403	6,635	768
1.B Primary Income (1.B.1 to 1.B.3)	**4,848**	**11,316**	**–6,468**	**7,310**	**13,274**	**–5,964**
1.B.1 Compensation of employees	1,155	572	584	1,363	591	772
1.B.2 Investment income	3,068	10,626	–7,558	5,089	12,516	–7,427
1.B.2.1 Direct investment	1,508	4,743	–3,235	1,663	6,548	–4,885
1.B.2.2 Portfolio investment	19	2,618	–2,599	35	2,311	–2,277
1.B.2.3 Other investment	332	3,257	–2,925	204	3,642	–3,438
1.B.2.4 Reserve assets	1,209	8	1,201	3,187	14	3,174
1.B.3 Other primary income	625	119	506	857	167	690
1.C Secondary Income (1.C.1+1.C.2)	**17,678**	**1,604**	**16,074**	**18,789**	**1,532**	**17,257**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	17,589	1,422	16,167	18,693	1,316	17,377
1.C.1.1 Personal transfers (Current transfers between resident and/	17,011	1,083	15,928	18,019	987	17,032
1.C.1.2 Other current transfers	578	339	239	674	329	345
1.C.2 General government	89	182	–93	96	216	–120
2 Capital Account (2.1+2.2)	**131**	**97**	**33**	**71**	**147**	**–76**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	47	19	28	5	42	–36
2.2 Capital transfers	84	78	5	66	106	–40
3 Financial Account (3.1 to 3.5)	**169,205**	**156,155**	**13,050**	**126,760**	**108,795**	**17,965**
3.1 Direct Investment (3.1A+3.1B)	**15,270**	**10,947**	**4,323**	**16,155**	**8,633**	**7,523**
3.1.A Direct Investment in India	14,301	8,315	5,985	15,530	5,139	10,391
3.1.A.1 Equity and investment fund shares	13,937	8,287	5,650	14,509	5,101	9,408
3.1.A.1.1 Equity other than reinvestment of earnings	10,755	8,287	2,468	11,005	5,101	5,904
3.1.A.1.2 Reinvestment of earnings	3,182	–	3,182	3,504	–	3,504
3.1.A.2 Debt instruments	364	29	335	1,022	38	984
3.1.A.2.1 Direct investor in direct investment enterprises	364	29	335	1,022	38	984
3.1.B Direct Investment by India	969	2,631	–1,662	625	3,494	–2,869
3.1.B.1 Equity and investment fund shares	969	1,903	–934	625	2,472	–1,847
3.1.B.1.1 Equity other than reinvestment of earnings	969	1,190	–221	625	1,719	–1,094
3.1.B.1.2 Reinvestment of earnings	–	713	–713	–	753	–753
3.1.B.2 Debt instruments	0	728	–728	0	1,021	–1,021
3.1.B.2.1 Direct investor in direct investment enterprises	–	728	–728	–	1,021	–1,021
3.2 Portfolio Investment	**78,703**	**73,382**	**5,322**	**57,107**	**59,218**	**–2,111**
3.2.A Portfolio Investment in India	78,576	73,145	5,430	56,733	58,921	–2,188
3.2.1 Equity and investment fund shares	63,467	61,246	2,221	45,530	47,949	–2,419
3.2.2 Debt securities	15,109	11,900	3,209	11,203	10,972	231
3.2.B Portfolio Investment by India	127	236	–109	374	297	77
3.3 Financial derivatives (other than reserves) and employee stock options	**5,402**	**5,905**	**–503**	**5,859**	**5,362**	**497**
3.4 Other investment	**69,829**	**56,487**	**13,342**	**43,343**	**35,583**	**7,760**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	14,738	11,398	3,340	13,298	13,343	–46
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	248	0	248	0	185	–185
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	14,489	11,398	3,091	13,298	13,159	139
3.4.2.3 General government	–	–	–	–	–	–
3.4.2.4 Other sectors	–	–	–	–	–	–
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	23,326	20,956	2,370	21,186	12,590	8,596
3.4.3.A Loans to India	20,557	18,301	2,255	17,837	9,214	8,623
3.4.3.B Loans by India	2,769	2,654	114	3,348	3,376	–27
3.4.4 Insurance, pension, and standardized guarantee schemes	21	58	–37	29	207	–179
3.4.5 Trade credit and advances	25,449	20,667	4,782	7,064	7,809	–745
3.4.6 Other accounts receivable/payable - other	6,296	3,407	2,889	1,767	1,633	134
3.4.7 Special drawing rights	–	–	–	0	0	0
3.5 Reserve assets	**0**	**9,434**	**–9,434**	**4,296**	**0**	**4,296**
3.5.1 Monetary gold	–	–	–	–	–	–
3.5.2 Special drawing rights n.a.	–	–	–	–	–	–
3.5.3 Reserve position in the IMF n.a.	–	–	–	–	–	–
3.5.4 Other reserve assets (Foreign Currency Assets)	0	9,434	–9,434	4,296	0	4,296
4 Total assets/liabilities	**169,205**	**156,155**	**13,050**	**126,760**	**108,795**	**17,965**
4.1 Equity and investment fund shares	83,924	77,636	6,288	66,925	61,388	5,537
4.2 Debt instruments	78,985	65,678	13,308	53,772	45,774	7,998
4.3 Other financial assets and liabilities	6,296	12,842	–6,546	6,063	1,633	4,430
5 Net errors and omissions	**621**	–	**621**	–	**989**	**–989**

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

(₹ Billion)

Item	Oct-Dec 2017 (PR)			Oct-Dec 2018 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**9,725**	**10,612**	**–887**	**11,851**	**13,069**	**–1,218**
1.A Goods and Services (1.A.a+1.A.b)	**8,267**	**9,776**	**–1,509**	**9,970**	**12,002**	**–2,032**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**5,019**	**7,869**	**–2,850**	**5,988**	**9,555**	**–3,567**
1.A.a.1 General merchandise on a BOP basis	5,039	7,246	–2,207	5,942	9,044	–3,103
1.A.a.2 Net exports of goods under merchanting	–20	0	–20	46	–	46
1.A.a.3 Nonmonetary gold	0	622	–622	0	511	–511
1.A.b Services (1.A.b.1 to 1.A.b.13)	**3,248**	**1,907**	**1,341**	**3,982**	**2,447**	**1,535**
1.A.b.1 Manufacturing services on physical inputs owned by others	2	1	1	7	1	6
1.A.b.2 Maintenance and repair services n.i.e.	3	8	–6	5	27	–23
1.A.b.3 Transport	284	286	–2	346	377	–31
1.A.b.4 Travel	482	298	184	531	350	181
1.A.b.5 Construction	34	21	13	62	45	18
1.A.b.6 Insurance and pension services	40	28	11	50	30	20
1.A.b.7 Financial services	64	102	–38	95	71	24
1.A.b.8 Charges for the use of intellectual property n.i.e.	14	125	–111	13	157	–143
1.A.b.9 Telecommunications, computer, and information services	1,299	108	1,192	1,576	117	1,458
1.A.b.10 Other business services	638	606	32	719	730	–11
1.A.b.11 Personal, cultural, and recreational services	24	32	–9	33	42	–9
1.A.b.12 Government goods and services n.i.e.	13	12	1	10	21	–10
1.A.b.13 Others n.i.e.	352	280	72	534	478	55
1.B Primary Income (1.B.1 to 1.B.3)	**314**	**732**	**–419**	**527**	**957**	**–430**
1.B.1 Compensation of employees	75	37	38	98	43	56
1.B.2 Investment income	199	688	–489	367	902	–535
1.B.2.1 Direct investment	98	307	–209	120	472	–352
1.B.2.2 Portfolio investment	1	169	–168	2	167	–164
1.B.2.3 Other investment	22	211	–189	15	263	–248
1.B.2.4 Reserve assets	78	1	78	230	1	229
1.B.3 Other primary income	40	8	33	62	12	50
1.C Secondary Income (1.C.1+1.C.2)	**1,144**	**104**	**1,040**	**1,354**	**110**	**1,244**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	1,138	92	1,046	1,347	95	1,252
1.C.1.1 Personal transfers (Current transfers between resident and/	1,101	70	1,031	1,299	71	1,228
1.C.1.2 Other current transfers	37	22	15	49	24	25
1.C.2 General government	6	12	–6	7	16	–9
2 Capital Account (2.1+2.2)	**8**	**6**	**2**	**5**	**11**	**–6**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	3	1	2	0	3	–3
2.2 Capital transfers	5	5	0	5	8	–3
3 Financial Account (3.1 to 3.5)	**10,952**	**10,108**	**845**	**9,136**	**7,841**	**1,295**
3.1 Direct Investment (3.1A+3.1B)	**988**	**709**	**280**	**1,164**	**622**	**542**
3.1.A Direct Investment in India	926	538	387	1,119	370	749
3.1.A.1 Equity and investment fund shares	902	536	366	1,046	368	678
3.1.A.1.1 Equity other than reinvestment of earnings	696	536	160	793	368	425
3.1.A.1.2 Reinvestment of earnings	206	0	206	253	0	253
3.1.A.2 Debt instruments	24	2	22	74	3	71
3.1.A.2.1 Direct investor in direct investment enterprises	24	2	22	74	3	71
3.1.B Direct Investment by India	63	170	–108	45	252	–207
3.1.B.1 Equity and investment fund shares	63	123	–60	45	178	–133
3.1.B.1.1 Equity other than reinvestment of earnings	63	77	–14	45	124	–79
3.1.B.1.2 Reinvestment of earnings	0	46	–46	0	54	–54
3.1.B.2 Debt instruments	0	47	–47	0	74	–74
3.1.B.2.1 Direct investor in direct investment enterprises	0	47	–47	0	74	–74
3.2 Portfolio Investment	**5,094**	**4,750**	**344**	**4,116**	**4,268**	**–152**
3.2.A Portfolio Investment in India	5,086	4,735	351	4,089	4,247	–158
3.2.1 Equity and investment fund shares	4,108	3,964	144	3,281	3,456	–174
3.2.2 Debt securities	978	770	208	807	791	17
3.2.B Portfolio Investment by India	8	15	–7	27	21	6
3.3 Financial derivatives (other than reserves) and employee stock options	**350**	**382**	**–33**	**422**	**386**	**36**
3.4 Other investment	**4,520**	**3,656**	**864**	**3,124**	**2,565**	**559**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	954	738	216	958	962	–3
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	16	0	16	0	13	–13
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	938	738	200	958	948	10
3.4.2.3 General government	–	–	–	–	–	–
3.4.2.4 Other sectors	–	–	–	–	–	–
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	1,510	1,356	153	1,527	907	620
3.4.3.A Loans to India	1,331	1,185	146	1,286	664	621
3.4.3.B Loans by India	179	172	7	241	243	–2
3.4.4 Insurance, pension, and standardized guarantee schemes	1	4	–2	2	15	–13
3.4.5 Trade credit and advances	1,647	1,338	310	509	563	–54
3.4.6 Other accounts receivable/payable - other	408	221	187	127	118	10
3.4.7 Special drawing rights	–	–	–	0	0	0
3.5 Reserve assets	**0**	**611**	**–611**	**310**	**0**	**310**
3.5.1 Monetary gold	–	–	–	–	–	–
3.5.2 Special drawing rights n.a.	–	–	–	–	–	–
3.5.3 Reserve position in the IMF n.a.	–	–	–	–	–	–
3.5.4 Other reserve assets (Foreign Currency Assets)	0	611	–611	310	0	310
4 Total assets/liabilities	**10,952**	**10,108**	**845**	**9,136**	**7,841**	**1,295**
4.1 Equity and investment fund shares	5,432	5,025	407	4,823	4,424	399
4.2 Debt instruments	5,113	4,251	861	3,876	3,299	576
4.3 Other financial assets and liabilities	408	831	–424	437	118	319
5 Net errors and omissions	**40**	**–**	**40**	**–**	**71**	**–71**

No. 42: International Investment Position

(US$ Million)

Item	As on Financial Year /Quarter End							
	2017-18		2017		2018			
			Dec.		Sep.		Dec.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1 Direct Investment Abroad/in India	157,373	378,957	155,176	377,478	163,325	362,162	166,193	386,354
1.1 Equity Capital and Reinvested Earnings	103,734	363,190	102,500	361,451	107,808	346,320	109,655	369,706
1.2 Other Capital	53,640	15,767	52,676	16,026	55,517	15,842	56,538	16,648
2 Portfolio Investment	3,577	272,146	2,939	267,497	2,641	237,865	2,666	245,817
2.1 Equity	2,054	155,106	1,975	155,675	1,804	135,249	1,386	138,091
2.2 Debt	1,524	117,040	964	111,822	837	102,616	1,280	107,727
3 Other Investment	48,235	401,046	46,281	390,267	41,530	395,402	39,394	403,366
3.1 Trade Credit	1,696	103,155	1,572	98,442	904	104,333	252	103,650
3.2 Loan	8,225	159,699	5,577	155,927	7,073	157,447	6,542	160,329
3.3 Currency and Deposits	20,790	126,456	20,769	123,546	16,628	122,137	17,211	125,997
3.4 Other Assets/Liabilities	17,524	11,736	18,363	12,351	16,925	11,486	15,388	13,390
4 Reserves	424,545	–	409,072	–	400,525	–	395,591	–
5 Total Assets/ Liabilities	633,731	1,052,150	613,094	1,035,241	608,022	995,429	603,844	1,035,537
6 IIP (Assets - Liabilities)		–418,419		–421,428		–387,408		–431,693

Payment and Settlement Systems

No. 43: Payment System Indicators

System	Volume (Million)				Value (₹ Billion)			
	2018-19	2019			2018-19	2019		
		Jan.	Feb.	Mar.		Jan.	Feb.	Mar.
	1	2	3	4	5	6	7	8
1 RTGS	**136.63**	**11.78**	**11.09**	**13.64**	**1,715,520.61**	**156,570.32**	**146,468.19**	**190,693.10**
1.1 Customer Transactions	133.30	11.50	10.84	13.35	1,184,368.12	106,991.92	94,576.26	125,551.00
1.2 Interbank Transactions	3.31	0.27	0.25	0.29	172,513.75	17,805.11	18,183.59	23,178.34
1.3 Interbank Clearing	0.027	0.001	0.002	0.003	358,638.74	31,773.29	33,708.34	41,963.75
2 CCIL Operated Systems	**3.62**	**0.31**	**0.27**	**0.28**	**1,165,510.38**	**100,832.13**	**98,962.53**	**103,147.77**
2.1 CBLO	0.130	–	–	–	181,404.63	–	–	–
2.2 Govt. Securities Clearing	1.11	0.11	0.10	0.09	509,315.87	62,249.17	59,795.85	53,731.05
2.2.1 Outright	0.81	0.08	0.06	0.06	93,550.07	8,773.42	7,912.97	7,361.13
2.2.2 Repo	0.216	0.018	0.017	0.017	271,249.89	21,206.86	21,154.91	18,540.59
2.2.3 Tri-party Repo	0.09	0.02	0.02	0.02	144,515.90	32,268.89	30,727.96	27,829.33
2.3 Forex Clearing	2.38	0.20	0.17	0.19	474,789.88	38,582.95	39,166.68	49,416.73
3 Paper Clearing	**1,123.76**	**94.43**	**86.99**	**99.76**	**82,460.65**	**6,867.63**	**6,414.49**	**7,658.15**
3.1 Cheque Truncation System (CTS)	1,111.67	93.60	86.27	99.16	81,535.92	6,804.43	6,369.68	7,610.47
3.2 MICR Clearing	–	–	–	–	–	–	–	–
3.2.1 RBI Centres	–	–	–	–	–	–	–	–
3.2.2 Other Centres	–	–	–	–	–	–	–	–
3.3 Non-MICR Clearing	12.09	0.83	0.72	0.60	924.73	63.20	44.81	47.68
4 Retail Electronic Clearing	**7,113.25**	**621.96**	**633.61**	**727.32**	**258,745.44**	**22,415.03**	**22,026.20**	**28,878.55**
4.1 ECS DR	0.93	0.03	0.03	0.02	12.60	0.12	0.15	0.09
4.2 ECS CR (includes NECS)	5.36	0.40	0.37	0.25	132.35	9.07	14.40	10.48
4.3 EFT/NEFT	2,318.89	205.13	201.10	242.39	227,936.08	19,662.62	19,214.30	25,470.01
4.4 Immediate Payment Service (IMPS)	1,752.91	171.51	166.37	190.18	15,902.57	1,522.97	1,493.43	1,762.89
4.5 National Automated Clearing House (NACH)	3,035.17	244.89	265.73	294.47	14,761.84	1,220.26	1,303.92	1,635.08
5 Cards	**16,046.26**	**1,414.44**	**1,306.53**	**1,462.26**	**45,121.45**	**3,720.32**	**3,537.98**	**4,000.60**
5.1 Credit Cards	1,772.36	160.43	142.13	163.27	6,078.81	553.39	488.59	580.49
5.1.1 Usage at ATMs	9.77	0.86	0.79	0.86	45.33	3.94	3.70	3.98
5.1.2 Usage at POS	1,762.59	159.57	141.34	162.41	6,033.48	549.45	484.89	576.51
5.2 Debit Cards	14,273.90	1,254.01	1,164.40	1,298.99	39,042.64	3,166.92	3,049.40	3,420.10
5.2.1 Usage at ATMs	9,859.61	880.48	817.92	891.42	33,107.89	2,661.24	2,594.31	2,889.99
5.2.2 Usage at POS	4,414.28	373.53	346.48	407.57	5,934.75	505.68	455.09	530.11
6 Prepaid Payment Instruments (PPIs)	**4,604.34**	**443.58**	**384.85**	**427.24**	**2,128.76**	**187.03**	**164.97**	**185.99**
6.1 m-Wallet	4,139.28	395.83	345.03	384.89	1,836.55	158.58	142.79	159.90
6.2 PPI Cards	465.00	47.75	39.82	42.35	291.34	28.45	22.18	26.09
6.3 Paper Vouchers	0.05	0.00	0.00	0.00	0.87	–	–	–
7 Mobile Banking	**6,194.80**	**710.90**	**739.41**	**867.41**	**29,577.05**	**2,959.74**	**3,047.25**	**4,394.51**
8 Cards Outstanding	**971.72**	**976.43**	**990.61**	**971.72**	**–**	**–**	**–**	**–**
8.1 Credit Card	47.09	45.17	46.06	47.09	–	–	–	–
8.2 Debit Card	924.63	931.26	944.55	924.63	–	–	–	–
9 Number of ATMs (in actuals)	**221703**	**221848**	**221786**	**221703**	**–**	**–**	**–**	**–**
10 Number of POS (in actuals)	**3722229**	**3657596**	**3636851**	**3722229**	**–**	**–**	**–**	**–**
11 Grand Total (1.1+1.2+2+3+4+5+6)	**29,027.83**	**2,586.50**	**2,423.34**	**2,730.50**	**2,910,848.56**	**258,819.17**	**243,866.03**	**292,600.42**

Note : Data for latest 12 month period is provisional.
Mobile Banking - 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.
2.1: With effect from November 05, 2018, CCIL has discontinued CBLO.
2.2.3: Tri-party Repo under the Securities segment has been operationalised from November 05, 2018.

Occasional Series

No. 44: Small Savings

(₹ Billion)

Scheme		2017-18	2017	2018		
			Aug.	Jun.	Jul.	Aug.
		1	2	3	4	5
1 Small Savings	**Receipts**	**728.98**	**60.31**	**80.18**	**88.92**	**80.33**
	Outstanding	**8,039.71**	**7,559.02**	**8,276.45**	**8,366.80**	**8,447.96**
1.1 Total Deposits	**Receipts**	**583.32**	**47.19**	**71.19**	**77.75**	**70.63**
	Outstanding	**5,273.10**	**4,892.47**	**5,482.77**	**5,560.52**	**5,631.15**
1.1.1 Post Office Saving Bank Deposits	Receipts	171.45	9.96	23.55	24.35	20.21
	Outstanding	1,092.10	968.84	1,162.02	1,186.37	1,206.58
1.1.2 MGNREG	Receipts	0.00	0.00	0.00	0.00	0.00
	Outstanding	0.00	0.00	0.00	0.00	0.00
1.1.3 National Saving Scheme, 1987	Receipts	–1.62	–0.21	–0.59	–0.29	–0.36
	Outstanding	31.38	31.57	30.08	29.79	29.43
1.1.4 National Saving Scheme, 1992	Receipts	0.05	1.07	–0.05	0.60	–0.06
	Outstanding	–0.43	0.40	–0.60	0.00	–0.06
1.1.5 Monthly Income Scheme	Receipts	16.25	0.35	7.73	9.92	10.08
	Outstanding	1,816.91	1,794.83	1,840.89	1,850.81	1,860.89
1.1.6 Senior Citizen Scheme 2004	Receipts	122.64	11.79	10.51	12.08	11.20
	Outstanding	417.18	348.45	450.86	462.94	474.14
1.1.7 Post Office Time Deposits	Receipts	196.33	15.88	17.39	19.80	19.83
	Outstanding	992.92	868.84	1,046.58	1,066.38	1,086.21
1.1.7.1 1 year Time Deposits	Outstanding	598.18	547.75	622.45	631.29	640.25
1.1.7.2 2 year Time Deposits	Outstanding	45.97	41.25	48.68	49.91	51.06
1.1.7.3 3 year Time Deposits	Outstanding	61.40	54.70	64.06	64.97	65.91
1.1.7.4 5 year Time Deposits	Outstanding	287.37	225.14	311.39	320.21	328.99
1.1.8 Post Office Recurring Deposits	Receipts	78.68	8.35	12.65	11.29	9.73
	Outstanding	923.20	879.24	953.10	964.39	974.12
1.1.9 Post Office Cumulative Time Deposits	Receipts	–0.45	0.00	0.00	0.00	0.00
	Outstanding	–0.37	0.08	–0.37	–0.37	–0.37
1.1.10 Other Deposits	Receipts	–0.01	0.00	0.00	0.00	0.00
	Outstanding	0.21	0.22	0.21	0.21	0.21
1.2 Saving Certificates	**Receipts**	**79.43**	**10.60**	**7.78**	**9.03**	**7.89**
	Outstanding	**2,066.76**	**2,023.36**	**2,092.57**	**2,103.03**	**2,111.75**
1.2.1 National Savings Certificates VIII issue	Receipts	–0.65	–2.83	3.62	4.08	5.42
	Outstanding	871.74	848.71	880.87	884.95	890.37
1.2.2 Indira Vikas Patras	Receipts	–9.56	–0.01	0.95	1.19	0.01
	Outstanding	–0.71	8.81	1.41	2.60	2.61
1.2.3 Kisan Vikas Patras	Receipts	–155.92	–11.99	–12.99	–14.41	–15.65
	Outstanding	379.81	477.38	342.38	327.97	312.32
1.2.4 Kisan Vikas Patras - 2014	Receipts	245.88	25.49	16.11	18.08	18.01
	Outstanding	706.12	577.17	758.14	776.22	794.23
1.2.5 National Saving Certificates VI issue	Receipts	–0.29	–0.05	0.09	0.09	0.10
	Outstanding	–1.40	–1.26	–1.34	–1.25	–1.15
1.2.6 National Saving Certificates VII issue	Receipts	–0.03	–0.01	0.00	0.00	0.00
	Outstanding	–0.64	–0.63	–0.80	–0.80	–0.80
1.2.7 Other Certificates	Outstanding	111.84	113.18	111.91	113.34	114.17
1.3 Public Provident Fund	**Receipts**	**66.23**	**2.52**	**1.21**	**2.14**	**1.81**
	Outstanding	**699.85**	**643.19**	**701.11**	**703.25**	**705.06**

Note: The data on receipts from April 2017 are net receipts, i.e., gross receipts minus gross payments.
Source: Accountant General, Post and Telegraphs.

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

(Per cent)

Central Government Dated Securities					
Category	2017	2018			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(A) Total (in ₹. Billion)	**52813.50**	**53967.78**	**54556.81**	**56028.30**	**57581.03**
1 Commercial Banks	41.40	42.68	41.84	41.41	40.51
2 Non-Bank PDs	0.33	0.29	0.33	0.37	0.33
3 Insurance Companies	23.63	23.49	24.24	24.61	24.57
4 Mutual Funds	1.33	1.00	1.13	1.41	0.64
5 Co-operative Banks	2.69	2.57	2.59	2.51	2.38
6 Financial Institutions	0.82	0.90	0.93	0.97	1.01
7 Corporates	1.09	0.91	1.09	1.01	1.05
8 Foreign Portfolio Investors	4.53	4.35	3.84	3.65	3.60
9 Provident Funds	5.32	5.88	5.79	5.71	5.54
10 RBI	11.94	11.62	11.63	11.76	13.81
11. Others	6.92	6.30	6.58	6.58	6.55
11.1 State Governments	1.91	1.91	1.97	1.99	1.97

State Governments Securities					
Category	2017	2018			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(B) Total (in ₹. Billion)	**23329.53**	**24288.29**	**24954.61**	**25668.33**	**26693.93**
1 Commercial Banks	38.13	35.79	35.02	34.66	34.00
2 Non-Bank PDs	0.51	0.51	0.75	0.58	0.60
3 Insurance Companies	33.35	34.13	34.24	33.74	33.90
4 Mutual Funds	1.68	1.64	1.20	1.05	1.23
5 Co-operative Banks	4.78	4.78	4.79	4.75	4.67
6 Financial Institutions	0.22	0.35	0.35	0.43	0.37
7 Corporates	0.13	0.15	0.16	0.17	0.22
8 Foreign Portfolio Investors	0.21	0.23	0.15	0.10	0.09
9 Provident Funds	17.05	19.67	20.34	21.04	21.29
10 RBI	0.00	0.00	0.00	0.00	0.00
11. Others	3.94	2.76	2.99	3.48	3.64
11.1 State Governments	0.01	0.05	0.06	0.07	0.07

Treasury Bills					
Category	2017	2018			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(C) Total (in ₹. Billion)	**5102.82**	**3798.76**	**5280.07**	**5657.50**	**5298.26**
1 Commercial Banks	48.40	60.74	55.30	47.84	53.76
2 Non-Bank PDs	1.67	2.17	1.41	1.86	2.06
3 Insurance Companies	5.22	4.17	3.66	4.55	4.74
4 Mutual Funds	10.40	2.27	7.03	10.69	5.65
5 Co-operative Banks	2.05	2.42	1.29	1.20	1.21
6 Financial Institutions	3.97	3.55	2.36	1.67	1.88
7 Corporates	2.12	2.45	1.88	6.67	1.86
8 Foreign Portfolio Investors	0.00	0.00	0.00	0.00	0.09
9 Provident Funds	0.02	0.11	0.21	0.01	0.02
10 RBI	0.00	0.00	0.00	0.00	0.00
11. Others	26.17	22.12	26.87	25.50	28.72
11.1 State Governments	21.81	16.35	23.11	21.36	24.04

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

(₹ Billion)

Item	2013-14	2014-15	2015-16	2016-17	2017-18 RE	2018-19 BE
	1	2	3	4	5	6
1 Total Disbursements	**30,002.99**	**32,852.10**	**37,606.11**	**42,659.69**	**48,579.90**	**53,611.81**
1.1 Developmental	17,142.21	18,720.62	22,012.87	25,379.05	29,324.08	32,025.64
1.1.1 Revenue	13,944.26	14,830.18	16,682.50	18,784.17	22,525.73	24,390.87
1.1.2 Capital	2,785.08	3,322.62	4,120.69	5,012.13	5,857.77	6,745.79
1.1.3 Loans	412.88	567.82	1,209.68	1,582.75	940.58	888.98
1.2 Non-Developmental	12,427.83	13,667.69	15,108.10	16,726.46	18,542.53	20,762.79
1.2.1 Revenue	11,413.65	12,695.20	13,797.27	15,552.39	17,684.36	19,839.32
1.2.1.1 Interest Payments	5,342.30	5,845.42	6,480.91	7,244.48	8,166.36	8,851.50
1.2.2 Capital	990.37	946.87	1,273.06	1,157.75	844.41	909.08
1.2.3 Loans	23.81	25.63	37.77	16.32	13.76	14.40
1.3 Others	432.95	463.79	485.14	554.17	713.29	823.38
2 Total Receipts	**30,013.72**	**31,897.37**	**37,780.49**	**42,884.32**	**47,718.59**	**52,780.35**
2.1 Revenue Receipts	22,114.75	23,876.93	27,483.74	31,322.01	35,923.82	41,185.41
2.1.1 Tax Receipts	18,465.45	20,207.28	22,971.01	26,221.45	30,132.23	34,941.02
2.1.1.1 Taxes on commodities and services	11,257.81	12,123.48	14,409.52	16,523.77	18,296.56	22,138.76
2.1.1.2 Taxes on Income and Property	7,176.34	8,051.76	8,522.71	9,656.22	11,802.47	12,775.14
2.1.1.3 Taxes of Union Territories (Without Legislature)	31.30	32.04	38.78	41.46	33.20	27.12
2.1.2 Non-Tax Receipts	3,649.30	3,669.65	4,512.72	5,100.56	5,791.59	6,244.38
2.1.2.1 Interest Receipts	401.62	396.22	357.79	332.20	316.10	368.35
2.2 Non-debt Capital Receipts	391.13	609.55	598.27	690.63	1,651.83	1,428.43
2.2.1 Recovery of Loans & Advances	93.85	220.72	165.61	209.42	648.80	616.50
2.2.2 Disinvestment proceeds	297.28	388.83	432.66	481.22	1,003.03	811.93
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	**7,497.11**	**8,365.63**	**9,524.10**	**10,647.04**	**11,004.25**	**10,997.97**
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	7,424.19	8,236.30	9,396.62	10,467.08	10,980.08	11,023.86
3A.1.1 Net Bank Credit to Government	3,358.58	–374.76	2,310.90	6,171.23	1,447.92	..
3A.1.1.1 Net RBI Credit to Government	1,081.30	–3,341.85	604.72	1,958.16	–1,448.47	..
3A.1.2 Non-Bank Credit to Government	4,065.61	8,611.06	7,085.72	4,295.85	9,532.16	..
3A.2 External Financing	72.92	129.33	127.48	179.97	24.18	–25.89
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	7,424.19	8,236.30	9,396.62	10,467.08	10,980.08	11,023.86
3B.1.1 Market Borrowings (net)	6,391.99	6,640.58	6,732.98	6,898.21	7,951.99	8,398.36
3B.1.2 Small Savings (net)	–142.81	–565.80	–785.15	–1,050.38	–1,653.29	–1,434.61
3B.1.3 State Provident Funds (net)	312.90	343.39	352.61	456.88	406.13	474.19
3B.1.4 Reserve Funds	34.63	51.09	–33.22	–64.36	6.70	31.14
3B.1.5 Deposits and Advances	255.45	275.45	134.70	177.92	168.45	159.10
3B.1.6 Cash Balances	–10.72	954.74	–174.38	–224.63	861.31	831.46
3B.1.7 Others	582.75	536.84	3,169.08	4,273.43	3,238.79	2,564.21
3B.2 External Financing	72.92	129.33	127.48	179.97	24.18	–25.89
4 Total Disbursements as per cent of GDP	*26.7*	*26.3*	*27.3*	*27.8*	*28.4*	*28.1*
5 Total Receipts as per cent of GDP	*26.7*	*25.6*	*27.4*	*27.9*	*27.9*	*27.7*
6 Revenue Receipts as per cent of GDP	*19.7*	*19.2*	*20.0*	*20.4*	*21.0*	*21.6*
7 Tax Receipts as per cent of GDP	*16.4*	*16.2*	*16.7*	*17.1*	*17.6*	*18.3*
8 Gross Fiscal Deficit as per cent of GDP	*6.7*	*6.7*	*6.9*	*6.9*	*6.4*	*5.8*

Source : Budget Documents of Central and State Governments.

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

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

(₹ Billion)

Sr. No	State/Union Territory	During March-2019					
		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	11.90	5	9.71	19	5.43	28
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	-	-	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	-	-	-	-	-	-
6	Goa	-	-	0.83	17	0.41	18
7	Gujarat	-	-	-	-	-	-
8	Haryana	-	-	-	-	-	-
9	Himachal Pradesh	-	-	-	-	-	-
10	Jammu & Kashmir	1.35	1	4.51	17	-	-
11	Jharkhand	2.52	5	4.53	18	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	-	-	4.40	11	0.73	11
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	-	-	-	-	-	-
16	Manipur	1.61	3	1.28	15	-	-
17	Meghalaya	-	-	-	-	-	-
18	Mizoram	-	-	-	-	-	-
19	Nagaland	-	-	0.66	4	0.32	7
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	3.11	5	5.52	12	0.07	13
23	Rajasthan	-	-	-	-	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	2.17	5	7.40	12	3.72	18
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	0.90	1	2.40	12	0.00	1
29	West Bengal	-	-	9.60	1	3.20	2

Source: Reserve Bank of India.

No. 48: Investments by State Governments

(₹ Billion)

Sr. No	State/Union Territory	As on end of March 2019			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	74.59	7.35	0.02	0
2	Arunachal Pradesh	10.27	0.01	--	0
3	Assam	37.32	0.47	--	0
4	Bihar	63.71	--	--	0
5	Chhattisgarh	37.43	--	0.01	0
6	Goa	5.39	2.70	--	0
7	Gujarat	123.46	4.28	--	0
8	Haryana	18.79	10.74	--	0
9	Himachal Pradesh	--	--	--	0
10	Jammu & Kashmir	--	--	--	0
11	Jharkhand	--	--	--	0
12	Karnataka	34.66	--	--	0
13	Kerala	19.42	--	--	0
14	Madhya Pradesh	--	8.32	--	0
15	Maharashtra	333.88	2.67	--	260.00
16	Manipur	3.39	0.90	--	0
17	Meghalaya	5.51	0.27	0.09	0
18	Mizoram	4.97	0.29	--	0
19	Nagaland	13.36	0.29	--	0
20	Odisha	120.53	13.01	0.76	151.00
21	Puducherry	2.89	--	--	8.88
22	Punjab	--	--	0.08	0
23	Rajasthan	--	--	1.29	37.92
24	Tamil Nadu	59.73	--	0.45	273.47
25	Telangana	48.31	8.28	0.01	0
26	Tripura	2.95	0.04	--	8.00
27	Uttar Pradesh	--	--	1.80	0
28	Uttarakhand	27.09	0.71	--	0
29	West Bengal	99.38	4.79	2.14	0
	Total	**1147.01**	**65.14**	**6.64**	**739.27**

No. 49: Market Borrowings of State Governments

(₹ Billion)

Sr. No.	State	2016-17		2017-18		2018-19							
						January		February		March		Total amount raised, so far in 2018-19	
		Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross	Net
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Andhra Pradesh	195.00	177.06	228.00	189.22	30.40	15.04	25.00	17.93	-	-12.19	302.00	238.24
2	Arunachal Pradesh	4.53	2.87	8.88	7.03	-	-	-	-	3.19	2.93	7.19	6.93
3	Assam	30.90	19.94	77.60	67.97	15.00	15.00	10.00	10.00	21.95	-3.11	105.95	80.89
4	Bihar	177.00	168.15	100.00	89.08	80.00	72.69	20.00	20.00	43.00	23.84	143.00	109.03
5	Chhattisgarh	42.00	38.98	81.00	81.00	35.00	35.00	30.00	30.00	39.00	39.00	129.00	129.00
6	Goa	13.20	11.71	18.00	14.00	1.00	1.00	3.00	1.00	4.50	3.50	23.50	18.50
7	Gujarat	247.20	209.44	240.00	157.85	39.00	7.75	52.00	37.01	82.00	65.60	369.71	274.57
8	Haryana	158.00	153.59	166.40	158.40	15.00	15.00	45.00	32.05	42.40	27.40	212.65	179.70
9	Himachal Pradesh	34.00	21.63	46.00	25.51	5.00	-	8.00	6.00	4.10	-2.90	42.10	21.08
10	Jammu & Kashmir	27.90	18.99	62.00	39.74	8.00	8.00	13.84	13.84	3.00	-4.81	66.84	49.27
11	Jharkhand	51.54	47.25	60.00	48.07	-	-2.48	25.00	21.00	10.09	3.67	55.09	40.23
12	Karnataka	280.07	240.26	220.98	173.48	70.00	55.00	45.00	45.00	70.00	10.83	396.00	313.83
13	Kerala	173.00	146.86	205.00	162.03	-	-8.12	27.00	19.00	5.00	-2.69	195.00	147.84
14	Madhya Pradesh	161.00	145.51	150.00	131.25	10.00	-7.85	40.00	40.00	32.00	0.85	204.96	149.71
15	Maharashtra	400.00	364.72	450.00	364.80	50.00	17.05	30.00	-	-	-94.57	208.69	31.17
16	Manipur	6.30	4.78	5.25	2.78	-	-1.03	2.00	2.00	2.70	2.70	9.70	6.67
17	Meghalaya	10.01	7.18	11.16	9.20	-	-	1.00	1.00	3.72	2.33	11.22	8.63
18	Mizoram	1.70	-0.35	4.24	2.77	-	-	-	-	-	-0.97	-	-1.23
19	Nagaland	10.70	7.33	11.35	7.66	-	-	1.50	0.50	1.72	-0.35	8.22	3.55
20	Odisha	76.20	69.90	84.38	84.38	-	-	10.00	-	-	-	55.00	45.00
21	Puducherry	5.25	5.25	8.25	4.88	1.50	1.50	1.50	1.50	1.75	-0.75	8.25	4.75
22	Punjab	136.00	121.44	174.70	133.49	18.08	11.41	15.00	11.46	27.26	18.88	221.15	170.53
23	Rajasthan	160.54	143.25	249.14	167.77	20.00	20.00	22.56	10.82	23.22	-40.21	331.78	201.86
24	Sikkim	7.44	5.74	9.95	7.45	0.92	0.92	-	-	2.71	2.71	10.88	7.95
25	Tamil Nadu	372.50	349.94	409.65	360.23	46.41	26.41	60.00	38.00	25.95	-3.03	431.25	322.78
26	Telangana	218.61	205.79	246.00	218.28	20.00	9.03	27.50	22.45	20.22	11.51	267.40	221.83
27	Tripura	9.90	7.53	11.37	11.37	2.00	2.00	2.00	2.00	-	-1.56	15.43	13.87
28	Uttar Pradesh	410.50	369.05	416.00	371.78	80.00	69.01	90.00	90.00	60.00	4.06	460.00	333.07
29	Uttarakhand	54.50	50.81	66.60	58.30	4.00	4.00	-	-2.52	5.50	4.56	63.00	52.89
30	West Bengal	344.31	312.30	369.11	253.04	60.00	60.00	70.45	60.45	88.00	66.43	428.28	304.31
	Grand Total	**3819.79**	**3426.92**	**4191.00**	**3402.81**	**611.31**	**426.33**	**677.35**	**530.50**	**622.98**	**123.66**	**4783.23**	**3486.43**

- : Nil.

Source : Reserve Bank of India.

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

NM_2 and NM_3 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.

L_1 and L_2 are compiled monthly and L_3 quarterly.

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

Table No. 13

Data in column Nos. (4) & (5) are Provisional.

Table No. 14

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

Table No. 15 & 16

Data are provisional and relate to select 41 scheduled commercial banks, accounting for about 90 per cent of total non-food credit extended by all scheduled commercial banks (excludes ING Vysya which has been merged with Kotak Mahindra since April 2015).

Export credit under priority sector relates to foreign banks only.

Micro & small under item 2.1 includes credit to micro & small industries in manufacturing sector.

Micro & small enterprises under item 5.2 includes credit to micro & small enterprises in manufacturing as well as services sector.

Priority Sector is as per old definition and does not conform to FIDD Circular FIDD.CO.Plan.BC.54/04.09.01/2014-15 dated April 23, 2015.

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 & 1.1.1.1.1.4: 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 2016-17 is a moving one, which gets updated every year. REER figures are based on Consumer Price Index (combined). Methodological details are available in December 2005 and April 2014 issues of the 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

1.3: Pertain to multiateral net settlement batches.
3.1: Pertain to three centres – Mumbai, New Delhi and Chennai.
3.3: Pertain to clearing houses managed by 21 banks.
6: Available from December 2010.
7: Include IMPS transactions.
9: Includes ATMs deployed by Scheduled Commercial banks and White Label ATMs (WLA). WLA are included from April 2014 onwards.
Mobile Banking - 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.

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 from 2011-12 onwards are based on 2011-12 base. Data from year 2015-16 pertains to 29 states.
The GDP data from 2015-16 pertains to the Second Advance Estimates of National Income released by Central Statistics Office on 28th February 2018.
GDP for 2016-17 (RE) and 2017-18 are from Union Budget 2017-18.
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: Includes borrowings through dated securities and 364-day Treasury Bills.
3B.1.2: Represent net investment in Central and State Governments' special securities by the National Small Savings Fund (NSSF).
3B.1.6: Include Ways and Means Advances by the Centre to the State Governments.
3B.1.7: Include Treasury Bills (excluding 364-day 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 temporry 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

1. Many of the above publications are available at the RBI website (www.rbi.org.in).
2. Time Series data are available at the Database on Indian Economy (http://dbie.rbi.org.in).
3. 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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