

RESERVE BANK OF INDIA
BULLETIN



NOVEMBER 2018

VOLUME LXXII NUMBER 11

EDITORIAL COMMITTEE

Rajiv Ranjan

D. P. Rath

Sitikantha Pattanaik

G. P. Samanta

S. Gangadaran

Pallavi Chavan

Snehal Herwadkar

EDITOR

Shashidhar M. Lokare

The Reserve Bank of India Bulletin is issued monthly by the Department of Economic and Policy Research, Reserve Bank of India, under the direction of the Editorial Committee.

The Central Board of the Bank is not responsible for interpretation and opinions expressed. In the case of signed articles, the responsibility is that of the author.

© Reserve Bank of India 2018

All rights reserved.

Reproduction is permitted provided an acknowledgment of the source is made.

For subscription to Bulletin, please refer to Section 'Recent Publications'

The Reserve Bank of India Bulletin can be accessed at <http://www.bulletin.rbi.org.in>

CONTENTS

Speeches

Prompt Corrective Action: An Essential Element of
Financial Stability Framework

Viral V. Acharya 1

On the Importance of Independent Regulatory Institutions –
The Case of the Central Bank

Viral V. Acharya 21

Some Thoughts on Credit Risk and Bank Capital Regulation

N. S. Viswanathan 33

Articles

Globalising People: India's Inward Remittances 45

Regional Inflation Dynamics in India 57

Current Statistics 67

Recent Publications 111

SPEECHES

Prompt Corrective Action: An Essential Element of
Financial Stability Framework

Viral V. Acharya

On the Importance of Independent Regulatory Institutions –
The Case of the Central Bank

Viral V. Acharya

Some Thoughts on Credit Risk and Bank Capital Regulation

N. S. Viswanathan

*Prompt Corrective Action: An Essential Element of Financial Stability Framework**

Viral V. Acharya

Abstract

This talk explains why the Prompt Corrective Action (PCA) framework of the Reserve Bank of India (RBI) is an essential element of its financial stability framework. It lays out the case for structured early intervention and resolution by regulators for banks that become under-capitalised due to poor asset quality or vulnerable due to loss of profitability. Detailing the mandatory and discretionary actions under the RBI's Revised PCA framework, it compares and contrasts these with the PCA framework operating in the United States. Finally, it documents empirically how Indian banks under the PCA framework are being restored back to health through better capitalisation, preservation of capital, and provisioning for losses.

I would like to thank the Indian Institute of Technology (IIT), Bombay, and in particular, Professor Pushpa Trivedi, who inspired me to pursue Economics and Finance, for inviting me back to IIT, my undergraduate *alma mater*. It is always an occasion of great pride and immense satisfaction for me to return to the Powai campus and be reminded of what I learnt here – the importance of identifying big problems to solve, approaching them with an analytical mindset, scything through seemingly attractive but incomplete

* Dr. Viral V. Acharya, Deputy Governor, Reserve Bank of India. Speech delivered at the Indian Institute of Technology, Bombay on October 12, 2018.

I am grateful to Governor Dr. Urjit R. Patel and Deputy Governor N. S. Vishwanathan for their constant encouragement, feedback and guidance. I also thank Vaibhav Chaturvedi for his excellent support throughout the preparation of this speech; R Gurumurthy, Jagan Mohan, B Nethaji, Sooraj Menon and Vineet Srivastava of the Reserve Bank of India; and, my co-authors, Sascha Steffen of Frankfurt School of Management and Finance and Lea Steinruecke of University of Mannheim.

fixes, and in the process, discovering durable solutions that address the root causes underlying the problems.

About thirteen months back on the 7th of September, 2017, I spoke at the 8th R K Talwar Memorial Lecture about *'The Unfinished Agenda: Restoring Public Sector Bank Health in India,'* wherein, I touched upon three themes:

- i. How under-capitalised banking systems engage in ever-greening of the distressed borrowers ('zombie lending'), as witnessed in the United States during the Savings and Loan (S&L) crisis of 1980's, Japan in the 1990's, and the Eurozone following the global financial crisis;
- ii. What steps the Reserve Bank of India had undertaken to address the stressed assets problem of Indian banks, *viz.*, the creation of the Central Repository of Information on Large Credits (CRILC) in early 2014; the Asset Quality Review in 2015; and reference of the largest, aged non-performing assets (NPAs) to the Insolvency and Bankruptcy Code (IBC) under the powers bestowed upon the Bank by promulgation of the Banking Regulation (Amendment) Ordinance 2017 (since notified as an Act); and, finally,
- iii. The need for the Government of India (GoI) to meet the recapitalisation needs of public sector banks (PSBs), in their current ownership structure or otherwise.

Since then, the GoI has announced a recapitalisation package for PSBs in October 2017 of ₹2.11 trillion, comprising ₹1.53 trillion of government capital infusion and the balance to be raised from market funding, by March 2019. Equally importantly, the Reserve Bank of India issued a circular on the 12th of February, 2018 for the resolution of stressed assets, which employs the IBC reference as its lynchpin for resolution and is aimed at improving the credit culture in both borrowers and lenders.

Another significant step has been taken by the Reserve Bank of India in parallel which has been somewhat under-appreciated, *viz.*, the imposition of **Prompt Corrective Action (PCA)** on a number of banks whose capital, asset quality and/or profitability do not meet pre-specified thresholds. Today, I wish to explain why PCA is an essential element of the Reserve Bank's (and more generally, of a banking supervisor's) financial stability framework.

Loss-absorption Role of Bank Capital

Before I discuss the Prompt Corrective Action approach, it would be useful to briefly talk about the critical role of bank capital in relation to the process of resolution of stressed banks.

In its simplest form, a bank balance-sheet has assets on the left hand side of the balance-sheet, and liabilities on the right hand side in the form of equity capital and deposits (and other forms of debt liabilities such as unsecured bonds, and wholesale finance such as inter-bank liabilities or short-term commercial paper).

Equity capital is the primary loss-absorption buffer – means of protection – against the asset losses of a bank. It is meant to be at levels high enough to absorb unanticipated losses with enough margin so as to inspire confidence and enable the bank to continue as a going concern, in particular, without passing on losses to bank creditors. Once the capital level is fully consumed by the deteriorating financials, it exposes the unsecured creditors, including depositors, to bear the losses. While the deposits typically are insured up to a certain level, economic history shows that more often than not the ultimate costs of paying off all deposits fall on the sovereign, especially in the case of large, complex and inter-connected banks.

Capital constraints at a wider, systemic level also impact the resolution of weak banks. The United States experience, empirically documented by Granja, Matvos and Seru (2017), shows that an optimal bidding

strategy of a healthier bank – a potential acquirer, which may value the weaker bank for its franchise value from deposits, gets adversely impacted if it is itself poorly capitalised. In such a scenario, the overall value realisation for the weak bank goes down. The poor capitalisation of potential acquirers can also drive a wedge between their willingness and ability to pay for a failed bank. In this manner, bank capital being at healthy levels also has a system-wide loss-absorption role by helping sell weak banks to healthy ones in an efficient manner.

Given this criticality of bank capital in absorbing losses, it is natural why minimum bank capital requirements are in place globally and why capital becomes one of the most important factors for supervisors to monitor. In the aftermath of the global financial crisis, there has been a complete overhaul of the international regime for minimum regulatory capital requirements of banks, as enshrined in the revised Basel norms, *viz.*, Basel-III.

The goal of Basel III is to raise the quality, consistency and transparency of the capital base of banks to withstand unanticipated losses and to strengthen the overall risk coverage of the capital framework. In addition to revising the minimum capital ratio requirements for credit risk, Basel III also introduced a capital conservation buffer (CCB) and a countercyclical capital buffer. CCB is designed to ensure that banks build up a capital buffer outside periods of financial stress that can be drawn down when banks face financial (systemic or idiosyncratic) stress. Banks which draw down their capital conservation buffer during a stressed period are required to have a definite plan to replenish the buffer and face capital distribution constraints. The objective of the countercyclical capital buffer is to use capital as a macro-prudential instrument aimed at protecting the banking sector from periods of excess aggregate credit growth, that have often been associated with the build-up of system-wide risk.

In this regard, it is instructive to note that the minimum bank capital ratio (to suitably risk-weighted assets) required to be held under the Basel norms is only a floor. Since the global financial crisis, many countries require their banks to hold capital at higher levels, as shown below. Further, in other major jurisdictions like the US and the UK, effective capital requirements tend to be even higher on account of several add-ons; for instance, in the US, higher leverage ratio (put simply, bank capital to unweighted assets ratio) and the stress tests – annual Comprehensive Capital Analysis and Review (CCAR) – also push up the effective capital requirements beyond Basel requirements for systemically important and/or large banks.

While this view of bank capital focuses on its benefits in the form of loss-absorption adequacy at individual bank and systemic level, there is an equally important incentive role played by bank capital that is worthy of discussion.

Incentive Role of Bank Capital

Let me now explain why it becomes imperative for bank supervisors to intervene in a weak bank much *before* the capital is completely eroded. Conceptually, there are at least two reasons why the world over banks that make losses to the point of being under-capitalised do not recapitalise, or are not recapitalised, promptly.

First, while private banks typically hold greater capital than required by regulatory requirements, shareholders are reluctant to inject capital once the capital is eroded by losses as it gets primarily deployed in stabilising bank liabilities. To compensate for this wealth transfer for injecting capital, shareholders require a much higher rate of return than when banks are better capitalised, but such high required returns may render banking activity unprofitable to pursue. This is the well-known 'debt overhang' problem, studied extensively in financial economics (Myers, 1977).

Secondly, when banks become under-capitalised en masse or are government-owned to start with, it is often thought that recapitalisation should occur swiftly given the attendant real and systemic risk costs of not recapitalising banks – costs that a government should internalise. In practice, however, banking sectors are sometimes 'too big to save' relative to the size of government balance-sheets. Even when that is not so, governments may themselves be financially constrained: bank recapitalisations must earn effective returns that exceed the costs of raising additional finance (usually additional borrowings) or from cutting back on other fiscal expenditures. Hence, it is quite common, even for government-owned under-capitalised banks to take a while to get adequately recapitalised, if at all.

Jurisdictions	Minimum Common Equity Ratio	Minimum Tier 1 Capital Ratio	Minimum Total Capital Ratio
Basel III Prescriptions	4.5	6.0	8.0
Brazil			11 from 2013, gradually aligning to Basel III by 2019 – subsequently as per Basel
China	5.0	6.0	8.0
India	5.5	7.0	9.0
Mexico (CCB is integrated into minimum requirements)	7.0	8.5	10.5
Singapore	6.5	8.0	10.0
South Africa	5.0	6.75	9.0
Switzerland	4.5 to 10.0	6.0 to 13.0	8.0 to 19.0
Turkey	4.5	6.0	12.0

Source: Regulatory Consistency Assessment Programme (RCAP) reports of the Bank for International Settlements (BIS)

Regardless of the reason for the under-capitalisation of banks to persist, what is observed is that creditors of under-capitalised banks are not only offered off-balance sheet government guarantees, notably deposit insurance, but also implicit guarantees to uninsured creditors. This is done in the interest of financial stability and safeguarding of payment and settlement systems, but carries the downside that under-capitalised banks often continue to access credit markets at artificially low costs of borrowing. Consequently, without appropriate supervisory constraints in place, such banks are in a position to delay the recognition of losses and engage in ever-greening or zombie lending, which is essentially the rolling over of debts of unviable borrowers that would have otherwise defaulted.

In fact, this was precisely what happened in Japan at the turn of the last century when the problem of non-performing loans and bank capital shortage persisted for over a decade. Hoshi and Kashyap (2010) attribute this to two factors: first, banks not recognising the true losses on NPAs, thereby overstating the quality of their loans; and, second, prevalence of zombie lending by under-capitalised banks. It was only after the implementation of the Financial Revival Program (Takenaka Plan) starting in 2003, involving more rigorous evaluation of bank assets, increasing of bank capital, and strengthening of governance for recapitalised banks, that the Japanese banks finally stopped the process of ever-greening non-performing loans and started to accumulate capital through retained earnings over the next five years.

In addition to the above evidence on Japan which I covered in some detail in the 8th R K Talwar Memorial Lecture, my recent joint work with Sascha Steffen and Lea Steinruecke, titled *'Kicking the Can Down the Road: Government Interventions in the European Banking Sector,'* examined all government interventions in the Eurozone banking sector during the 2007 to 2009 financial crisis. In particular, we

analysed the implications of these interventions in the European banking sector for the subsequent sovereign debt crisis and found that:

- i. Governments with weaker public finances were more reluctant to recapitalise distressed banks during the financial crisis; and,
- ii. The resulting insufficient recapitalisation of distressed banks had significant negative consequences for the efficiency of real sector lending. In particular, weak banks remained vulnerable to future shocks and increased their risk-taking. Furthermore, these banks did not write down defaulted loans but instead ever-greened loans to zombie borrowers, crowding out in the process credit extension to healthier borrowers.

The Case for Regulatory Prompt Corrective Action

How should under-capitalised banks, and more generally, banks whose asset quality and profitability make them vulnerable to further stress, be dealt with, taking cognizance of the reality that the strength of market discipline by bank creditors is blunted by the presence of explicit and implicit government guarantees?

This question received significant academic and policy-maker attention in the United States following the Savings & Loans (S&L) crisis, in which by mid-1980's, so many thrifts had to be resolved at such low levels of capitalisation that in the end a significant government bailout in the form of blanket deposit insurance had to be engineered. Effectively, it had been left until too late to exercise regulatory discipline that could have substituted for the lack of adequate market discipline; as a result, the authorities had to engage in excessive forbearance and full-scale bailout.

Key insight that emerged from the debate around the S&L crisis was that the banking regulator needed to adopt a 'structured early intervention and resolution'

(SEIR) approach (see, for instance, Benston and Kaufman, 1990, and White, 1991). This insight, in turn, led to the passage of the Federal Deposit Insurance Corporation (FDIC) Improvement Act (FDICIA), 1991, and, thus, was born the Prompt Corrective Action (PCA) framework of the FDIC as modern banking has witnessed. [Another twin born then was risk-based deposit insurance premium!]

Prompt Corrective Action frameworks adopt the core principles of structured early intervention and resolution in the following manner:

- i. Thresholds of performance (in case of FDIC, bank capitalisation) are identified to classify banks that breach the thresholds into categories, for instance, in the case of FDIC into 'under-capitalised', 'significantly under-capitalised' and 'critically under-capitalised'. The first thresholds are set at levels that are well above what would allow for an effective resolution or revival of banks.
- ii. Banks that do not meet the thresholds are subjected to a layered, progressively stringent 'program', consisting of mandatory and discretionary regulatory actions, which aim to prevent further haemorrhaging, effectively quarantining the banks in breach until they are resolved. Another important rationale is to help supervisors enforce corrective measures in a rule-based manner and this way reduce the risk of forbearance.

Put simply, this is what Prompt Corrective Action (or PCA) is intended to achieve – to intervene early and take corrective measures in a timely manner, so as to restore the financial health of banks that are at risk by limiting deterioration in their health and preserving their capital levels. By construction then, PCA involves some restrictions on bank scope and expansion as not doing so would lead to excessive risks on the

balance-sheets of these banks. Similarly, putting up PCA banks for sale in the market and / or replacing bank management become potential mechanisms for prompt resolution. It follows as a corollary that the strength of the PCA framework depends crucially on the extent of regulatory powers that can be exercised by the banking regulator.

While the intent of PCA is primarily remedial, it can also act as a deterrence and incentivise bank management and shareholders to contain risks so they do not end up in PCA in the first place. And, by the virtue of being reasonably rule-based, PCA reduces the scope for discretion; like Odysseus, bank regulators tie themselves to the mast to evade the voices of the forbearance sirens.

Reserve Bank's Prompt Corrective Action (PCA) Framework

The Reserve Bank's PCA framework was introduced in December 2002 as a structured early intervention mechanism along the lines of the FDIC's PCA framework. Subsequently, the framework was reviewed by the Reserve Bank keeping in view the international best practices and recommendations of the Working Group of the Financial Stability and Development Council (FSDC) on Resolution Regimes for Financial Institutions in India (January 2014) and the Financial Sector Legislative Reforms Commission (FSLRC, March 2013). The Revised PCA Framework was issued by the Reserve Bank on April 13, 2017 and implemented with respect to the bank financials as on March 31, 2017.

Annex Ia provides the thresholds deployed under the revised framework, publicly available at <https://www.rbi.org.in>, linked to capital (CRAR – regulatory capital to risk-weighted assets ratio – and Leverage ratio), asset quality (NNPA – net non-performing assets to advances ratio), and profitability (ROA – return on assets). Under each measure, once the initial threshold is crossed, successive thresholds are employed to

categorise banks into those violating Threshold 1 only, Threshold 1 and Threshold 2 only, or even Threshold 3.

The revised PCA framework strengthened the earlier one along several dimensions, the salient changes being as follows:

- i. While capital, asset quality and profitability continue to be the key areas for monitoring under the revised framework, common equity Tier-1 (Common equity Tier 1 capital to risk-weighted Assets) ratio has also been included to constitute an additional trigger along with monitoring of leverage. This change acknowledges that it is common equity capital of a bank that has the highest loss-absorption capacity and is the least like debt. Overall, risk thresholds under the revised framework have been made more granular.
- ii. Some of the corrective actions which were earlier a part of 'structured (mandatory) actions' to be taken by the supervisor have been moved to a more comprehensive menu of 'discretionary actions' under the revised framework (detailed comparison is in Annex Ib). Thus, the scope of mandatory actions across all risk thresholds has been restricted essentially to:
 - a. Restriction on dividend distribution/remittance of profits;
 - b. Requirement on promoters/owners/parents to bring in more capital;
 - c. Restrictions on branch expansion;
 - d. Higher provisioning requirement; and,
 - e. Restrictions on management compensation.
- iii. While no restriction has been imposed on the retail deposit-taking activity of any

bank till date, banks can be advised under the revised framework as a cost reduction measure to reduce or avoid altogether the high-cost bulk deposits and instead improve their Current Account and Saving Account (CASA) deposit levels.

It is useful to compare this Revised PCA Framework of the Reserve Bank to the PCA Framework of the FDIC as an international benchmark.

Comparison with the FDIC's PCA Framework

Details of various thresholds as well as the mandatory and discretionary actions under the PCA Framework of the FDIC are given in Annex II. In terms of the conceptual design, both frameworks mirror the core principles of structured early intervention and resolution. However, there are at least three significant differences:

- i. While FDIC triggers the PCA based only on bank capital thresholds, the Reserve Bank's PCA thresholds also include asset quality and profitability. The rationale for this difference is as follows. When provision coverage ratio (provisions to gross non-performing assets ratio) of banks is at international standards as in the US, most anticipated losses are already built into bank capital. In other words, non-performing assets net of provisions (NNPA ratio) is low. However, the provision coverage ratio of Indian banks has historically been much lower as we will see below (Chart 8), in part due to their maintaining only the minimum required provisions. As a result, the present level of bank capital masks the expected capital write-offs that will occur in future; this risk of future under-capitalisation is captured by looking for below-threshold asset quality (if NNPA ratio is high) and profitability (if

return on assets or ROA is low so that capital accretion in future will be weak).

- ii. The mandatory actions are much stricter and triggered earlier in terms of capitalisation levels in case of the FDIC. For instance, restrictions on asset growth and prior approval of certain expansion proposals kick in right at the breach of Threshold-1 ('under-capitalised' category of FDIC's PCA bank classification).
- iii. Beyond Threshold 2 ('significantly under-capitalised'), the mandatory actions by FDIC may include recapitalisation, change in management or even divestiture. Indeed, most banks under FDIC's PCA are resolved through auctions where typical outcome is a purchase by another bank with an assumption of the PCA bank's liabilities. Powers to undertake such actions in case of India's public sector banks (PSBs) lie with the Government of India. As enunciated in Governor Patel's speech in March 2018, '*Banking Regulatory Powers Should Be Ownership Neutral*,' the Reserve Bank lacks legislative powers to enforce divestiture or change in management at PSBs.

On balance, therefore, it can be concluded that the RBI's PCA Framework is less onerous as compared to the FDIC's PCA Framework.

Let me elaborate on the point (iii) above. *Purchase and Assumption* (P&A) is the most commonly used resolution method by the FDIC, as part of which a healthy institution purchases some or all of the assets of a failed bank and assumes some or all of the liabilities. When deciding which of these techniques to employ, the FDIC is guided legislatively by the 'least cost to the taxpayers' requirement. The

FDIC seeks bids from qualified bidders for the failed bank's assets and the assumption of certain liabilities, including deposits, and accepts the bid that is judged least costly.

If no viable P&A buyer can be found, then the FDIC typically deploys a deposit payoff. A deposit payoff involves repaying insured depositors, liquidating assets of the bank, and, dividing the proceeds from asset liquidation between itself and uninsured bank creditors. The FDIC might also use a Deposit Insurance National Bank (DINB) or bridge banks to resolve a failed bank, which entail establishing a new national bank with a short-period charter from the Office of the Comptroller of the Currency (OCC). The FDIC retains the majority of the assets in its corporate capacity as the receiver and eventually sells them.

In India, merger of weak banks with stronger ones has been the primary mode of resolution of weak banks in the past. Section 45 of the Banking Regulation Act 1949 empowers the Reserve Bank to make a scheme of amalgamation of a bank with another bank if it is in the depositors' interest or in the interest of overall banking system. The operation of the weak bank may be kept under moratorium for a certain period of time to ensure smooth implementation of the scheme. Many private sector banks have been merged with other private sector banks or the PSBs under this mechanism. Since the onset of reforms in 1991, there were 22 mergers in the Indian banking space till 2010, 11 of which were compulsory mergers under Section 45 of the BR Act, 1949 (Bishnoi and Devi, 2015). However, one of the critical preconditions for this approach to succeed is that a substantial part of the banking sector be well-capitalised. If the potential acquirers are poorly capitalised, it may result in inefficiencies in prices as well as timing in resolution of weak banks, besides increasing the risk of weakening the acquirers themselves through such acquisitions.

Performance of the PCA banks in India

Let me now turn to some data. The goal of the exercise will be to help understand the ten-year performance (wherever data is available) of banks on which the Reserve Bank has imposed the PCA. The reason for examining the performance of these banks over a long time period is to appreciate the fact that the progress of banks under PCA cannot be judged over a relatively short time scale. The longer the under-capitalisation and asset quality problems have festered, the more patient one has to be during the rehabilitation process. There is no quick fix or overnight silver bullet here; the reforms have to be implemented and allowed to run their course; they can't be chopped or diluted mid-stream; the focus has to be on stability that is durable.

As I explain below, there are emerging signs that the performance of banks under PCA is slowly but steadily being restored.

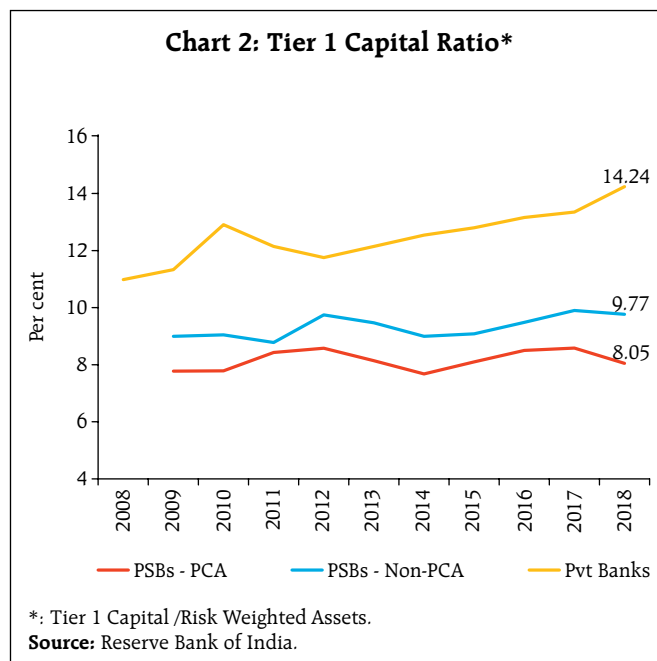
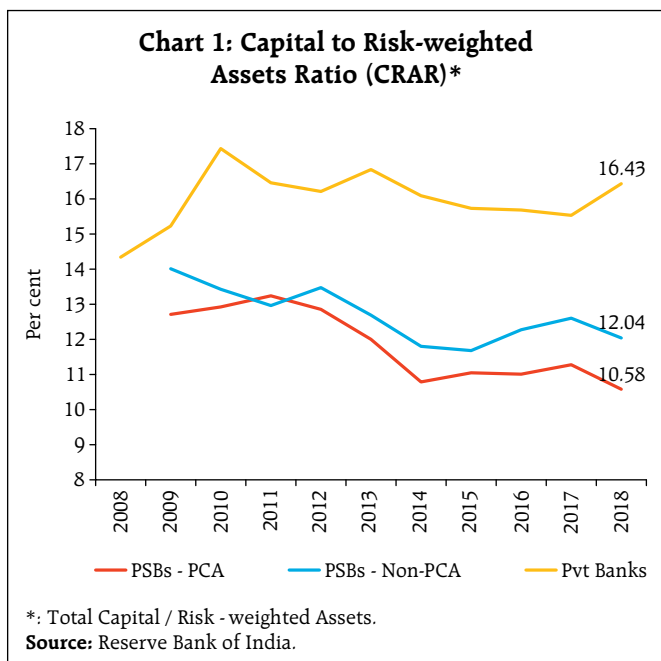
Presently, there are twelve banks, eleven in the public sector and one in the private sector, under the Reserve Bank's Revised PCA Framework, with PCA having been imposed on them between February 2014 and January 2018. I will focus below only on the eleven

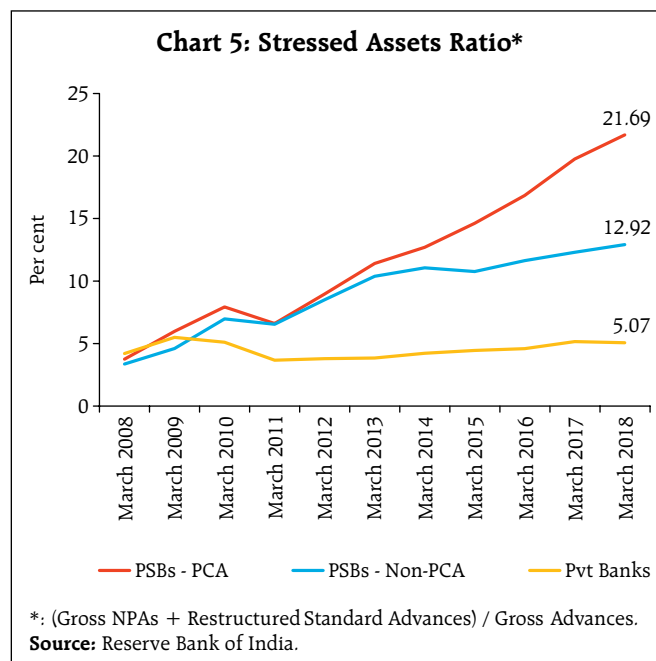
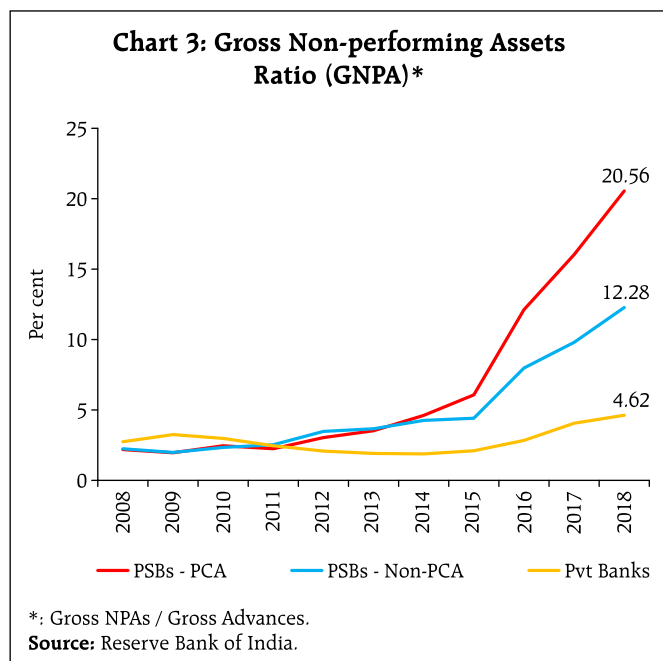
PSBs under the PCA. The share of these PCA banks in advances and deposits as on March 31, 2018 was 18.5 per cent and 20.8 per cent, respectively.

The following trends emerge as one tracks the performance of these banks in terms of capitalisation and asset quality:

(i) Capitalisation (Charts 1, 2): The declining trend of CRAR and Tier-1 capital ratio for PCA banks that started in 2011 has been arrested and the ratio has been maintained steady since 2014 at or above internationally prescribed levels. It may, however, be noted that the PCA banks have had lower CRAR and Tier-1 capital ratios compared to non-PCA banks (barring 2011), and especially private banks (right since 2009).

(ii) Asset quality (Charts 3, 4, 5): Both the gross and net NPA ratios of PCA banks mirrored those of non-PCA banks up until about 2014. However, post the Asset Quality Review (AQR) exercise, the NPA recognition at PCA banks has led to a sharper rise in both gross and net NPAs, relative to non-PCA banks, and especially relative to private banks. This does not mean that AQR caused the NPAs; it simply induced the long-overdue recognition of NPAs. Notably, the





stressed assets ratio, which besides NPAs includes the Restructured Standard assets (that enjoyed the regulatory forbearance under the earlier guidelines), reveals that the underlying asset quality at PCA banks was deteriorating at a sharper pace compared to non-PCA banks right since 2011, which is now accepted as the time by which the lending boom of 2009-10 began to unravel.

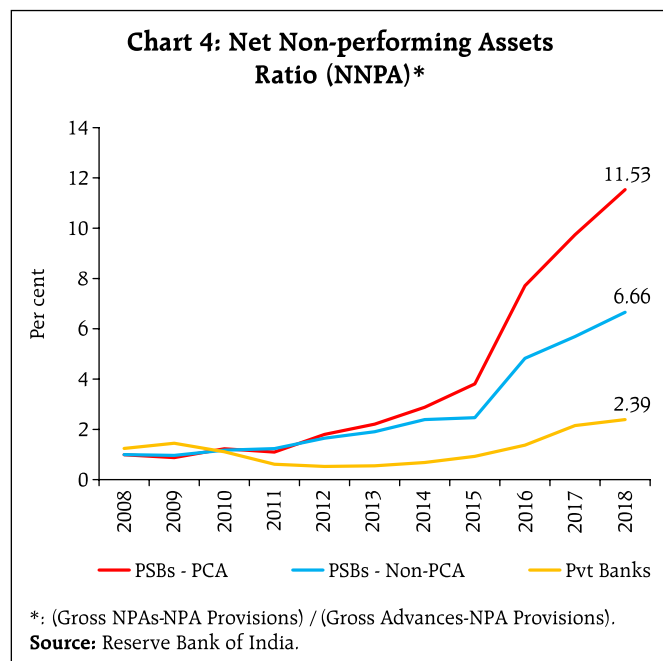
The Tide is Turning for the PCA Banks...

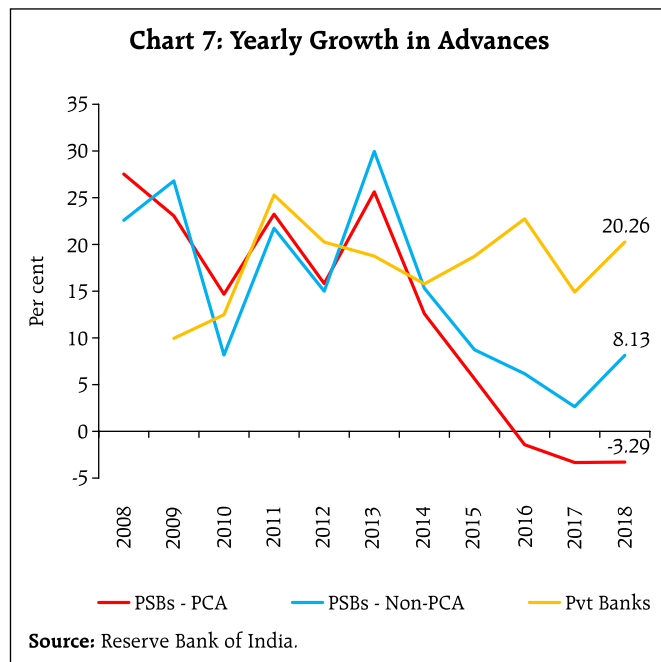
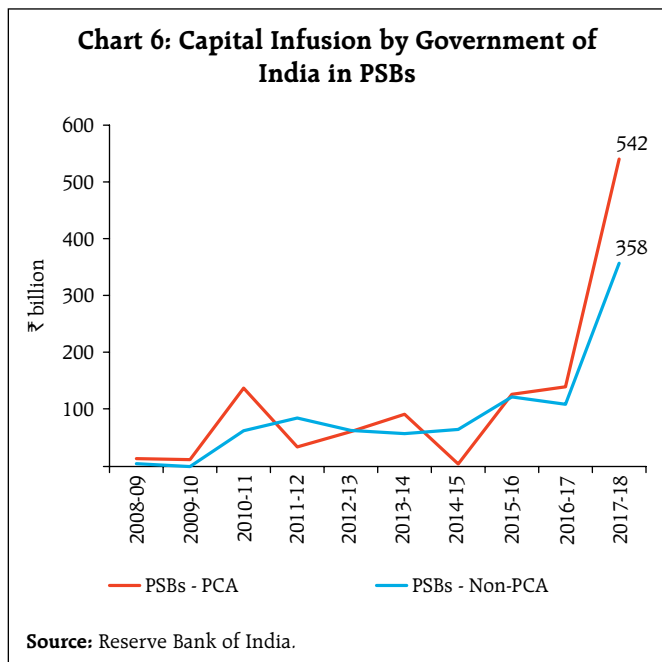
As I have tried to explain, an important objective of the PCA is to first and foremost limit further losses and prevent erosion of bank capital, creating a platform of stability for the bank, and in turn, setting the stage for structural interventions to be implemented and pushed through.

In assessing whether this objective is being attained, three observations are in order:

(i) **Recapitalisation** (Chart 6): The Government of India has infused more than ₹2,300 billion in public sector banks since 2005, more than half of which has gone into banks currently under PCA. Within PCA banks, almost half of the total infusion (*i.e.*, ₹635 billion) has occurred during FY2018 and FY2019, after the banks were classified under PCA. This recapitalisation has been an important contributor to financial stability of these banks and of the rest of the banking system they deal with.

(ii) **Preventing Further Deterioration** (Chart 7): In spite of their worse capitalisation and stressed assets ratio compared to other banks, PCA banks had credit growth that was as strong as that of other banks



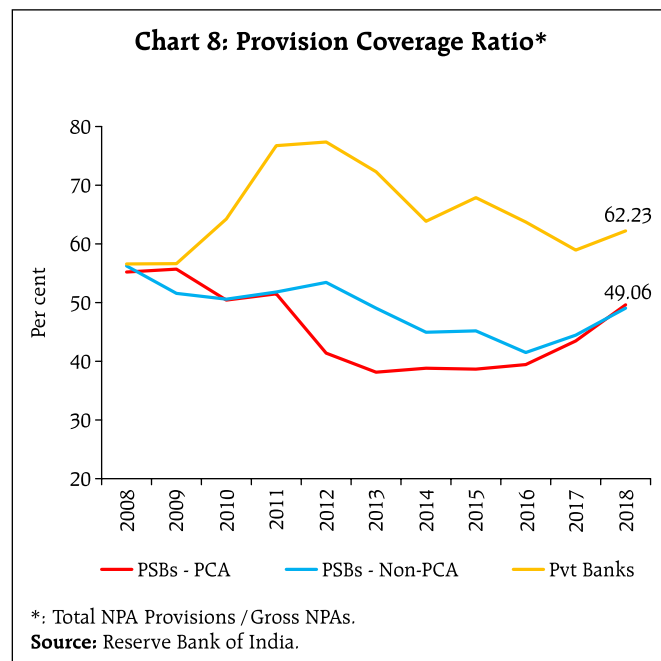


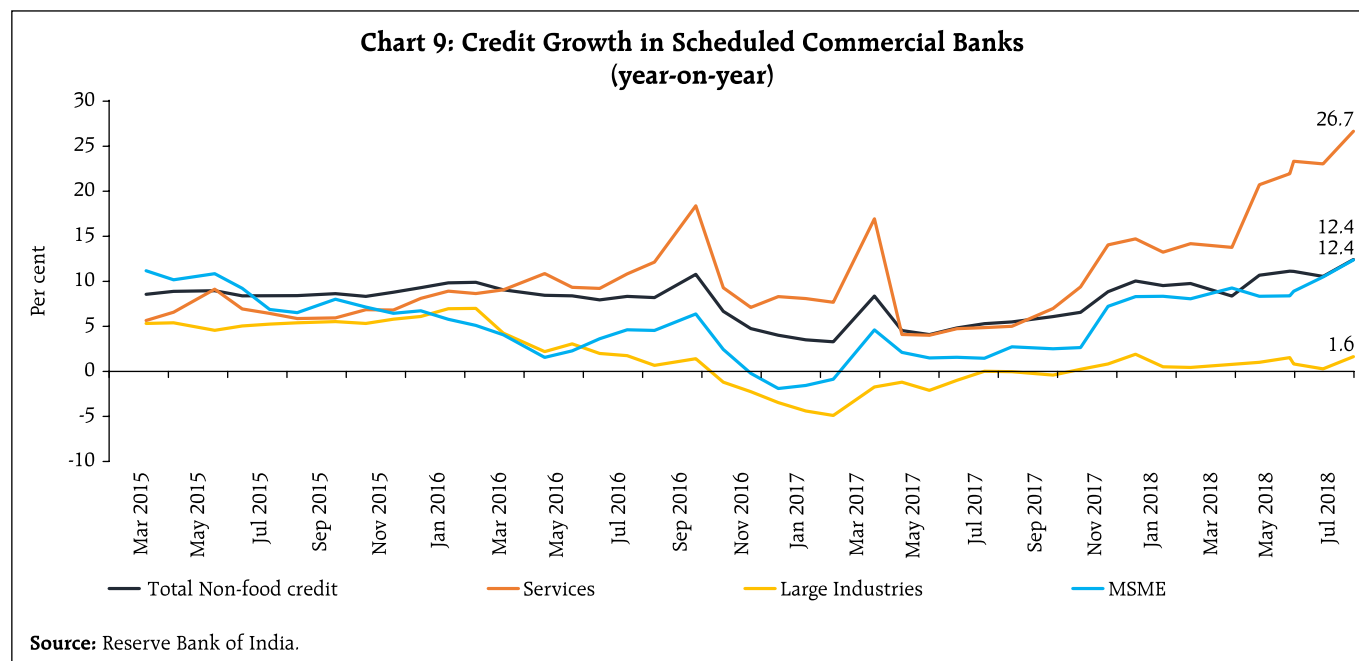
up until 2014. However, since the AQR exercise and the imposition of PCA, the year on year growth in advances for PCA banks has declined from over 10 per cent in 2014 to below zero (contraction) by 2016 and remained in the contraction zone since. Given the evidence presented above on PCA banks' sustained problem of asset quality (Charts 3, 4 and 5), this is indeed the required medicine to prevent further hemorrhaging of their balance-sheets.

(iii) Improvement in Provision Coverage Ratio (Chart 8): Given the recapitalisation and prevention of further haemorrhaging, the provision coverage ratio (PCR) of PCA banks which had fallen off relative to that of other banks starting 2011 and reached below 40 per cent during 2012-2016, has now recovered to that of non-PCA PSBs. The recovered level of PCR remains at present at around 50 per cent, which is more 10 per cent below that of private banks, and away from the desirable 70 per cent. These numbers suggest that the loss-absorption capacity of PCA banks is on the mend, but that there is some distance to go in their catch-up to healthy levels.

There is an assertion being made in some circles that imposition of the PCA has starved the Indian

economy of credit. There is little factual basis for this assertion, either for the overall economy or at sectoral level. While it is true as shown above that PCA banks are experiencing lending contraction on average (in terms of their year on year growth in overall advances), the nominal non-food credit growth of scheduled commercial banks has been close to or above double-digit levels, for past several quarters,





and with a robust distribution across the sectors of the real economy (Chart 9). This is because the reduction in lending at PCA banks is being more than offset by credit growth at healthier banks. This is indeed what one wants – efficient reallocation of credit for the real economy with a financially stable distribution of risks across bank balance-sheets. Indeed, the funding for the economy as a whole has become diversified over this period, also due to the growth of capital markets.

There is also a call for more lending by PCA banks to large industries where the overall credit growth remains muted. Note that many of these industries are heavily indebted to start with and are going through a deleveraging process under the IBC (so that at present, their sectoral capacity is still somewhat in excess and credit demand itself weak). The key point is that PCA banks are de-risking the asset side of their balance sheets by moving away from riskier sector loans to less riskier ones and government securities; the first and foremost priority is to limit (effectively, taxpayer) losses at PCA banks and prevent further erosion of their capital.

Conclusion

Let me conclude.

I have tried to explain why adequate bank capital is critical to fortify bank balance-sheets and a key indicator for the bank supervisors to closely monitor; and, how the Prompt Corrective Action (PCA) framework is employed internationally by bank supervisors and regulators as an accepted form of structured early intervention and resolution, designed to help banks regain health by preserving capital.

I then briefly explained the primary features of the Reserve Bank’s PCA framework, which is an essential element of its apparatus for safeguarding overall financial stability.

The evidence I presented suggests that without the PCA imposition, some banks would have incurred even higher losses and required even more of taxpayer money for recapitalisation. Imposition of PCA can, thus, be seen as first, stabilising the banks at risk, and then, undertaking the deeper bank reforms needed for long-term viability of the business model of these banks.

It is important, therefore, that the PCA framework to deal with financially weak banks is persisted with. Any slackening of the approach in the midst of required course action is an all too familiar and ultimately harmful habit that we must eschew.

Well begun is only half done, as they say!

References

- Acharya, Viral V. (2017) *'The Unfinished Agenda: Restoring Public Sector Bank Health in India,'* R K Talwar Memorial Lecture, Indian Institute of Banking and Finance.
- Acharya, Viral V., Sascha Steffen and Lea Steinruecke (2018) *'Kicking the Can Down the Road: Government Interventions in the European Banking Sector,'* Working Paper, Frankfurt School of Management and Finance.
- Benston, George and George Kaufman (1990) *'Understanding the Savings and Loan Debacle,'* The Public Interest, Spring, pp. 79-95.
- Bishnoi, T.R. and Sofia Devi (2015) 'Mergers and Acquisitions of Banks in Post-Reform India,' *Economic & Political Weekly*, 50(37), pp. 50-58.
- Granja, Joao, Gregor Matvos and Amit Seru (2017) *'Selling Failed Banks,'* *Journal of Finance*, 72(4), pp. 1723-1784.
- Hoshi, T. and A.K. Kashyap (2010) *'Will the U.S. bank recapitalisation succeed? Eight lessons from Japan,'* *Journal of Financial Economics* 97, 398–417.
- Myers, Stewart (1977) *'Determinants of Corporate Borrowing,'* *Journal of Financial Economics*, 5, pp. 147-175.
- Patel, Urjit R. (2018) *'Banking Regulatory Powers Should be Ownership Neutral,'* Inaugural Lecture – Center for Law & Economics; Center for Banking & Financial Laws, Gujarat National Law University.
- White, Larry (1991) *'The S&L Debacle: Public Policy Lessons for Bank and Thrift Regulation,'* Oxford University Press.

Annex Ia: RBI's Revised PCA Matrix (April 2017) - Indicators and Risk Thresholds

Revised PCA Framework				
	Indicator	Risk Threshold 1	Risk Threshold 2	Risk Threshold 3
Capital <i>(Breach of either CRAR or CET 1 ratio to trigger PCA)</i>	CRAR - Minimum regulatory prescription for capital to risk assets ratio + applicable capital conservation buffer(CCB)	upto 250 bps below Indicator	more than 250 bps but not exceeding 400 bps below Indicator	-
	current minimum RBI prescription of 10.875 per cent (9 per cent minimum total capital plus 1.875 per cent* of CCB as on March 31, 2018)	<10.875 per cent but >=8.375 per cent	<8.375 per cent but >= 6.875 per cent	-
	And/ Or Regulatory pre-specified trigger of Common Equity Tier 1 (CET 1min) + applicable capital conservation buffer(CCB)	upto 162.50 bps below Indicator	more than 162.50 bps below but not exceeding 312.50 bps below Indicator	In excess of 312.50 bps below Indicator
	current minimum RBI prescription of 7.375 per cent (5.5 per cent plus 1.875 per cent* of CCB as on March 31, 2018)	< 7.375 per cent but >= 5.75 per cent	< 5.75 per cent but >=4.25 per cent	< 4.25 per cent
	Breach of either CRAR or CET 1 ratio to trigger PCA			
Asset Quality	Net Non-performing advances (NNPA) ratio	>=6.0 per cent but <9.0 per cent	>=9.0 per cent but < 12.0 per cent	>=12.0 per cent
Profitability	Return on assets (ROA)	Negative ROA for two consecutive years	Negative ROA for three consecutive years	Negative ROA for four consecutive years
Leverage	Tier 1 Leverage ratio	<=4.0 per cent but >= 3.5 per cent (leverage is over 25 times the Tier 1 capital)	< 3.5 per cent (leverage is over 28.6 times the Tier 1 capital)	

Annex Ib: Mandatory and Discretionary Corrective Actions under RBI's Old (2002) and Revised (2017) PCA Frameworks

Specifications	Mandatory/Structured Actions		Discretionary Actions	
	Old PCA Framework (Structured Actions)	Revised PCA Framework (Mandatory Actions)	Old PCA Framework	Revised PCA Framework
Capital Risk Threshold 1	<ul style="list-style-type: none"> Submission and implementation of capital restoration plan by the bank Bank will restrict expansion of its risk-weighted assets Bank will not enter into new lines of business Bank will not access / renew costly deposits and CDs Bank will reduce / skip dividend payments 	<p>Restriction on dividend distribution/remittance of profits to the parent in the case of foreign banks</p> <p>Promoters/owners/parent in the case of foreign banks to bring in capital</p>	<ul style="list-style-type: none"> RBI will order recapitalisation Bank will not increase its stake in subsidiaries Bank will reduce its exposure to sensitive sectors like capital market, real estate or investment in non-SLR securities RBI will impose restrictions on the bank on borrowings from inter bank market Bank will revise its credit / investment strategy and controls 	<p>Common menu</p> <p>Special Supervisory Interactions</p> <ul style="list-style-type: none"> Special Supervisory Monitoring Meetings (SSMMs) at quarterly or other identified frequency Special inspections/targeted scrutiny of the bank Special audit of the bank <p>Strategy related</p> <p>RBI to advise the bank's Board to:</p> <ul style="list-style-type: none"> Activate the Recovery Plan that has been duly approved by the supervisor Undertake a detailed review of business model in terms of sustainability of the business model, profitability of business lines and activities, medium and long term viability, balance sheet projections, etc.
NPA Risk Threshold 1	<ul style="list-style-type: none"> Bank to undertake special drive to reduce the stock of NPAs and contain generation of fresh NPAs Bank will review its loan policy Bank will take steps to upgrade credit appraisal skills and systems Bank will strengthen follow-up of advances including loan review mechanism for large loans Bank will follow-up suit filed / decreed debts effectively Bank will put in place proper credit-risk management policies / process / procedures / prudential limits Bank will reduce loan concentration - individual, group, sector, industry, etc. 		<ul style="list-style-type: none"> Bank will not enter into new lines of business Bank will reduce / skip dividend payments Bank will not increase its stake in subsidiaries 	<ul style="list-style-type: none"> Review short term strategy focusing on addressing immediate concerns Review medium term business plans, identify achievable targets and set concrete milestones for progress and achievement Review all business lines to identify scope for enhancement/ contraction Undertake business process reengineering as appropriate Undertake restructuring of operations as appropriate <p>Governance related</p> <ul style="list-style-type: none"> RBI to actively engage with the bank's Board on various aspects as considered appropriate RBI to recommend to owners (Government/ promoters/ parent of foreign bank branch) to bring in new management/ Board RBI to remove managerial persons under Section 36AA of the BR Act 1949 as applicable RBI to supersede the Board under Section 36ACA of the BR Act 1949/ recommend supersession of the Board as applicable

Specifications	Mandatory/Structured Actions		Discretionary Actions	
	Old PCA Framework (Structured Actions)	Revised PCA Framework (Mandatory Actions)	Old PCA Framework	Revised PCA Framework
ROA Risk Threshold 1	<ul style="list-style-type: none"> Bank will not access / renew costly deposits and CDs Bank will take steps to increase fee-based income Bank will take steps to contain administrative expenses Bank will launch special drive to reduce the stock of NPAs and contain generation of fresh NPAs Bank will not enter into new lines of business Bank will reduce / skip dividend payments RBI will impose restrictions on the bank on borrowings from inter bank market 		<ul style="list-style-type: none"> Bank will not incur any capital expenditure other than for technological upgradation and for such emergent replacements within Board approved limits Bank will not expand its staff / fill up vacancies 	<ul style="list-style-type: none"> RBI to require bank to invoke claw back and malus clauses and other actions as available in regulatory guidelines, and impose other restrictions or conditions permissible under the BR Act, 1949 Impose restrictions on directors' or management compensation, as applicable. <p>Capital related</p> <ul style="list-style-type: none"> Detailed Board level review of capital planning Submission of plans and proposals for raising additional capital Requiring the bank to bolster reserves through retained profits Restriction on investment in subsidiaries/associates Restriction in expansion of high risk-weighted assets to conserve capital Reduction in exposure to high risk sectors to conserve capital
Capital Risk Threshold 2	<ul style="list-style-type: none"> All structured actions as in earlier zone Discussion by RBI with the bank's Board on corrective plan of action RBI will order recapitalisation Bank will not increase its stake in subsidiaries Bank will revise its credit / investment strategy and controls 	<p>In addition to mandatory actions of Threshold 1,</p> <p>Restriction on branch expansion: domestic and/or overseas</p> <p>Higher provisions as part of the coverage regime</p>	<ul style="list-style-type: none"> Bank / Govt. to take steps to bring in new Management / Board Bank will appoint consultants for business / organisational restructuring Bank / Govt. to take steps to change promoters / to change ownership RBI / Govt. will take steps to merge the bank if it fails to submit / implement recapitalisation plan or fails to recapitalise pursuant to an order, within such period as RBI may stipulate 	<p>Credit risk related</p> <ul style="list-style-type: none"> Preparation of time bound plan and commitment for reduction of stock of NPAs Preparation of and commitment to plan for containing generation of fresh NPAs Strengthening of loan review mechanism Restrictions on/ reduction in credit expansion for borrowers below certain rating grades Reduction in risk assets Restrictions on/ reduction in credit expansion to unrated borrowers Reduction in unsecured exposures Reduction in loan concentrations: in identified sectors, industries or borrowers Sale of assets Action plan for recovery of assets through identification of areas (geography wise, industry segment wise, borrower wise, etc.) and setting up of dedicated Recovery Task Forces, Adalats, etc.
NPA Risk Threshold 2	<ul style="list-style-type: none"> All structured actions as in earlier zone Discussion by RBI with the bank's Board on corrective plan of action Bank will not enter into new lines of business Bank will reduce / skip dividend payments Bank will not increase its stake in subsidiaries 			

Specifications	Mandatory/Structured Actions		Discretionary Actions	
	Old PCA Framework (Structured Actions)	Revised PCA Framework (Mandatory Actions)	Old PCA Framework	Revised PCA Framework
Capital Risk Threshold 3	<ul style="list-style-type: none"> All structured actions as in earlier zone RBI will observe the functioning of the bank more closely RBI / Govt. will take steps to merge / amalgamate / liquidate the bank or impose moratorium on the bank if its CRAR does not improve beyond 3 per cent within one year or within such extended period as agreed to. 	<p>In addition to mandatory actions of Threshold 1.</p> <p>Restriction on branch expansion: domestic and/or overseas</p> <p>Restriction on management compensation and directors' fees, as applicable</p>	-	<p>Market risk related</p> <ul style="list-style-type: none"> Restrictions on/reduction in borrowings from the inter-bank market Restrictions on accessing/ renewing wholesale deposits/ costly deposits/ certificates of deposits Restrictions on derivative activities, derivatives that permit collateral substitution Restriction on excess maintenance of collateral held that could contractually be called any time by the counterparty <p>HR related</p> <ul style="list-style-type: none"> Restriction on staff expansion Review of specialized training needs of existing staff <p>Profitability related</p> <ul style="list-style-type: none"> Restrictions on capital expenditure, other than for technological upgradation within Board approved limits Restrictions on dividend payments Restriction on staff expansion <p>Operations related</p> <ul style="list-style-type: none"> Restrictions on branch expansion plans; domestic or overseas Reduction in business at overseas branches/ subsidiaries/ in other entities Restrictions on entering into new lines of business Reduction in leverage through reduction in non-fund based business Reduction in risky assets Restrictions on non-credit asset creation Restrictions in undertaking businesses as specified. <p>Any other</p>

Annex II: FDIC PCA Matrix

	Well capitalised (All thresholds to be met)	Adequately capitalised (All thresholds to be met)	Under-capitalised (Any one or more thresholds in breach)	Significantly Under-capitalised (Any one or more thresholds in breach)	Critically Under-capitalised
Thresholds					
Total risk-based capital ratio	> 10 per cent	> 8 per cent	< 8 per cent	< 6 per cent	Tangible Equity/Total Assets ≤ 2 per cent
Tier 1 risk-based capital ratio	> 8 per cent	> 6 per cent	< 6 per cent	< 4 per cent	
Common equity tier 1 ratio	> 6.5 per cent	> 4.5 per cent	< 4.5 per cent	< 3 per cent	
Leverage ratio	>5 per cent	> 4 per cent	< 4 per cent	< 3 per cent	
Capital Directive/ Other	Not subject to a capital directive to meet a specific level for any capital measure	Does not meet the definition of well capitalized			
Provisions					
Mandatory Actions		No brokered deposits except with FDIC approval	<ul style="list-style-type: none"> (i) Restricting payment of capital distributions and management fees (ii) Requiring that the FDIC monitor the condition of the FDIC-supervised institution (iii) Requiring submission of a capital restoration plan within the established schedule (iv) Restricting the growth of the assets (v) Requiring prior approval of certain expansion proposals 	<p>In addition to Threshold 1</p> <p>Restrict compensation paid to senior executive officers of the institution</p> <p>Any 1 or more of the following:</p> <ul style="list-style-type: none"> (i) Requiring recapitalization (ii) Restricting transactions with affiliates (iii) Restricting interest rates paid. (iv) Restricting asset growth. (v) Restricting activities (vi) Improving management <ul style="list-style-type: none"> (a) new election of directors. (b) dismissing directors or senior executive officers (c) employing qualified senior executive officers (vii) Prohibiting deposits from correspondent banks 	<p>In addition to Threshold 1</p> <p>Restrict compensation paid to senior executive officers of the institution.</p> <p>Prohibited on making any principal or interest payment on subordinated debt beginning 60 days after becoming critically undercapitalized.</p> <p>Prohibited from doing any of the following without the FDIC's prior written approval:</p> <ul style="list-style-type: none"> (A) Entering into any material transaction other than in the usual course of business, including any investment, expansion, acquisition, sale of assets, or other similar action with respect to which the depository institution is required to provide notice to the appropriate Federal banking agency. (B) Extending credit for any highly leveraged transaction.

	Well capitalised (All thresholds to be met)	Adequately capitalised (All thresholds to be met)	Under-capitalised (Any one or more thresholds in breach)	Significantly Under-capitalised (Any one or more thresholds in breach)	Critically Under-capitalised
				(viii) Requiring prior approval for capital distributions by bank holding company. (ix) Requiring divestiture (x) Any other action	(C) Amending the institution's charter or bylaws, except to the extent necessary to carry out any other requirement of any law, regulation, or order. (D) Making any material change in accounting methods. (E) Engaging in any covered transaction (F) Paying excessive compensation or bonuses. (G) Paying interest on new or renewed liabilities at a rate that would increase the institution's weighted average cost of funds to a level significantly exceeding the prevailing rates of interest on insured deposits in the institution's normal market areas. The appropriate Federal banking agency shall, not later than 90 days after an insured depository institution becomes critically undercapitalized: (i) appoint a receiver (or, with the concurrence of the Corporation, a conservator) for the institution; or (ii) take such other action as the agency determines, with the concurrence of the Corporation, would better achieve the purpose of this section, after documenting why the action would better achieve that purpose.

	Well capitalised (All thresholds to be met)	Adequately capitalised (All thresholds to be met)	Under-capitalised (Any one or more thresholds in breach)	Significantly Under-capitalised (Any one or more thresholds in breach)	Critically Under-capitalised
Discretionary Actions			<ul style="list-style-type: none"> (i) Requiring recapitalization (ii) Restricting transactions with affiliates (iii) Restricting interest rates paid. (iv) Restricting asset growth. (v) Restricting activities (vi) Improving management <ul style="list-style-type: none"> (a) new election of directors. (b) dismissing directors or senior executive officers (c) employing qualified senior executive officers (vii) Prohibiting deposits from correspondent banks (viii) Requiring prior approval for capital distributions by bank holding company. (ix) Requiring divestiture Any other action 	<ul style="list-style-type: none"> (i) Restrict the activities, and (ii) at a minimum, prohibit any such institution from doing any of the following without the Corporation's prior written approval: <ul style="list-style-type: none"> (a) Entering into any material transaction other than in the usual course of business, including any investment, expansion, acquisition, sale of assets, or other similar action with respect to which the depository institution is required to provide notice to the appropriate Federal banking agency. (b) Extending credit for any highly leveraged transaction. (c) Amending the institution's charter or bylaws, except to the extent necessary to carry out any other requirement of any law, regulation, or order. (d) Making any material change in accounting methods. (e) Engaging in any covered transaction (f) Paying excessive compensation or bonuses. (g) Paying interest on new or renewed liabilities at a rate that would increase the institution's weighted average cost of funds to a level significantly exceeding the prevailing rates of interest on insured deposits in the institution's normal market areas. 	

*On the Importance of Independent Regulatory Institutions – The Case of the Central Bank**

Viral V. Acharya

No analogy is perfect; yet, analogies help convey things better. At times, a straw man has to be set up to make succinctly a practical or even an academic point. Occasionally, however, real life examples come along beautifully to make a communicator's work easier. Let me start today with an antecedent from 2010 as it is particularly apposite for the theme of my talk:

'My time at the central bank is up and that is why I have decided to leave my post definitively, with the satisfaction of my duty fulfilled,' Mr Martin Redrado, Argentina's central bank chief, told a news conference late on Friday, January 29, 2010.

'We have arrived at this situation because of the national government's permanent trampling of institutions,' he said. *'Basically, I am defending two main concepts: the independence of the central bank in our decision-making process and that the reserves should be used for monetary and financial stability.'*

The roots of this dramatic exit lay in an emergency decree passed by the Argentine government led by Cristina Fernández on December 14, 2009, that would set up a Bicentennial Stability and Reduced Indebtedness Fund to finance public debt maturing

* Dr. Viral V Acharya, Deputy Governor, Reserve Bank of India - Lecture delivered as the A.D. Shroff Memorial Lecture, Mumbai on October 26, 2018. Author's note : I am grateful to Governor Dr. Urjit R Patel, Reserve Bank of India (RBI) for his suggestion to explore this theme for a speech, for referring me to the work of the Late Deena Khatkhate (2005), and for his constant encouragement, feedback and guidance. I am also indebted to insightful exchanges with Professor Rakesh Mohan of Yale University and former Deputy Governor of the RBI; Dr. Nachiket Mor of Bill and Melinda Gates Foundation, during his term as a Central Board Member of the RBI; my fellow Deputy Governor, N. S. Vishwanathan; my colleague, Dr. Michael D. Patra, Executive Director and Monetary Policy Committee member; as well as Jose Kattoor, Mridul Sagar and Vineet Srivastava of the RBI. All errors that remain are my own.

that year. This involved the transfer of \$6.6 billion of the central bank reserves to the national treasury. The claim was that the central bank had \$18 billion in 'excess reserves.' [In fact, Mr. Redrado had refused to transfer the funds; so the government attempted to fire him, by another emergency decree on January 7, 2010 for misconduct and dereliction of duty; this attempt, however, failed, as it was unconstitutional].

Besides sparking off one of the worst constitutional crises in Argentina since its economic meltdown in 2001, the chain of events led to a grave reassessment of its sovereign risk.

Within a month of Mr. Redrado's resignation, Argentine sovereign bond yields and the annual premium cost for buying insurance against loss from default on Argentine government bonds (measured as the sovereign credit default swap spread) shot up by about 2.5 per cent or 250 basis points, by more than a fourth of their prior levels.

Alberto Ramos, Argentina analyst at Goldman Sachs, noted on February 7, 2010: *'Using central bank reserves to pay government obligations is not a positive development and the concept of excess reserves is certainly open to debate. It weakens the balance sheet of the central bank and provides the wrong incentive to the government, as it weakens the incentive to control the rapid expansion of spending and to promote some consolidation of fiscal accounts in 2010.'*

Even more damagingly, a risk that Governor Redrado had warned about came to the fore. By beginning of January, 2010, Thomas Griesa, a New York judge, had frozen the Argentine central bank's account held at the Federal Reserve Bank of New York, following claims of investors that the central bank was no longer an autonomous agency but under the thumb of the country's executive branch.

(The above summary is based in part on *Argentina's central bank chief resigns*, Jude Webber, Financial Times, January 30, 2010; and *Argentina:*

Bank independence at stake as Redrado exits, Jason Mitchell, Euromoney, February 7, 2010).

This complex interplay of the sovereign's exercise of its powers, the central banker's exit, and the market's revolt, will be at the center of my remarks today on why it is important for a well-functioning economy to have an independent central bank, *i.e.*, a central bank that is independent from the executive branch of the government. I will also try to lay out why the risks of undermining the central bank's independence are potentially catastrophic, a 'self-goal' of sorts, as it can trigger a crisis of confidence in capital markets that are tapped by governments (and others in the economy) to run their finances.

Why Nations Succeed (or Fail)

Before I delve into this complex interplay, I wish to place the independence of the central bank in a more general context.

Academic discourse by political economists recognises the key role played by the rule of law and accountability of governments in enabling countries to flourish. Francis Fukuyama (*The Origins of Political Order*, 2011) considers these two elements, along with adequate state and institution-building, as all being critical for 'getting to Denmark,' or in other words, creating stable, peaceful, prosperous, inclusive and honest societies.

Daron Acemoglu and James Robinson (*Why Nations Fail*, 2012) summarize their body of work on the primacy of the quality of institutions in explaining the political and economic success or failure of states. Taking examples of 'twin' country case studies (such as S. Korea and N. Korea), the book elaborates the following important distinction:

- *Inclusive* economic and political institutions involve plurality in decision-making which help guarantee the rule of law and foster talent and creativity; in the presence of such institutions, economics and politics do not become hostage to a set of incumbents likely to be hurt by change.

- In *contrast*, extractive institutions limit access to a country's economic and financial resources to the ruling elites, hinder change and innovation, and over time, lead to stagnation and atrophy of the country's potential.

In conversations with former colleagues at New York University's Stern School of Business (NYU Stern), it was routine to categorise economies as encouraging and supporting either *value creation*, whereby entrepreneurs believed their *mantra* of success lay in challenging orthodoxy, or *rent extraction*, wherein businesses found value primarily from joining hands with regressive state policies and crowding out others who had no such access.

Regardless of the preferred theory and terminology for the importance of institutions, it is well accepted that they include, *inter alia*, property rights and their enforcement, the judiciary, and the election office in a democracy, instituted not just *de jure* but allowed to operate independently and function effectively *de facto*.

Somewhat less celebrated is the institution of an independent central bank, perhaps not just because the central bank is a relatively new kid on the block (in most cases less than a century old), but also because it interacts less directly with the public though its true influence is far-reaching.

Government and the Central Bank – A Tale of Two Horizons

A central bank performs several important functions for the economy: it controls the money supply; sets the rate of interest on borrowing and lending money; manages the external sector including the exchange rate; supervises and regulates the financial sector, notably banks; it often regulates credit and foreign exchange markets; and, seeks to ensure financial stability, domestic as well as on the external front.

The world over, the central bank is set up as an institution *separate* from the government; put

another way, it is not a department of the executive function of the government; its powers are enshrined as being separate through relevant legislation. Its tasks being somewhat complex and technical, central banks are ideally headed and manned by technocrats or field experts – typically economists, academics, commercial bankers, and occasionally private sector representatives, appointed by the government but not elected to the office. This architecture reflects the acceptance of the thesis that central banks should be allowed to exercise their powers independently.

Why is the central bank *separate* from the government? I will offer what I find to be a particularly intuitive explanation:

- (1) The first part of the explanation relates to the horizon of decision-making of a government *vis-à-vis* that of the central bank.

A government's horizon of decision-making is rendered short, like the duration of a T20 match (to use a cricketing analogy), by several considerations. There are always upcoming elections of some sort – national, state, mid-term, *etc.* As elections approach, delivering on proclaimed manifestos of the past acquires urgency; where manifestos cannot be delivered upon, populist alternatives need to be arranged with immediacy. Less important in the present scenario, but only recently so, wars had to be waged, financed and won at all costs. This myopia or short-termism of governments is best summarized in history by Louis XV when he proclaimed '*Après moi, le déluge!*' (After me, the flood!).²

In contrast, a central bank plays a Test match, trying to win each session but importantly also survive it so as to have a chance to win the next session, and so on.

² See Acharya and Rajan (2013) for a complete theoretical analysis modeling government myopia and populism (maximising simply the cash-flow and spending each period) in the presence of a sovereign debt market; implications for policies governing the financial sector; and attendant risks in the form of economic repression and financial crises.

In particular, the central bank is not directly subject to political time pressures and the induced neglect of the future; by virtue of being nominated rather than elected, central bankers have horizons of decision-making that tend to be longer than that of governments, spanning election cycles or war periods. While they clearly have to factor in the immediate consequences of their policy decisions, central bankers can afford to take a pause, reflect, and ask the question as to what would be the long-term consequences of their, as well as government's, policies. Indeed, by their mandate central banks are committed to stabilise the economy over business and financial cycles, and hence, have to peer into the medium to long term. Unsurprisingly, central banks strive to build *credibility* through a series of difficult choices that reflect sacrificing short-term gains for long-term outcomes such as price or financial stability.

- (2) The second part of the explanation as to why the central bank is separate from the government relates to the observation that much of what the central bank manages or influences – money creation, credit creation, external sector management, and financial stability – involves potential front-loaded benefits to the economy but with the possibility of attendant 'tail risk' in the form of back-loaded costs from financial excess or instability. For example,
 - (i) Greater supply of money can facilitate ease of financial transactions, including the financing of government deficits, but this can cause economy to over-heat in due course and trigger (hyper-)inflationary pressures or even a full-blown crisis that eventually require sharper monetary contractions;

- (ii) Excessive lowering of interest rates and/or relaxation in bank capital and liquidity requirements can lead to greater credit creation, asset-price inflation, and semblance of strong economic growth in the short term, but excessive credit growth is usually accompanied by lending down the quality curve which triggers malinvestment, asset-price crashes, and financial crises in the long term;
- (iii) Allowing foreign capital flows to flood into the economy can temporarily ease the financing pressures for an expanding government balance-sheet and the crowded-out private sector, but a 'sudden stop' or exodus of these flows in future can trigger a collapse of the exchange rate with adverse economy-wide spillovers; and,
- (iv) Sweeping bank loan losses under the rug by compromising supervisory and regulatory standards can create a façade of financial stability in the short run, but inevitably cause the fragile deck of cards to fall in a heap at some point in future, likely with a greater taxpayer bill and loss of potential output.

While not always the case, often the required interventions for stable growth are structural reforms by the government with upfront fiscal outlay; however, these may compromise populist expenditures or require displeasing incumbents. As a result, it might seem as an expedient solution to the government to ask/task/mandate/direct the central bank to pursue strategies that generate short-term gains but effectively create tail risks for the economy. To protect the economy from such short-termism, the central bank is designed to be at a safe distance from the executive branch of the government.

Undermining the Independence of the Central Bank

Now, although the central bank is formally organised to be separate from the government, its effective horizon of decision-making can be reduced for short-term gains by the government, if it so desires, through a variety of mechanisms, *inter alia*,

- (i) Appointing government (or government-affiliated) officials rather than technocrats to key central bank positions, such as Governor, and more generally, senior management;
- (ii) Pursuing steady attrition and erosion of statutory powers of the central bank through piece-meal legislative amendments that directly or indirectly eat at separation of the central bank from the government;
- (iii) Blocking or opposing rule-based central banking policies, and favoring instead discretionary or joint decision-making with direct government interventions; and,
- (iv) Setting up parallel regulatory agencies with weaker statutory powers and/or encouraging development of unregulated (or lightly regulated) entities that perform financial intermediation functions outside the purview of the central bank.^{3, 4}

If such efforts are successful, they induce policy myopia in the economy that substitutes macroeconomic stability with punctuated arrival of financial crises.

Therefore, there are several reasons why enshrining and maintaining central bank independence ends up being an *inclusive* reform

³ The most striking example is the presence of government-sponsored enterprises (GSEs) to support mortgages and home ownership in the United States. The GSEs are outside of any regulatory purview of the Federal Reserve, but have been deployed by successive governments to pursue populist housing policies, contributing significantly to the imbalances that led to the Global Financial Crisis of 2007-08 and the ensuing Great Recession (see, Acharya, van Nieuwerburgh, Richardson and White, 2011, for details).

⁴ See Acharya (2015) for discussion on the resulting need to ensure that the central bank has regulatory scope over parts of 'shadow banking' that are likely to be systemically important.

for the economy; and conversely, undermining such independence a regressive, *extractive* one:

- (i) When the government is seen often making efforts to dilute the central bank's policies and effectively coercing the central bank into such dilutions, banks and private sector spend more time lobbying for policies that suit them individually, at the cost of collective good, rather than investing in value creation and growth.
- (ii) When governance of the central bank is undermined, it is unlikely to attract or be able to retain the brightest minds that thrive on the ability to debate freely, think independently, and effect change; attrition of central bank powers results in attrition of its human capital and deterioration of its efficiency and expertise over time.
- (iii) When important parts of financial intermediation are kept outside the purview of the central bank, systemic risks can build up in 'shadow banking' with private gains in good times to a small set of players but at substantive costs to future generations in the form of unchecked financial fragility.

As such, the divergence in horizon of decision-making between government and the central bank that I have highlighted need not lead to any operational incompatibility as long as it is well-understood and well-accepted by both parties that it is precisely given this divergence that the central bank is formally separated from the executive office and meant to conduct its functions in an independent manner. The central bank can of course make mistakes, and is generally held publicly accountable through parliamentary scrutiny and transparency norms. This way, the institutional arrangement of independence, transparency and accountability to the public not only balance but also strengthen the central bank's autonomy. However, direct intervention and interference by the government

in operational mandate of the central bank negate its functional autonomy.

'Kiss of Death' – Incurring the Wrath of Markets

Far-sighted government leaders may be able to reap benefits of convincing voters about the importance of investing in macro-economic stability; for instance, by claiming credit for the long-term nature of financial sector outcomes attained by allowing the central bank autonomy in decision-making and delivery of its core functions. When such a measured perspective of an independent central bank as a key element of durable economic prosperity is missing and/or government myopia so rife as to lead to regular inroads into central banking apparatus and decisions, unfortunate accidents can arise. Macroeconomic management can become a tug of war between securing stability and inflicting misdirection; daily operational decisions lead to power struggles; and, as the central bank is forced to bend over backwards to retain credibility in the face of imminent pressures that would erode its independence, counter efforts to reduce its independence escalate.

As this dynamic plays out, markets watch keenly, and if uncertainty grows and confidence in central bank independence and credibility erode, then markets rap bond yields and exchange rate on the knuckles!

Let me elaborate.

Modern economies are, by and large, not autarkies; they rely on capital markets to finance their investments. This is especially true of governments as reflected in the relatively large size of sovereign (and quasi-sovereign) debt markets, denominated in domestic currency as well as foreign currency. As long-term risks such as inflation or financial instability rise, markets reprice sovereign debt and may potentially shun its financing altogether. This could have immediate spillovers to other markets such as for foreign exchange and foreign investments, potentially putting at risk also the external sector stability of the economy.

Therefore, the presence of this third player – the market – in the back and forth between a government and the central bank (more generally, regulatory institutions) is an important feedback mechanism. The market can discipline the government not to erode central bank independence, and it can also make the government pay for its transgressions. Interestingly, the market also forces central banks to remain accountable and independent when it is under government pressure.⁵

Besides the market revolt and strictures during the Argentine episode of 2010 that I recounted in my introductory remarks, it is to be noted that both of this year's emerging market sovereign bond and currency meltdowns got catalysed through a perception of government influence on central bank's monetary policy, including through sporadic communication by government with public on its desire to control the central bank's decision-making. In one case, a rate cut in the wake of rising inflation and mounting fiscal deficit did the damage; and in the other, it was a public pronouncement by the premier of the state about the 'evils' of interest rate hikes even when inflation was in double digit terrain.

Indeed, the market censure need not be limited to emerging markets. The public expression of government's bewilderment and disappointment at monetary tightening in the world's largest safe-haven economy, again at a time of rising inflation and fiscal deficit, has raised in minds of investors scenarios under which its reserve currency status cannot anymore be taken for granted (*A debate about central-bank independence is overdue*, The Economist, Oct 20, 2018).

⁵ An interesting suggestion from Michael Patra is that perhaps economies should not only have rules that delineate clearly the roles of the government and the central bank, but also a dispute resolution mechanism *a la* the World Trade Organisation (WTO). The very presence of a referee would recognise that differences in objectives and horizons of decision-making arise: central bank and government can (to borrow his exact words) '*go in there, slug it out, come out battered, but in understanding, since there has to be a clear winner whose hand will be upheld by the jury.*'

Barry Eichengreen, Professor of Economics and Political Science at the University of California, Berkeley, covers superbly, in his recent piece (2018), this critical feedback role of the market:

'There are good reasons why countries ... delegate monetary policy decisions to technocrats appointed for their expertise. They can take the long view. They can resist the temptation to manipulate monetary conditions for short-term gain. Privileging long-term stability, as history has shown, is positive for economic performance. And it is on this performance that elected leaders, rightly or wrongly, are judged.

Thoughtful politicians understand this. Hence their support for central bank independence and their respect for the convention that they should refrain from seeking to influence central bank decisions. Unfortunately, not all politicians are thoughtful. Not all have the patience to wait for long-term gains. Not all are pleased when appointees refuse to bow to their wishes. And not all are respectful of inherited institutions and conventions, be they central bank independence or, more broadly, the division of powers.

The question is whether they pay attention to markets.'

What Barry Eichengreen is perceptively observing is that if a government were to pay attention to markets, it would realize that central bank independence is in fact its strength and the central bank a sort of a true friend, someone who will tell the government unpleasant but brutally honest truths and correct to the extent it can any adverse long-term consequences of government policies.

Let me now turn to how all this relates to the Reserve Bank of India.

The Late Deena Khatkhate provides a masterful and scholarly assessment in *Reserve Bank of India: A Study in the Separation and Attrition of Powers* (2005). Some of the discussion below draws heavily from his

assessment and is updated for developments since then. Other excellent discussions of the central bank's autonomy and independence in the Indian context are contained in lectures by the Reserve Bank of India's former Governors, Dr. C. Rangarajan (1993) and Dr. Y. V. Reddy (2001, 2007). As we will see below, other Governors and Deputy Governors have also carried this abiding theme through their tenures. For some of them, even when the Reserve Bank's independence has been unclear *de jure*, governments have in the end had the wisdom to support it *de facto*; for others, however, the Reserve Bank's independence has remained a work in progress, an enduring challenge that the nation has been grappling with on an ongoing basis.

Progressive Evolution in Restoring Independence of the Reserve Bank of India

While the Reserve Bank has always derived several important powers from the Reserve Bank Act, 1935 and the Banking Regulation Act, 1949, what matters is the effective independence with which these powers can be exercised in practice. Over time, great strides have been undertaken by successive governments at the behest of the central bank, several economists, and umpteen committee reports, to restore the operational independence of the Reserve Bank. I will touch upon three such areas of healthy progress.

- (1) **Monetary Policy:** The Reserve Bank, like many central banks of the time, got quickly trapped into the socialist planning policies of post-independence government, setting not just the rate of interest on money but practically all rates of credit at different maturities, as well as doing sectoral credit allocation to the real economy.

Post the deregulation of interest rates in the 1990s, monetary policy achieved a more modern dimension. To start with, there was a 'multiple indicators' approach to setting interest rates. Having too many objectives for monetary policy

violates the Tinbergen principle of '*one objective, one instrument*'; it also renders it difficult to understand or communicate what the interest-rate setting is attempting to achieve at any point of time. Importantly, this approach entertained much regulatory discretion, often at the level of an individual, *viz.*, the Reserve Bank Governor. This made independence of monetary policy individual-specific; in other words, it allowed for government pressure to creep in easily for keeping rates low at times of fiscal expansion under one guise or the other.

This is exactly a setting where rules would be better than discretion, in particular to avoid the time-inconsistency problem, highlighted in the work of Nobel laureates Finn Kydland and Edward Prescott in 1970s and early 1980s. Kydland and Prescott (1977) consider the implication that people, including investors, could look into the future and anticipate the behavior of self-interested governments, so that a discretionary monetary policy could end up being compromised by government pressures, leaving inflationary expectations unanchored, whereas a monetary policy committed to a rule would be harder to bend and keep inflationary expectations at bay.⁶

Following several episodic bouts of double-digit inflation, a war on inflation and inflationary expectations, was finally launched in September 2013 by the then Governor Raghuram G Rajan; the Urjit Patel Committee Report to Revise and Strengthen the Monetary Policy Framework was released in 2014; and, finally, the Reserve Bank of India Act was modified in August 2016 to constitute the Monetary Policy Committee (MPC).

The MPC consists of three RBI members, including the Governor who reserves a casting

⁶ See also Buiter and Sibert (2000), who lay out the theoretical basis for the required legal and institutional arrangements, primarily operational independence of the central bank, for an effective monetary policy.

vote, and three external members appointed by the government. The MPC has been legislatively awarded a flexible inflation-targeting mandate of achieving 4 per cent consumer price index (CPI) inflation in the medium term, while paying attention to growth, with operational independence to achieve it, and with accountability in terms of transparency around the MPC's resolution, minutes summarising each individual committee member's decision, bi-annual monetary policy reports, and a written report to the government in case a +/- 2 per cent band around the target inflation level is violated for three quarters in a row.

The MPC, two years old since, has attempted steadfastly through its rate-setting decisions to build credibility of the inflation target, a process that is generally believed, and empirically documented, to help lower the long-term bond yields as well as stabilise the exchange rate. While the jury will remain out for some time on the economic impact of the flexible inflation-targeting framework, it is incontrovertible that the MPC has given monetary policy an independent institutional foundation. The government deserves much credit for its far-sightedness in legislating the required changes to strengthen this aspect of central bank's independence and distancing itself in the process from monetary decision-making (other than through the appointment of external members on the MPC).

- (2) **Debt Management:** For several decades post-independence, the Reserve Bank participated in short-term Treasury Bill issuances of the Government of India (bearing extraordinarily low interest rates) to fund its fiscal deficits. The Reserve Bank also publicly acknowledged that its open market operations (OMOs) were primarily geared to manage the government bond yields. This implied that the central bank balance-sheet

was always available as a resource – just like tax receipts – ready to monetise excessive government spending. Unsurprisingly, high inflation in India was engineered to please both Milton Friedman and Thomas Sargent, *i.e.*, it was always both a monetary and a fiscal phenomenon, as these two Nobel laureates in economics had respectively argued (Friedman, 1970 and Sargent, 1982).

Eventually, recognizing the fiscal imprudence and inflationary risks engendered by such automatic monetisation of government deficits, joint efforts between the Reserve Bank and the government during 1994-1997 limited deficit financing from the Reserve Bank to the capped Ways and Means Advances (WMA). The Fiscal Responsibility and Budget Management (FRBM) Act of 2003 explicitly prohibited the Reserve Bank from participating in primary issuances of the government securities. Open market operations came to be designed to sterilise the impact on domestic money supply of foreign exchange interventions and/or to meet durable liquidity needs of the economy, rather than to fund deficits. While there have been relapses to old habits, overall these changes have left the task of government debt management with the Reserve Bank as primarily being one of auctioning government debt and helping it switch between securities or conduct buybacks, rather than of intricate involvement in fiscal planning, and more importantly, in its funding.

Furthermore, the repressive levels of Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR), which ensured substantial portions of bank deposits were channelled to the government or were readily available to debase in value through monetary expansion, have now been rationalised to be more or less in line with international prudential standards. For instance, in case of SLR, the level has been steadily reduced and the plan is to harmonise it with the Basel III Liquidity Coverage Ratio (LCR).

(3) **Exchange Rate Management:** In the Five Year Plans post-independence, prices including the exchange rate were assumed to be constant; however, since the true value of the Rupee fluctuated with market prices and macroeconomic conditions, the Sterling holdings had no choice but to take an undue hit. The underlying true value of the Rupee was also affected heavily – but not reflected in reality – by monetary policy and debt management operations that were implicitly supporting the ballooning of government deficits. The result of the fixed exchange rate regime in the midst of 'fiscal dominance' was that the Reserve Bank was essentially a silent spectator in the build-up to the inevitable exchange rate disequilibrium (though arguably this was true of much of the world at that time).

Since 1976, when the level of the Rupee moved to being a 'managed float' against a basket of currencies, and especially since 1993, the exchange rate has gradually evolved from being entirely a fixed rate to being market-determined for all practical purposes. The Reserve Bank deploys reserves management and macro-prudential controls on foreign capital flows to manage excessively large movements. With a flexible inflation-targeting mandate for interest-rate policy and funding of fiscal deficit no longer the objective of monetary operations, the desired exchange rate management rests with the Reserve Bank.

Ongoing Challenges in Maintaining Independence of the Reserve Bank of India

Few important pockets of persistent weakness, however, remain in maintaining independence of the Reserve Bank. Some of these areas were also identified in the 2017 Financial Sector Assessment Programme (FSAP) of India by the International Monetary Fund (IMF) and the World Bank (WB) as ways to strengthen

the independence of the Reserve Bank, an area in which the FSAP rates India as '*materially non-compliant*'.

- (1) **Regulation of Public Sector Banks:** One important limitation is that the Reserve Bank is statutorily limited in undertaking the full scope of actions against public sector banks (PSBs) – such as asset divestiture, replacement of management and Board, license revocation, and resolution actions such as mergers or sales — all of which it can and does deploy effectively in case of private banks. The significant implications of this limitation were highlighted in detail in Governor Patel's speech in March 2018, *Banking Regulatory Powers should be Ownership Neutral*. To reiterate from the FSAP (Para 39 in Summing up Responsibilities, Objectives, Powers, Independence, and Accountabilities, the Basel Core Principles Detailed Assessment Report):

'Legislation should be amended to enable the RBI to extend all the powers currently exercised over private sector banks to PSBs; in particular, regarding Board member dismissals, mergers and license revocation. ... It should also remove the option of an appeal to the government when the RBI revokes a license. If statutory changes are difficult, the RBI and the government should consider adopting a framework agreement whereby the government would acknowledge the RBI's full operational authority and independence in supervision and regulation, as they did recently for monetary policy.'

- (2) **The Reserve Bank's Balance-sheet Strength:** Having adequate reserves to bear any losses that arise from central bank

operations and having appropriate rules to allocate profits (including rules that govern the accumulation of capital and reserves) is considered an important part of central bank's independence from the government (see, for example, Moser-Boehm, 2006). A thorny ongoing issue on this front has been that of the rules for surplus transfer from the Reserve Bank to the government (Cogencis, 2018, 'Govt pegs RBI excess capital at 3.6 trln rupees, seeks it as surplus'), an issue that relates closely to the leading Argentine example in my introductory remarks. It has been covered deftly by Rakesh Mohan (2018) in the last of his three-part series of recent articles on the Reserve Bank, titled *Protect the RBI's balance-sheet*; therein, he elucidates why a central bank needs a strong balance-sheet to perform its full range of critical functions for the economy. I quote his main points below:

'First, ... The longer-term fiscal consequences would be the same if the government issued new securities today to fund the expenditure. [R]aiding the RBI's capital creates no new government revenue on a net basis over time, and only provides an illusion of free money in the short term.'

'Second, ... The use of such a transfer would erode whatever confidence that exists in the government's intention to practice fiscal prudence.'

'Third, ... In theory, a central bank can implement monetary policy appropriately with a wide range of capital levels, including levels below zero. In practice, the danger is that it may lose credibility with the financial markets and public at large, and may then be unable to attain its objective if it has

substantial losses and is seen as having insufficient capital.

Are fears with regard to possible central bank losses illusory? According to the Bank for International Settlements (BIS), 43 out of 108 central banks reported losses for at least one year between 1984 and 2005.

It is also argued by some that the government can always recapitalise a central bank when necessary. This is certainly true in principle but is practically difficult when the government itself suffers from fiscal pressures and maintains a relatively high debt-GDP ratio, as is the case in India. What is also important is the erosion of central bank independence both in reality and perhaps, even more importantly, in optics...

Once again, better sense has prevailed and the government has not raided the RBI's balance sheet.'

- (3) **Regulatory Scope:** A final issue is one of regulatory scope, the most recent case in point being the recommendation to bypass the central bank's powers over payment and settlement systems by appointing a separate payments regulator (also covered by Rakesh Mohan in his series, *ibid*). The Reserve Bank has published its dissent note against this recommendation on October 19, 2018.

Conclusion

Let me conclude with some notes of gratitude and dedication as well as some for further reflection.

Mr. Malegam has been a long-time adviser, friend and well-wisher of the Reserve Bank of India, as well as its former Board Member. He is someone I personally admire for his intellect, clarity of thinking and sagacity. I thank you, Mr. Malegam, for inviting me to deliver the A D Shroff Memorial Lecture for this year.

The Late Ardashir Darabshaw Shroff served as India's non-official delegate in 1944 at the United Nations 'Bretton Woods Conference' on post-war financial and monetary arrangements. One of his primary concerns was to seek a permanent seat on the executive board of the International Monetary Fund and the World Bank, which unfortunately did not materialise. To me, his most important contribution was the co-founding in 1954 of the Free Forum Enterprise think tank which through open dialogue presented a counterpoint to the socialist tendencies that were taking root in the country in the post-independence era government. Sucheta Dalal's biography, *A. D. Shroff - Titan of Finance and Free Enterprise* (2000), notes that George Woods, one of the most popular presidents of the World Bank, said of him:

'Nobody could accuse A. D. Shroff of hiding his opinions and in the later years of his life, very rarely were those opinions fashionable in India. Yet few patriots did more than he [did] to make friends for the Indian nation and to build confidence in that nation among those throughout the world whose business it is to provide capital for sound investment opportunities.'

In all humility, to emulate A. D. Shroff's freedom to criticize policy '*actuated by the single motive of trying to promote the good of my country*' (from his letter to Sir Osborne Smith, the first Governor of the Reserve Bank), I chose for today's occasion the theme of the importance of independent regulatory institutions, and in particular, that of a central bank that is independent from an over-arching reach of the state. This theme is certainly one of great sensitivity but I contend it is of even greater importance to our economic prospects. I earnestly hope that I have done some justice to his immortal legacy to independent economic discourse and policy-making.

In the process, I have attempted to convince you that we have made good progress in earning the Reserve Bank's independence, most notably in the

monetary policy framework (changes wherein, along with the Insolvency and Bankruptcy Code and the Goods and Services Tax, were considered as crucial structural reforms by Moody's in upgrading India's sovereign rating eleven months back). To secure greater financial and macroeconomic stability, these efforts need to be extended to effective independence for the Reserve Bank in its regulatory and supervisory powers over public sector banks, its balance-sheet strength, and its regulatory scope. Such endeavor would be a true *inclusive* reform for the Indian economy's future. Thankfully, it is only a matter of making the right choices, which I believe as a society we can with adequately thoughtful 'what-if' analysis; I have sketched a scenario, which several parts of the world are presently witnessing, of great risk to nations from undermining the independence of their central banks.

In his excellent biography, *Volcker: The Triumph of Persistence* (2012), my former NYU Stern colleague, Bill Silber, describes in vivid detail how in the 1980s, the then Federal Reserve Governor Paul Volcker adopted a curmudgeonly approach to setting interest rates to target inflation. Besides resisting any and all pressure to keep rates low, which would have effectively allowed cheap funding – in the short term – of President Reagan's expansionary deficit-based manifesto, Volcker engaged personally with the President to convey the perils of running high fiscal deficits right after double-digit inflation had just been tamed. In the end, Volcker won the day as wise counsel prevailed, deficits were reined in, and inflation tamed even further. I would argue that through Volcker's tough stance on inflation and candour on risks from government's fiscal plans, the institution of the Federal Reserve had in fact been President Reagan's true friend.

As many parts of the world today await greater government respect for central bank independence, independent central bankers will remain undeterred. Governments that do not respect central bank

independence will sooner or later incur the wrath of financial markets, ignite economic fire, and come to rue the day they undermined an important regulatory institution; their wiser counterparts who invest in central bank independence will enjoy lower costs of borrowing, the love of international investors, and longer life spans.

References

Acemoglu, Daron and James Robinson (2012) *Why Nations Fail: The Origins of Power, Prosperity and Poverty*, Crown Business.

Acharya, Viral V. (2015) *Financial Stability in the Broader Mandate for Central Banks: A Political Economy Perspective*, Working Paper #11, Hutchins Center on Fiscal & Monetary Policy at Brookings.

Acharya, Viral V., Stijn van Nieuwerburgh, Matthew Richardson and Lawrence White (2011) *Guaranteed to Fail: Fannie Mae, Freddie Mac and the Debacle of Mortgage Finance*, Princeton University Press.

Acharya, Viral V. and Raghuram G. Rajan (2013) *Sovereign Debt, Government Myopia and the Financial Sector*, Review of Financial Studies, 26(6), 1526-1560.

Buiter, Willem and Anne C. Sibert (2000) *Targets, Instruments and Institutional Arrangements for an Effective Monetary Policy*, Seventh L.K. Jha Memorial Lecture, delivered by Willem Buiter at the Reserve Bank of India, Mumbai, October 16, 2000.

Cogencis (2018) *Govt pegs RBI excess capital at 3.6 trillion rupees, seeks it as surplus*, 3 August, 2018.

Dalal, Sucheta. (2000) *A. D. Shroff - Titan of Finance and Free Enterprise*, Penguin Books India.

Eichengreen, Barry (2018) *Investors have the power to tame Erdogan and Trump: Politicians should think carefully before seeking to influence central banks*, Financial Times, August 19, 2018.

Friedman, Milton (1970) *The Counter-revolution in Monetary Theory*, First Wincott Memorial Lecture, Transatlantic Arts.

Fukuyama, Francis (2011) *The Origins of Political Order: From Pre-human Times to the French Revolution*, Farrar, Straus and Giroux.

Khatkhate, Deena (2005) *Reserve Bank of India: A Study in the Separation and Attrition of Powers*, in *Public Institutions in India: Performance and Design*, edited by Devesh Kapur and Pratap Bhanu Mehta, Oxford University Press.

Kydland, Finn E. and Edward C. Prescott (1977) *Rules Rather than Discretion: The Inconsistency of Optimal Plans*, Journal of Political Economy, 85(3), 473-492.

Mohan, Rakesh (2018) *Preserving the independence of the RBI (October 3, 2018); Responsibility fulfilled (October 4, 2018); Protect the RBI's balance-sheet (October 5, 2018)*, Business Standard.

Moser-Boehm, Paul. (2006) *The relationship between the central bank and the government*, Bank for International Settlements.

Patel, Urjit R. (2018) *Banking Regulatory Powers Should be Ownership Neutral*, Inaugural Lecture – Center for Law & Economics; Center for Banking & Financial Laws, Gujarat National Law University.

Rangarajan, C. (1993) *Autonomy of Central Banks*, Tenth M. G. Kutty Memorial Lecture at Calcutta, September 17, 1993.

Reddy, Y. V. (2001) *Autonomy of the Central Bank: Changing Contours in India*, speech delivered at Indian Institute of Management, Indore.

Reddy, Y. V. (2007) *Evolving Role of the Reserve Bank of India: Recent Developments*, speech delivered on the Foundation Day of the Institute of Development Studies, Jaipur, June 30, 2007.

Sargent, Thomas J. (1982) *The Ends of Four Big Inflations*, in Robert E. Hall, ed., *Inflation: Causes and Effects*, University of Chicago Press.

Silber, William (2012) *Volcker: The Triumph of Persistence*, Bloomsbury.

Some Thoughts on Credit Risk and Bank Capital Regulation *

N.S. Vishwanathan

It is a privilege to be welcomed within the precincts of one of the premier management institutes of the country and, more importantly, to get an opportunity to engage with some of the promising young minds and aspiring future leaders. All of you are going to enter the job stream at a very interesting point in our country's economic history. We are all meeting today in the wake of a number of landmark economic reforms, of which I would like to touch upon two in particular– the Insolvency and Bankruptcy Code (IBC), 2016 and the RBI circular dated February 12, 2018 on the *Revised Framework for Resolution of Stressed Assets*. I will attempt to give you a regulator's perspective on the above reforms, and about banking industry in general while debunking a few fallacies. Using this background, I will also segue into another contentious issue of adequacy or otherwise of prudential capital for banks, particularly for credit risk.

Let us start with the fundamentals. Banks bring together the liquidity surplus agents in an economy with the liquidity deficit agents by establishing an intermediation channel, thus aiding the flow of savings in an economy towards investments. The banking licence issued by the regulator allows these institutions to raise uncollateralised funds from the public in the form of demand deposits. It is primarily from these deposits that banks give out loans to the borrowers. Thus, it is not that banks have a huge coffer like that of Uncle Scrooge, holding their own money, from which they make loans, but it is the funds that they raise through deposits that are used for making loans.

* N.S. Vishwanathan, Deputy Governor, Reserve Bank of India, Speech delivered at XLRI, Jamshedpur on October 29, 2018.

Do We Need Banks?

The above description, though, does not immediately make it clear why we need banks to do this intermediation function – why the savers cannot directly lend to the borrowers, and why we need an intermediation infrastructure. The answer is that the information asymmetry inherent in such relationships makes direct monitoring by individual savers of borrowers both costly and inefficient. In most cases, the borrowers have more knowledge of their ability to pay than the lender. Through specialised skills in project appraisals and risk monitoring, banks are expected to contain default by a borrower and thus play the useful role of delegated monitors (Diamond, 1984) in an economy, at substantially lower cost than direct monitoring by agents.

This role of delegated monitors is codified by banks through inclusion of suitable covenants in a loan contract. This formalisation has two dimensions – well drafted covenants that protect the rights of banks if the borrower fails to perform as expected, and proper enforcement of covenants in the event of a deviation in the performance of the borrower from the expectations. A well-drafted covenant is to be more of a deterrent in normal times, as it serves to remind the borrower about the consequences of not honouring the loan contract. Such a contract would be the result of strong appraisal and monitoring systems that are put in place by a lender. The appraisal would properly price the risk the lender is taking upon by extending a loan to a borrower. It would also involve proper understanding of the sector to which the loan is extended, including the vagaries and various risks that could potentially affect the projected cash flows of the venture that is being financed. A good loan contract would account for all this and more, so that it serves as a blueprint for the bank as to how to react in a given scenario during the lifetime of the loan.

However, when the monitoring by banks or action taken by them on covenant breaches are inadequate,

the deterrence effect is weakened leading to further covenant breaks. Banks need to be exacting in their role as monitors of loans. This in turn would force the other actors to perform their roles diligently. Say, for example, if banks go easy on a particular borrower because the borrower has been affected by delays in receipt of his claims from his client, the delays at the level of the client would never get addressed, and in fact, may get accepted as the norm. When banks perform their monitoring roles properly, the borrower would be forced to take up his case with his client for timely realisation of his claims. Banks are not supposed to be shock-absorbers of first resort of the difficulties faced by their borrowers as banks do not have the luxury of delaying payments to their depositors. Of course, a bank can renegotiate terms of a loan if circumstances warrant, but this must be for a good reason and the bank should recognise the consequent risks. This renegotiation of terms should be an exception rather than the rule, as resorting to it often would endanger the safety of deposits, dent a bank's ability to lend further and imperil its existence as an intermediating entity.

Thus, the next time we hear about a bank making efforts to recover loans from borrowers, we should all note to remember that it is essentially trying to get back the depositors' money. In this context, the most important objective of the Revised Framework for Resolution of Stressed Assets is to alter the balance of power in favour of creditors. For long, the balance of power in our country was in favour of debtors, especially for debtors.

Debtor vs Creditor: The Change in Roles

This changing debtor-creditor equation disturbs the status quo and it is only natural that it is facing resistance. The earlier debtor-friendly environment made it possible for the defaulting debtors to secure moratoriums and force write-downs on debt repayment, while retaining management control over the borrowing units or thwart banks efforts to

realise their dues by indulging in serial litigations. The out-of-court restructuring mechanisms too suffered high failure rates resulting in the borrowing entities continuing to indulge in repeated defaults, being confident that the balance of power remained with them and the ability of banks to discipline errant borrowers was weak¹.

The debtor friendly environment had its effect on banks' business preference, while also partly contributing to the ever-increasing stressed assets in the banking system. Banks' ability and/or willingness to lend to persons or entities that needed credit were hampered. The Bankruptcy Law Reforms Committee (2015) has observed and I quote:

'When creditors know that they have weak rights resulting in a low recovery rate, they are averse to lend. Hence, lending in India is concentrated in a few large companies that have a low probability of failure. Further, secured credit dominates, as creditors rights are partially present only in this case. Lenders have an emphasis on secured credit. In this case, credit analysis is relatively easy: It only requires taking a view on the market value of the collateral. As a consequence, credit analysis as a sophisticated analysis of the business prospects of a firm has shrivelled.'

In India, before the enactment of the IBC, the Reserve Bank as banking regulator had to design resolution mechanisms that tried to emulate the desirable features of a bankruptcy law as identified in the literature. However, in the absence of a bankruptcy law in the country, those schemes could not result in meaningful resolution of the stressed loans. This resulted in significant mismatches between the book values of loans carried by banks and the inherent economic value of those loans. In this context, the enactment of the IBC is a watershed event, which has completely changed the legal framework governing

¹ Academic studies (Chang, Tom, and Antoinette Schoar, 2016) show that pro-debtor bias in the bankruptcy process results in lower success rates in sustainable revival of distressed firms than pro-creditor bias.

the insolvency regime in the country. The enactment of IBC also enabled the Reserve Bank to come out with a revised framework for resolution of stressed assets. These initiatives by the Government of India and the Reserve Bank are being challenged by the defaulting borrowers in various judicial fora. The Hon'ble Supreme Court of India in the matter of Innoventive Industries Ltd. vs ICICI Bank Ltd. (2017), observed that:

'...we thought it necessary to deliver a detailed judgment so that all Courts and Tribunals may take notice of a paradigm shift in the law. Entrenched managements are no longer allowed to continue in management if they cannot pay their debts.'

As observed by the Hon'ble Supreme Court of India, the judicial system of the country has internalised the paradigm shift in the law and defaulting debtors' efforts to stymie the insolvency regime with frivolous litigation have not met with success so far.

In this context, it needs to be recognised that when banks take recourse to legal remedies available to them when a borrower defaults on his debt servicing, including that of security enforcement, they are essentially trying to recover the depositors' money from a defaulting borrower, whatever be the reasons for default. However, the defaulting borrowers portray such an action by banks as a case of a 'ruthless big bank' taking over the assets of a 'hapless borrower'. This is the kind of portrayal used even by the large corporates. Here, one needs to distinguish between a private moneylender lending his own money for making a profit and a bank, which to a large extent uses depositors' money (and tax payers' money, in case of public sector banks). A correct portrayal of the situation would be: public interest (*i.e.*, depositors + taxpayers) vs borrowers' interest.

Fallacy of 'Genuine' Defaulters

One argument that we hear quite often is that there are different reasons for default, and the regulations

should treat them differently based on the reasons which lead to the default. The proponents of this line of thought argue that where the borrowers are affected by external factors beyond their control, they should be treated as 'genuine' defaulters and some leniency in prudential norms is warranted. This is a fallacy, even though it is important to appreciate that some defaults are inevitable part of lending business. There are two issues here: recognition and resolution. The recognition of default or accounting for deterioration in the quality of asset should be *independent* of the reasons for such default or deterioration. Whereas, it is the resolution plan which should be a function of ability and willingness of the borrower to honour his obligations. Where a borrower has temporarily lost his ability to pay due to circumstances beyond his control, a quick and efficient restructuring of the debt either outside the courts or within the insolvency framework would be in order. In case of wilful or strategic defaulters, *i.e.*, borrowers with the ability but no willingness to pay up their debt, change in ownership accompanied by punitive action against the defaulting management is the way to go. Finally, if the business is beyond revival, faster liquidation would help in reallocation of resources to productive use. This is what the Revised Framework for Resolution of Stressed Assets seeks to achieve. The following matrix illustrates this approach:

Type of borrower	Has ability to pay	Unable to pay
Willing to pay	No action	Restructuring or ad-hoc funding, failing which, change in ownership or liquidation
Unwilling to pay	Change in ownership and punitive action against the defaulting management	Restructuring with change in ownership or liquidation

Another fallacy is the claim by the managements of defaulting borrowers that the restructuring plan proposed by them will result in 'zero haircut' for banks; whereas, if banks file insolvency application, new investor would be willing to take over the

defaulting entities only with 'huge haircuts' on debt. What one needs to understand is that while the payments offered by the existing management are usually spread over a long period, the new investors mostly come up with upfront cash payments. The choice before banks is: 'illusory future payments' vs 'upfront real cash'. Banks need to arrive at the present value of 'illusory future payments' by discounting it for time value of money and more importantly for the uncertainty in receiving the payments taking into account the existing management's past records.

A related issue is the liability of existing promoters. The share of creditors in a successful project is limited to the agreed upon cash flows as per the loan contract, as against the equity holders who enjoy unlimited upside in a successful project. Further, if a project fails, the equity holders are protected by their limited liability even if the creditors are set to lose the entire amount lent to the borrower in the absence of strong creditor rights, given the capital structure of most of the projects. At this juncture, it would be useful to clarify that limited liability, even though is enshrined in modern corporate law as a right, should rather be viewed as a privilege of the shareholders. While the argument for limited liability structure is that it promotes entrepreneurship and innovation, an investment in a project is always a case of a risky bet that is calculated. For the shareholders to enjoy limited liability in a venture that has potential negative externalities to the society in the form of defaults and its further ramifications, someone has to bear the costs when such externalities do materialise.

In almost all such cases, the society ends up underwriting the limited liability enjoyed by the shareholders through bearing the cost of default through lost jobs, concessions granted by the state, and above all, the haircuts taken by banks, which are in fact potential losses of depositors'/taxpayers' money. Societies allow companies in default to reorganise themselves and attempt a resolution by allowing

to renegotiate and rewrite private contracts under a formal bankruptcy mechanism. This is another reason why the equity holders are mostly wiped out in the bankruptcy of a corporate borrower since they already enjoyed the benefits of limited liability.

While limited liability concept is fundamental for encouraging entrepreneurship and innovation, piercing of corporate veil *i.e.*, disregarding the limited liability and making shareholders personally liable, is not uncommon now-a-days considering the negative externalities created by defaulting firms. Macey and Mitts (2014) have constructed a rational framework for conceptualizing the circumstances in which it is appropriate and consistent with sound public policy to pierce the corporate veil. Their hypothesis is that the corporate veil will be pierced if, and only if, doing so is required for any one of the following three reasons: (1) to achieve consistency and compliance with the goals of a clear and specific extant regulatory or statutory scheme such as environmental law or unemployment law; (2) when there is evidence of fraud or misrepresentation by companies or individuals trying to obtain credit (and particularly where such misrepresentations lead a creditor erroneously to think that an individual shareholder of a company is guaranteeing what ostensibly is corporate indebtedness); (3) when respecting the corporate form facilitates or enables favouritism among claimants to the cash flows of a firm and, thus, is inconsistent with the well-established bankruptcy law value of achieving the resolution of a bankrupt's estate that conforms both to contract law principles and to the priorities among claimants established by state law. The Hon'ble Supreme Court of India has also observed in its recent judgement in *ArcelorMittal India Private Limited versus Satish Kumar Gupta & Others* (2018), as under:

'...where a statute itself lifts the corporate veil, or where protection of public interest is of paramount importance, or where a company has been formed to evade obligations imposed by the law, the court will

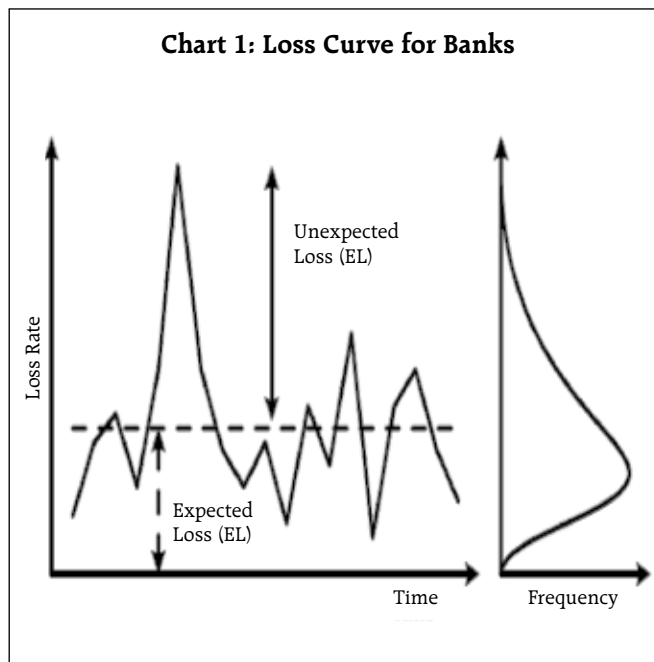
disregard the corporate veil. Further, this principle is applied even to group companies, so that one is able to look at the economic entity of the group as a whole.'

With this background I would like to move to the second but related subject of my talk, prudential bank capital regulations. As I will explain later, the credit recovery ecosystem has a bearing on prudential capital requirements, given that credit risk, in the Indian context, like in many other jurisdictions, is the major risk on the balance sheet of banks.

Basel Capital Norms – The Prudential Imperative

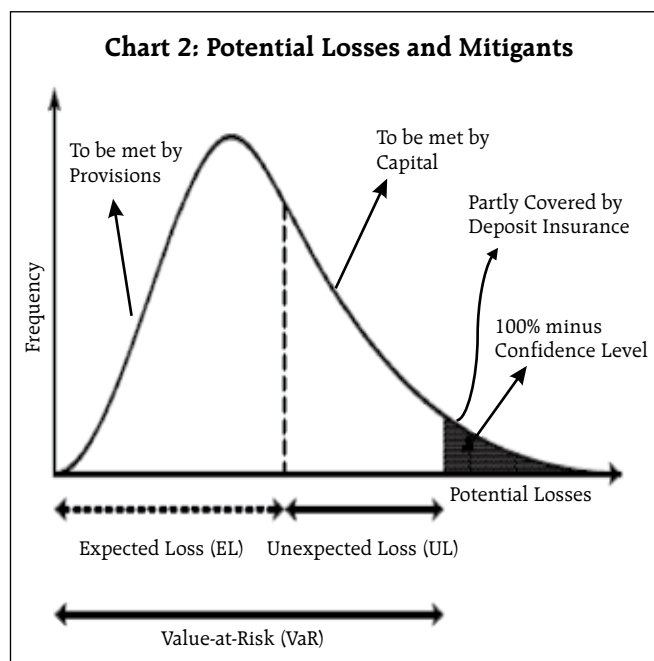
By nature, banks are susceptible to risks, viz., credit risk, market risk, liquidity risk, etc. A 'run' on the bank is an extreme case of liquidity risk. Banks try to mitigate the liquidity risk by holding liquid assets, which can easily be liquidated in times of need to honour the payment commitments to its creditors, majority of whom are depositors. Thus, the mitigants for liquidity risk are stable funding and holding liquid assets. While banks need liquid assets to mitigate liquidity risk, they need capital to avert solvency risk that the economic value of assets becomes lower than the promised debt obligations. If banks don't have adequate capital, losses erode into deposits. Banks have to maintain adequate capital to ensure that the probability of deposits being eroded is close to zero.

Banks are likely to face losses on their assets as it cannot be expected that all the loans will be repaid in full. There could be losses from other parts of the operations as well. The losses can be either expected or unexpected. Expected losses on account of credit risk can be reasonably estimated from historical data regarding a particular class of borrowers (e.g., rating category) or sector to which loans are made. However, the future can never be predicted perfectly – the actual losses incurred may be higher than the expected losses. This may be because of various reasons – for example, a systemic event where there are correlated defaults in a particular sector. This leads to unexpected losses.



The following figure (Chart 1) explains the loss curve of a bank:

The mitigants for expected losses are the provisions that are to be made from the current earnings, and for the unexpected losses (i.e., difference between peak loss for a given confidence level and average loss), it is the level of capital maintained by the bank (Chart 2). There are potential losses beyond



unexpected loss, which are not covered by any buffer as it would be too costly to hold buffers to protect from such losses.

While it can be argued that the quantum of capital to be held by banks for unexpected loss should be left to the market forces, any failure of the market forces has significant negative externalities, more particularly in the form of cost incurred through loss of deposits or by taxpayers for recapitalising, say a government owned bank. This calls for entry barriers as well as prudential regulation of activities of a bank.

One of the important and widely adopted prudential regulations is capital adequacy norms. Internationally, prior to the introduction of Basel I norms in 1988, the most common approach was to lay down minimum capital requirements for banks in the respective banking legislations and determine the relative strength of capital position of a bank by ratios such as capital to deposit ratio, or its other variants for measuring the level of leverage. However, there were vast variations in the method and more importantly the risk sensitiveness of capital regulations across countries, rendering comparability difficult.

Basel rules are an internationally accepted regulatory framework providing minimum standards to be met by banks. Since 1988, the Basel framework has evolved responding to various developments. While the concept of regulatory capital that is aligned to risks in the balance sheet of a bank was enunciated through the capital to risk weighted assets ratio (CRAR) under Basel I, the Basel II framework, introduced in 2004, brought about better determination of risks by introducing greater granulation of risks of various categories of assets of a bank.

Basel II norms hinged on three pillars – capital adequacy, supervisory review, and market discipline. In particular, capital charges were to be made for credit risk, market risk and operational risk that banks faced. The main incentives for adoption of Basel II were (a) it was more risk sensitive; (b) it

recognised developments in risk measurement and risk management techniques employed in the banking sector and accommodates them within the framework; and (c) it aligned regulatory capital closer to economic capital. These elements of Basel II took the regulatory framework closer to the business models employed in several large banks. In Basel II framework, banks' capital requirements were more closely aligned with the underlying risks in the balance sheet.

However, the weaknesses of Basel II standards were exposed during the global financial crisis of 2008-09 which forced a rethink of the regulatory approach towards capital adequacy requirements. In September 2010, the Group of Governors and Heads of Supervision (GHOS) announced higher global minimum capital standards for commercial banks. This followed an agreement reached in July 2010 regarding the overall design of the capital and liquidity reform package, now referred to as 'Basel III'. The enhanced Basel framework revises and strengthens the three pillars established by Basel II and extends it in several areas. Most of the reforms are being phased in between 2013 and 2019. The important elements of the framework are the following:

- i. stricter requirements for the quality and quantity of regulatory capital, in particular reinforcing the central role of common equity;
- ii. an additional layer of common equity - the capital conservation buffer - that, when breached, restricts discretionary pay-outs to help meet the minimum common equity requirement;
- iii. a countercyclical capital buffer, which places restrictions on participation by banks in system-wide credit booms with the aim of reducing their losses in credit busts;
- iv. a leverage ratio - a minimum amount of loss-absorbing capital relative to all of a bank's

assets and off-balance sheet exposures regardless of risk weighting;

- v. liquidity requirements - a minimum liquidity ratio, the Liquidity Coverage Ratio (LCR), intended to provide enough cash to cover funding needs over a 30-day period of stress; and a longer-term ratio, the Net Stable Funding Ratio (NSFR), intended to address maturity mismatches over the entire balance sheet; and
- vi. additional requirements for systemically important banks, including additional loss absorbency and strengthened arrangements for cross-border supervision and resolution.

In India, Basel III capital regulation has been implemented from April 1, 2013 onwards in phases and it will be fully implemented by March 31, 2019. The latest round of reforms published by the Basel Committee in December 2017 have implementation timelines stretching up to 2022.

Having understood the background for Basel regulations, let us go back to the issue of mitigating expected and unexpected losses in the credit portfolio, which, among other reasons, arise due to loans turning bad, leading to non-recovery or under-recovery of the loan. Once a loan is recognised as a non performing asset (NPA), the prudent action is to start recognising the expected losses from that loan upfront so that when the actual losses do materialise, the impact on the profit and loss statement of the bank is spread over a period of time. Since expected losses can be reasonably estimated based on past experience, the provisions to cover the losses are made from the current earnings of the bank. Provisions can be thought of as an expense from the income of a bank to mark a non-performing loan to its economic value in the books of banks. Sometimes, the actual realisation from a NPA could be higher than its marked down value, in which case banks write back the excess provision as

profits in the accounting year in which the recovery takes place. Provisions can, as such, be also thought of as prudential devices that smoothen the impact of bad loans on profit and loss of banks, and not as a forced expense mandated by the regulator. The basic prudent behaviour always demands that banks should never be under provided.

Ideally, banks should be able to test the loans in their books for expected losses and make provisions for such losses without any regulatory intervention. However, in the absence of robust models built by our banks that would serve this purpose, the Reserve Bank has prescribed minimum mandated levels of provisions that are linked to the age of a NPA. Since the provision methodology should be tailored to individual banks, and general regulations cannot do that, the regulatory expectation is that the minimum provisions mandated would serve as a guiding floor and the bank managements, using their insider knowledge about their assets, would make adequate provisions. However, unfortunately, banks in India remain one of the most under-provisioned ones, though there has been an improvement in this regard in the last few quarters.

If the provisions required to be maintained by a bank exceed its earnings before provision, it is bound to affect the equity of the bank. This leads to one of the poorly understood aspects of banking regulation – capital norms for banks in general, and Basel norms in particular. One of the widely heard complaints in this regard is that the capital requirements for banks are unnecessarily high. In India, this relates to the CRAR prescribed by Reserve Bank being 9 percent as opposed to 8 percent required by Basel norms. To understand the response to this question, let us try to understand why capital is needed in the first place.

Conceptually, the inherent unpredictable nature of unexpected losses calls for a buffer, and that is the function served by the capital maintained by the

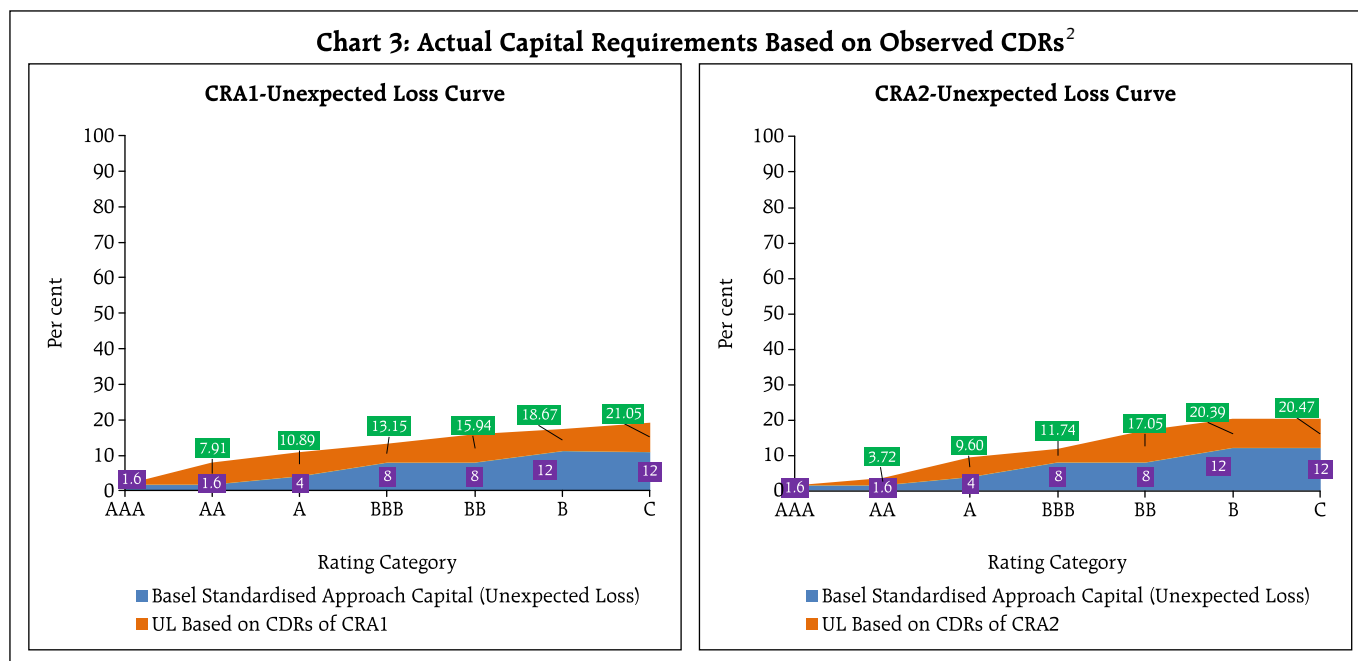
bank. Before we go any further, capital should be understood as the 'own funds' used to create assets by banks, as against borrowed funds like deposits. The capital maintained by the bank merely shows the proportion of own funds brought in by the bank in the total funds deployed towards creating assets. There is a misconception that capital is a pile of money stacked away as some sort of 'rainy-day fund', and that the economy is deprived of that pile of money. The reality couldn't be farther from the truth – the capital maintained by banks would have already been deployed on its balance sheet towards creating assets, including loans.

Prudential capital regulations aim to enable banks to sustain unexpected losses without defaulting on its obligations, especially deposits, by maintaining adequate levels of bank capital. Higher capital levels in banks also have a stabilising effect on a country's macro economy. Further, higher levels of capital increases the skin in the game for shareholders, thus potentially leading to better credit appraisal and screening. Raising capital does involve costs – there is no free lunch – but the costs to the economy are offset by the savings made in the form of potential losses avoided in averted banking crises. As the equity component in a bank goes up, the leverage goes down, potentially making the bank safer, thus leading the investors in the bank equity to demand lower returns on equity, and the depositors too may be willing to accept a lower return in view of greater safety of their funds. The holy-grail for banking regulators is to find the sweet spot for capital prescriptions for banks where the benefits are equal to or slightly outweigh the costs involved.

Multiple recent studies (Cline, 2017) trying to derive the optimal Common Equity Tier 1 capital (CET 1) ratio for banks have arrived at figures on opposite ends of the spectrum – Dagher, Dell'Araccia, Laeven, Ratnovski, and Tong (2016) estimate the optimal CET 1 ratio of 9-17 per cent of the risk weighted assets,

Admati and Hellwig (2013) estimates optimal CET1 ratio to be 36-53 per cent of risk weighted assets. The median estimate arrived from these and other similar studies is about 13-14 per cent of risk weighted assets of banks. In contrast to the above estimates, Basel III norms specify minimum CET 1 requirements of 4.5 per cent of risk weighted assets. Thus, it can be seen that Basel III prescription is much lower than the median estimates by various researchers and should only be considered as a floor.

In India, we have prescribed overall capital requirements of 9 per cent of risk weighted assets, with the common equity tier 1 capital of 5.5 percent as against 8 percent and 4.5 percent, respectively, required under the Basel norms. As I said earlier, the regulatory capital is meant to serve as a buffer against unexpected loss. The cumulative unexpected loss in the assets of a bank will be an aggregation of the past loss behaviour of various sub-portfolios of the asset portfolio. The sub-portfolios can be built on the basis of riskiness of the assets. So, one can say government securities can form one sub-portfolio with a zero loss probability and build other sub-portfolios of different riskiness. The latter is normally classified on the basis of credit rating because an unexpected loss behaviour can be assigned to portfolios of similar rating. The risk-weights for each sub-portfolio are assigned based on the unexpected loss behaviour, normally based on their cumulative default rates. It thus goes without saying that the risk-weight assigned to a portfolio carrying a particular rating should be a function of the observed default behaviour of that portfolio in a jurisdiction. The higher CRAR of 9 percent prescribed by RBI basically reflects this difference. Under Basel III norms, unexpected losses are a function of the cumulative default rates (CDR) observed in the credit ratings provided by the credit rating agencies (CRAs). The CDR is nothing but the probability of a non-default rating assigned by a CRA turning into a default rating within a certain period of time.

Chart 3: Actual Capital Requirements Based on Observed CDRs²

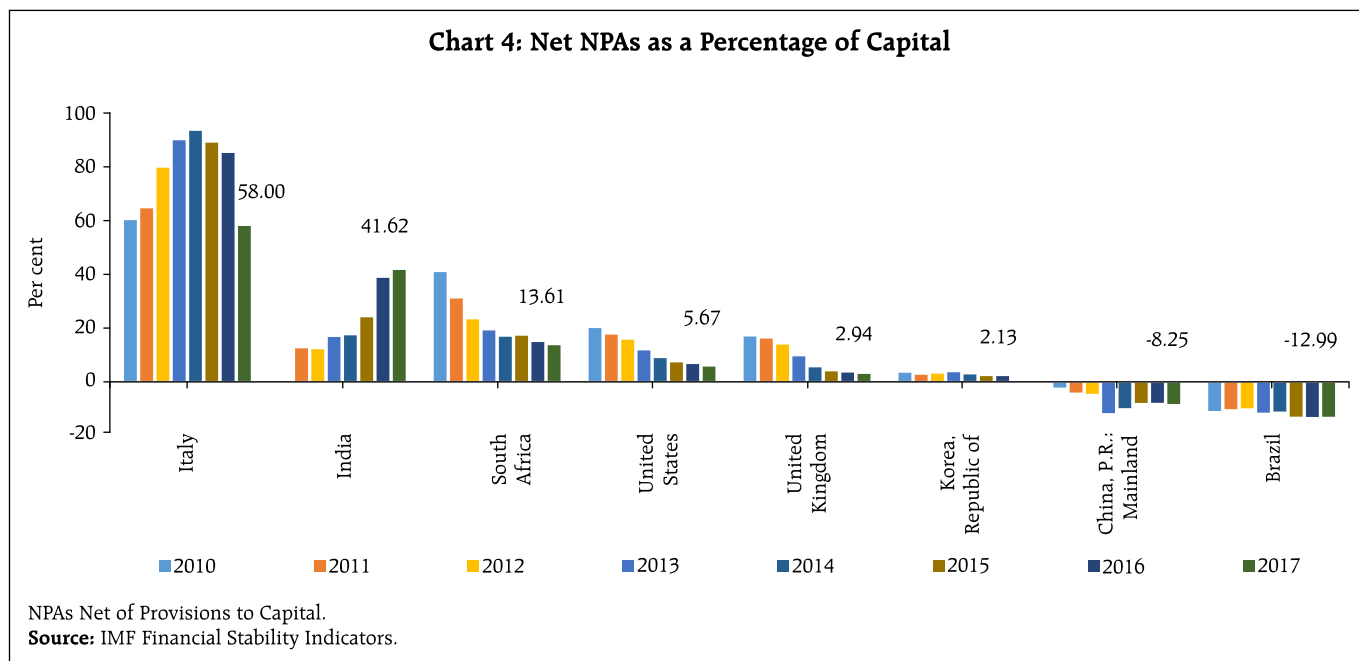
Based on internationally observed CDRs and recovery rates, Basel norms have prescribed risk weights for various credit exposures. However, the CDRs and the loss given default observed in India are much higher than that observed internationally, though there are signs of improvement in these parameters after the enactment of the IBC and RBI's Revised Framework. Chart 3 shows the Basel capital requirement for various rating categories *vis-à-vis* the unexpected loss computed using the observed CDRs of a portfolio of loans rated by Indian CRAs.

It would be evident that with this kind of default behaviour, applying the Basel specified risk weights would understate the true riskiness in the loan assets carried on the books of Indian banks. This could be overcome by two ways: (i) by keeping the minimum capital requirement at 8 per cent, but recalibrating the Basel specified risk weights for each type of credit exposure in accordance with the observed CDRs in India; (ii) by using the Basel specified risk weights, but prescribing a higher minimum capital requirement.

² Based on the CDRs published by the credit rating agencies and methodology adopted from the BCBS Discussion paper on 'Regulatory treatment of accounting provisions' (October 2016).

We adopted the second approach and prescribed minimum capital requirement of 9 per cent while largely retaining the Basel specified risk weights. In view of the above explanation it is clear that the suggestion by some that our capital requirements are more onerous than international standards is not correct at all. As the need for repeated recapitalisation has proved, banks in India need to aspire to have higher capital levels.

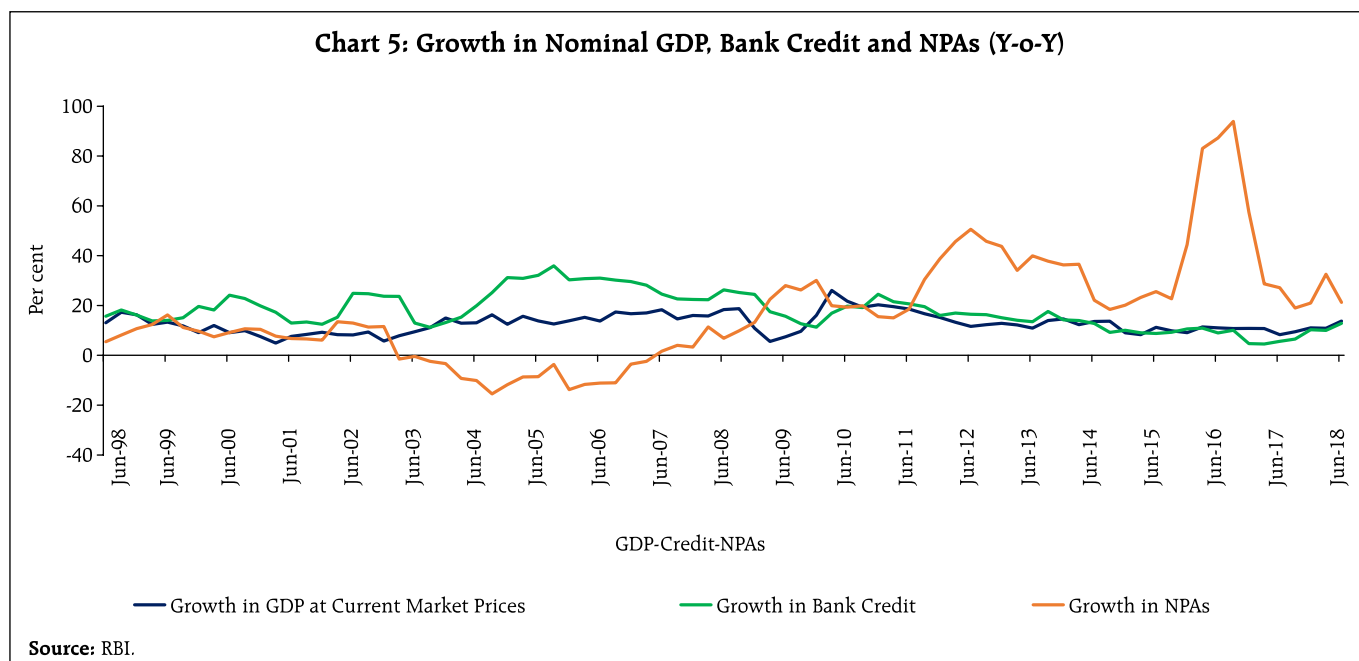
Moreover, the current levels of provisions maintained by banks may not be enough to cover the expected losses, and, hence, adequate buffers have to be built into the capital maintained to absorb the expected losses which have not been provided for, if and when they materialise. Chart 4 demonstrates that the Indian banking system has a high proportion of un-provided NPAs *vis-à-vis* the capital levels. As I said, there are signs of improvement in the default rates and recovery rates after the IBC and RBI's Revised Framework, which may result in lower unexpected losses for banks in the future. However, a recalibration of risk-weights or minimum capital requirements would need to wait till these trends are firmly entrenched in the economy. Frontloading of



regulatory relaxations before the structural reforms fully set-in could be detrimental to the interests of the economy.

One of the arguments for seeking a lower CRAR is that higher capital requirement leads to lower credit growth. While mathematically this may be correct, there are two important facts to underscore here. Firstly, such suggestions are being made when

the credit growth in the economy is in line with the nominal GDP growth (see Chart 5). Bank credit has grown 14.4 percent year-on-year (y-o-y) as at fortnight ended October 12, 2018. It may be mentioned as an aside that bank credit to NBFC sector, where there is perception of inadequate bank credit flow, recorded a growth of 17.1 percent from March 31, 2018 to September 30, 2018 and a y-o-y growth of 48.30



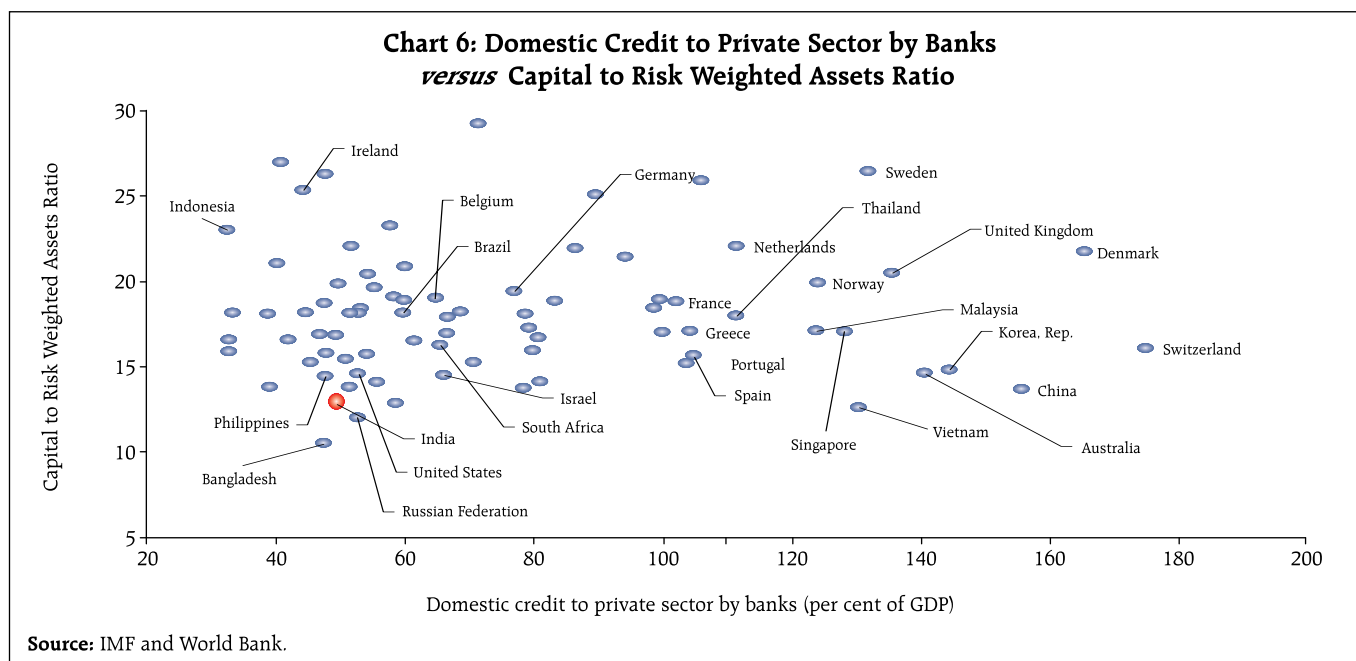
percent as on September 30, 2018 on the back of a strong base. Getting back to Chart, it may be noticed that in the past, high levels of credit growth due to 'supply push' have resulted in high corporate leverage and consequent NPAs in the banking system.

Secondly, to make sure that the banking system is resilient enough to support higher credit growth going forward, it should have higher capital levels. Chart 6 below shows that countries which have high bank credit to GDP ratio also have higher levels of bank capital.

Let me also clarify another oft repeated view that public sector banks need not be subject to prudential capital regulations. The argument is that the sovereign ownership of these banks makes them *de facto* risk free and impervious to bank runs. In India, almost all commercial banks, except for the payment banks and small finance banks, are actively involved in providing credit facilities to enable international trade/investment of Indian corporates in the form of documentary credit, stand-by letters of credit, etc. Acceptance and confirmation by the foreign banks of such guarantees issued by the Indian banks is based

on the soundness of Indian banks as perceived by the foreign banks. Conformity to an internationally accepted regulatory regime provides required credibility to the Indian banking system, which helps the Indian corporates to access international markets (both financial and real) on the strength of the support provided by Indian banks. Many Indian banks also access international markets for their own capital and funding requirements. The correspondent banking relationships of the Indian banks also depends upon their financial soundness. Any slackening of the prudential norms may result in a reset of their credibility/standing in the international markets. Such a reset could increase the cost and ease of doing business for their clientele and their clientele may need to migrate to other banks which are compliant with Basel standards. Moreover, differential prudential regulation for banks based on ownership structure, when they operate in the same market, would be anti-competitive and could create systemic imbalances, which obviously are not desirable outcomes.

Let me conclude. A strong and stable banking system is essential for the development of the economy.



This strength should be real and inherent. The real strength will come from recognising weaknesses in the balance sheet and making provisions for them rather than pretending to believe that the balance sheet is strong. Everything that the Government of India and the Reserve Bank of India have been doing in the recent past is to provide India with a clean banking system. This is a work in progress, which has started yielding results. As our insolvency and bankruptcy regime matures, many aspects of debt recovery and asset quality in the Indian financial system will match the global standards. Then our probability of default and loss given default will also come down to global levels. Hopefully, those days are nearer than we think. Till then, we must guard against any push for dilution of standards in the name of aligning them with international benchmarks because that will be cherry-picking and will result in our banks being strong in a make-believe sense and not in reality. It is by resisting such temptations, I believe, we will build a financial system that is lot stronger than today, with which you will be proud to be associated as future entrepreneurs, depositors, investors, managers and any other capacity that you would have an occasion to interact.

With best wishes and Diwali Greetings.

References

- Admati, Anat, and Martin Hellwig (2013), *The Bankers' New Clothes: What's Wrong with Banking and What to Do About It*, Princeton University Press.
- Bankruptcy Law Reforms Committee (2015), *The Report of the Bankruptcy Law Reforms Committee, Volume I: Rationale and Design*, (November 2015)
- Basel Committee on Banking Supervision (2016), 'Regulatory treatment of accounting provisions', *BCBS Discussion Paper* (October 2016)
- Chang, Tom, and Antoinette Schoar (2016), 'The Effect of Judicial Bias in Chapter 11 Reorganisation', *mimeo* (October 2016)
- Cline, William R. (2017), *The Right Balance for Banks: Theory and Evidence on Optimal Capital Requirement*, Policy Analyses in International Economics 107 (June 2017), Peterson Institute for International Economics
- Dagher, Jihad, Giovanni Dell'Ariccia, Luc Laeven, Lev Ratnovski, and Hui Tong (2016), 'Benefits and Costs of Bank Capital', *IMF Staff Discussion Note 16* (February 2016).
- Diamond, Douglas W. (1984), 'Financial Intermediation and Delegated Monitoring', *The Review of Economic Studies*, Vol. 51, No. 3 (July 1984)
- Farag, Marc, Damian Harland, and Dan Nixon (2013 Q3), 'Bank capital and liquidity', *Bank of England Quarterly Bulletin*.
- Macey, Jonathan, and Joshua Mitts (2014), 'Finding Order in the Morass: The Three Real Justifications for Piercing the Corporate Veil', 100 *Cornell L. Rev.* 99
- McLeay, Michael, Amar Radia, and Ryland Thomas (2014 Q1), 'Money creation in the modern economy', *Bank of England Quarterly Bulletin*.

ARTICLES

Globalising People: India's Inward Remittances

Regional Inflation Dynamics in India

*Globalising People: India's Inward Remittances**

Drawing on the fourth round of the survey of authorised dealers on India's inward remittances in 2016-17¹, this article finds that business tie-ups with various exchange houses have facilitated cheaper transmission of remittances from the Gulf Cooperation Council countries relative to those from other countries. Kerala, Maharashtra and Karnataka are the major recipient States. Money transfer operators maintain an edge over banks in terms of cost for cash-based low value transactions.

Introduction

Remittances play a crucial role in the life and ethos of a wide swathe of developing economies, with significant welfare implications. In 2017, low and middle income economies received US\$466 billion as remittances (World Bank, 2018). For several low income countries, these flows constitute more than half of GDP. Remittances are a more stable source of external financing than cyclical private debt and equity flows and unlike the latter, involve no obligation to repay or service - contractual or otherwise. This feature of these flows assumes importance from an external sustainability perspective.

Remittances depend upon a host of factors, including macroeconomic conditions in source economies, the stock of migrants, the fiscal policy stance in the host countries, oil price dynamics and the domestic policy regime for work related migration (RBI, 2015-16). Increasingly, it is observed that the

cost of remitting funds is becoming a key element influencing the size of remittances (Cecchetti and Schoenholtz, 2018). As formal channels are costly due to regulatory requirements, remitters might be preferring less costly informal channels, though they are less secure and prone to misuse for illegal purposes (Kosse and Vermeulen, 2014). The G20 has prioritised the issue of cost of remittances in its agenda and is encouraging appropriate policies at the country level.

For India, the flow of inward remittances has been pivotal in financing the trade deficit (43 per cent in 2017-18). India continues to be the top recipient country with US\$69 billion of remittances in 2017 sent by a large pool of skilled, semi-skilled and unskilled Indian migrants across the globe.² The cost of sending remittances to India, therefore, assumes critical relevance, especially from the point of view of the potential use of informal/illegal channels.

Since 2006, the Reserve Bank of India (RBI) has been conducting surveys of authorised dealers (ADs) which act as intermediaries for remittances received by residents. This survey, the fourth in its series³, expands its ambit to canvas information on costs of sending remittances for the first time, as well as their country-wise/state-wise distribution.

This article is motivated by these new dimensions of information gleaned from the survey to seek a deeper understanding of inward remittances in terms of source, destination, size, modes of transfer and cost of remittances. The rest of the article is divided into five Sections (including the introductory section). In Section 2, the scope and methodology used in the survey are briefly discussed. Section 3 presents the survey results in terms of the characteristics identified earlier

* This article is prepared by Shri Rajeev Jain, Shri Dharendra Gajbhiye and Ms. Soumasree Tewari in the Division of International Finance, Department of Economic and Policy Research (DEPR), Reserve Bank of India under the guidance of Shri.Rajan Goyal, Adviser, DEPR. The views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

¹ Preliminary findings of the survey were published on the RBI's website on August 09, 2018.

² India accounts for around 6 per cent (16.4 million) of total international migrant stock.

³ Earlier surveys were conducted in July 2006, September 2009 and April 2013.

in the article's mission. Section 4 discusses issues surrounding the cost of remittances. Section 5 sets out concluding observations that are intended to inform policy choices.

2. Scope and Method of the Survey

Globally, the remittance market is serviced by commercial banks, money transfer operators (MTOs), foreign exchange houses and post offices as well as a wide variety of commercial entities acting as agents and sub-agents (Box I). Banks play a prominent role in intermediating remittances flowing into India.

In this round of the survey, out of a universe of 80 ADs that report foreign exchange transactions to the RBI, responses were received from 42 ADs which accounted for 98.3 per cent of total remittances reported in 2016-17. A separate questionnaire was circulated among three major MTOs that have large remittance operations in India.⁴

3. Survey Results

Remittance business is found to be quite diverse across banks. Business models of intermediaries vary, depending on the source country, the prevalent mode of transfer and the size of remittances.

3.1 Country-wise Remittances

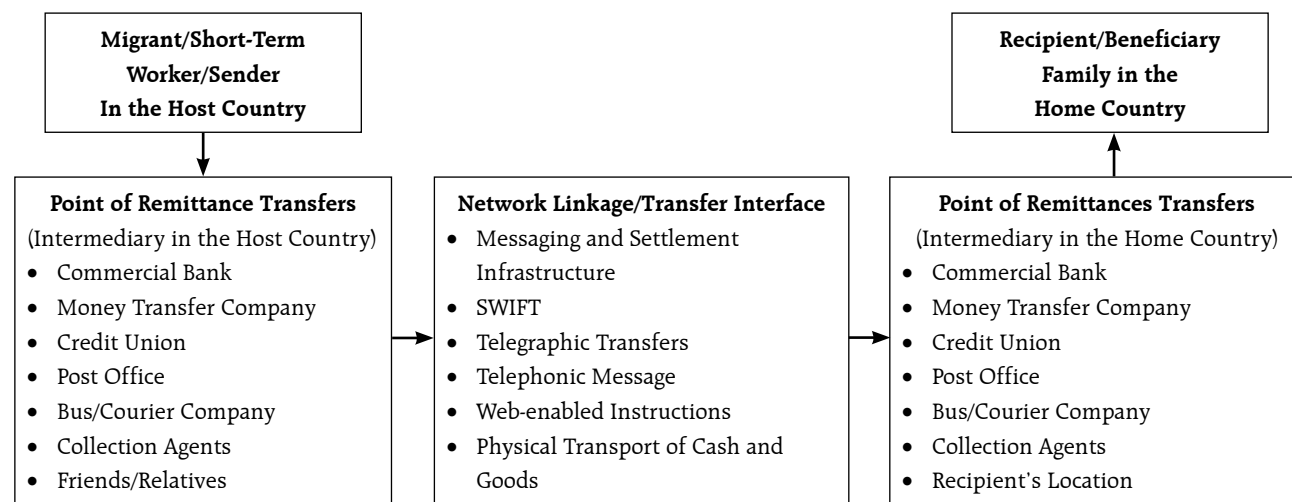
82 per cent of the total remittances received by India originated from seven countries, viz., the United Arab Emirates (UAE), the United States (US), Saudi Arabia, Qatar, Kuwait, the United Kingdom (UK) and Oman (Chart 1). With over 90 per cent of overseas Indians working in the Gulf region and South East Asia (ILO, 2018) – mostly semi-skilled and unskilled workers – the Gulf Cooperation Council (GCC) countries accounted for more than 50 per cent of total remittances received in 2016-17, notwithstanding a sharp decline in oil prices and fiscal tightening in these countries. The Indian diaspora in the US, characterised

Box I: Microstructure of Remittance Channels

Remittances transactions typically involve a sender, a recipient, intermediaries in both countries and the payment interface used by them. In practice, remittances

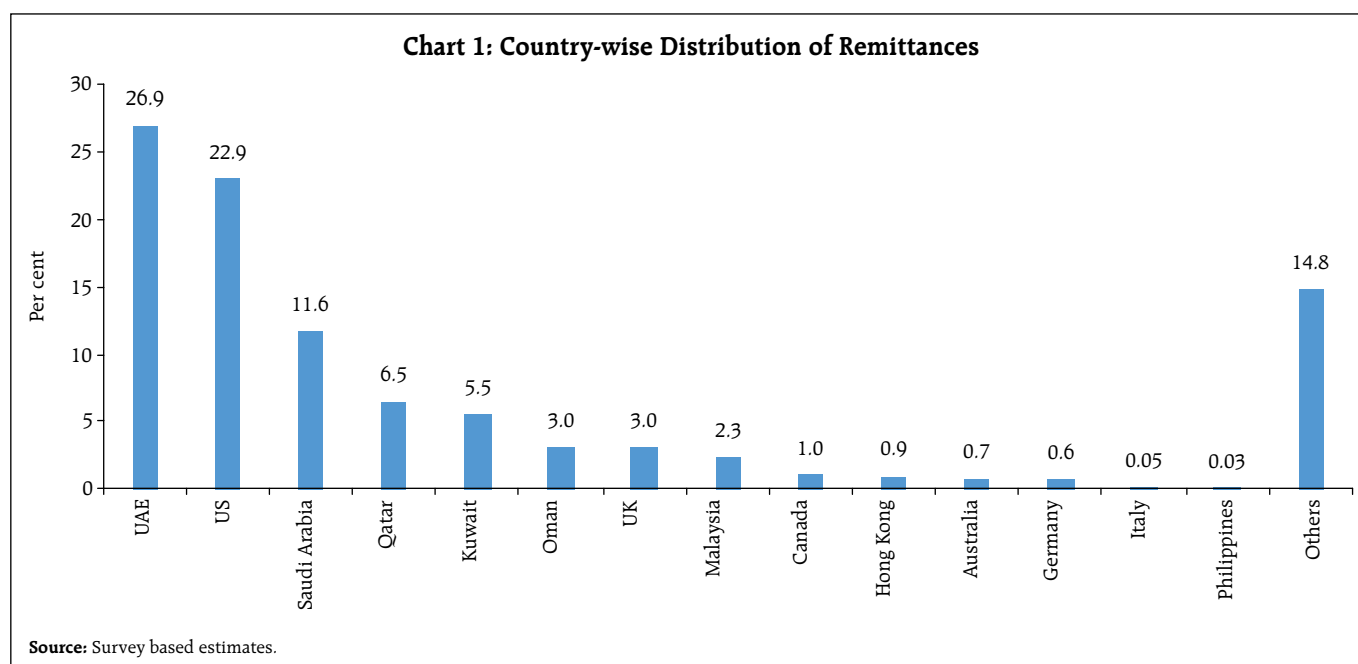
flow through both formal and informal channels. A specific channel may be formal in one country but informal in another due to differential regulatory treatment (Figure 1).

Figure 1: A Broad Framework of Remittance Channels



Source: IMF, 2009.

⁴ Previous rounds of the survey covered a sample of AD Bank branches; MTOs were not covered.



by high skills and high earnings, is the second largest contributor.

3.2 State-wise Remittances

The survey reveals that 58.7 per cent of total remittances was received by four states namely Kerala, Maharashtra, Karnataka and Tamil Nadu. The flows of remittances broadly mirror the State-wise composition of the stock of overseas migrants. The Southern States dominated with a combined share of 46 per cent in total remittances. These results are largely corroborated by surveys independently conducted by multilateral agencies (*viz.*, ILO, 2018), which have also highlighted a shift in cross-border migration flow from prosperous States such as Kerala and Karnataka to States like Uttar Pradesh and Bihar largely comprising of low or semi-skilled contractual workers with low level of income. These two States accounted for 4.4 per cent of total remittances in 2016-17 (Table 1).

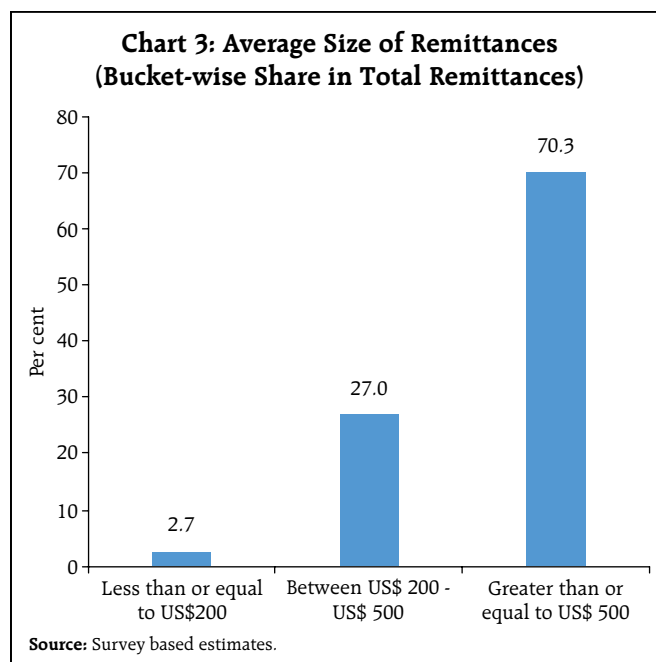
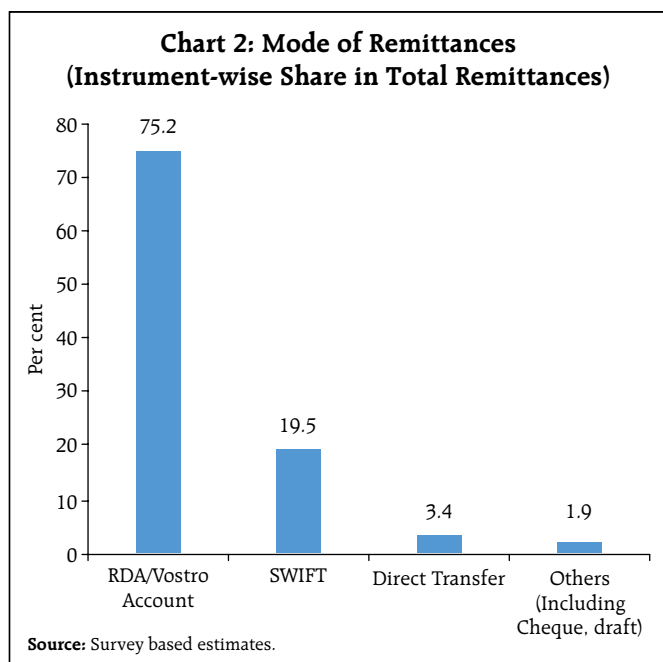
3.3 Mode, Size and Purpose of Remittances

AD banks operate through different schemes of payment transfers, ranging from traditional modes like cheques and drafts to more advanced, easier and faster transmission channels like online

Table 1: State-wise Share in Inward Remittances

State	Share in Total Remittances
Kerala	19.0
Maharashtra	16.7
Karnataka	15.0
Tamil Nadu	8.0
Delhi	5.9
Andhra Pradesh	4.0
Uttar Pradesh	3.1
West Bengal	2.7
Gujarat	2.1
Punjab	1.7
Bihar	1.3
Rajasthan	1.2
Goa	0.8
Haryana	0.8
Madhya Pradesh	0.4
Orissa	0.4
Jharkhand	0.3
Uttarakhand	0.2
Puducherry	0.2
Chandigarh	0.2
Jammu and Kashmir	0.2
Assam	0.1
Himachal Pradesh	0.1
Chhattisgarh	0.1
Others	15.5
Total	100.0

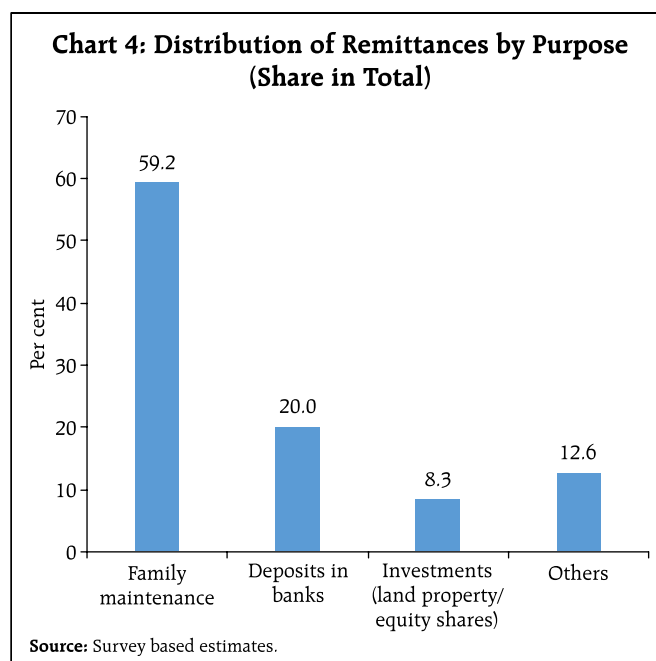
Note: "Others" also includes those remittances for which banks could not identify the specific destination and, therefore, covered such transactions under "Others".



direct transfers (*i.e.*, wire transfers), the Society for Worldwide Inter-bank Financial Telecommunication (SWIFT) transfers and Rupee Drawing Arrangements (RDAs). The survey results show that the RDA is the most preferred mode accounting for 75.2 per cent of remittances, particularly from the GCC countries. RDA enables tie-ups between AD-I banks and non-resident exchange houses for opening and maintaining their vostro accounts. Banks disburse remittances to the final recipient immediately after the cheque/draft is deposited in the rupee/foreign currency vostro account of the non-resident exchange houses. A maximum of 20 such tie-ups are allowed per bank.⁵ The cost of transaction through this channel is less than other channels. The second most popular channel is the SWIFT, followed by direct transfers and cheques and drafts (Chart 2). A size-wise analysis shows that 70.3 per cent of all reported transactions were of more than

or equal to US\$500 and only 2.7 per cent were of less than or equal to US\$200 category (Chart 3).

Based on responses gathered from banks, it is estimated that more than half of remittances received by Indian residents were used for family maintenance (*i.e.*, consumption), followed by deposits in banks (20 per cent) and investments in land property and shares (8.3 per cent) (Chart 4).



⁵ However, as per RBI regulations, once the total number of RDAs reaches 20, the AD Category-I bank (commercial banks, state co-operative banks and urban co-operative banks who are authorized to deal in foreign exchange involving all current and capital account transactions according to RBI directions issued from time to time) may undertake a detailed external audit of the internal system to ensure that they are working satisfactorily and authorise more such arrangements.

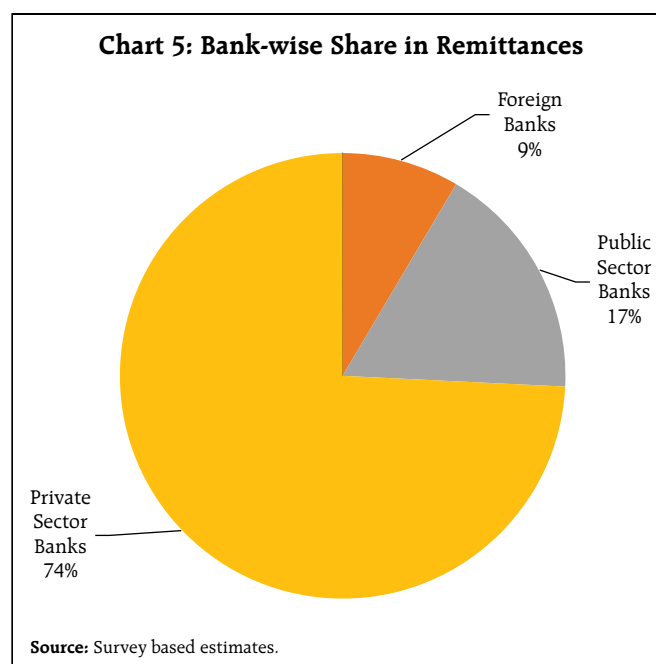
4. Cost of Remittances

Cross-border remittance transactions entail cost incurred by both sender and receiver and are sensitive to these costs (Gibson, *et al.*, 2006). The World Bank and G20, in particular, have increasingly focused on reducing them. Although a large chunk of global remittances is delivered through inter-connected banks and money transfer operators (MTOs), this network is shrinking in various jurisdictions due to anti-money laundering/combating the financing of terrorism (AML/CFT) regulations. In fact, multinational banks, *viz.*, Barclays, Wells Fargo and Bank of America have curtailed their remittance business and have also closed down accounts held by MTOs. Globally, banks are not the preferred choice for retail customers to remit funds due to steep fixed costs and compliance needs (Chandramouli, 2012). Globally, the average cost of sending US\$200 was 7.1 percent in the first quarter of 2018, more than twice the Sustainable Development Goal (SDG) target of 3 per cent to be achieved by 2030 (World Bank, 2018).

The cost of sending remittances is influenced by several factors – destination; transfer method; payments infrastructure; size of remittance; extent of market competition; and the prevailing regulations in both source and destination countries. Furthermore, the cost of remittance is found to vary across corridors, depending on exchange rate margins, fixed fees charged by service providers, originating mode (online or branch), instrument mode and revenue sharing arrangements between intermediaries involved (*e.g.*, correspondent bank and beneficiary bank).

4.1 Remittance Cost for Senders

Generally, the direct cost of remittances is borne by the sender. It is paid to the overseas agents – either banks or exchange houses. The survey results suggest that around three-fourth of total remittances to India are routed through private sector banks (Chart 5). Furthermore, a large chunk is channeled by using RDA, particularly by private and foreign banks (Chart 6).



RDA – the most prominent mode – is less costly in the case of foreign and private sector banks than with public sector banks (Table 2).

The survey results also suggest that the cost of sending remittances to India also varies by the source country and the mode of transfer. In the case of GCC countries, banks mostly operate with the exchange

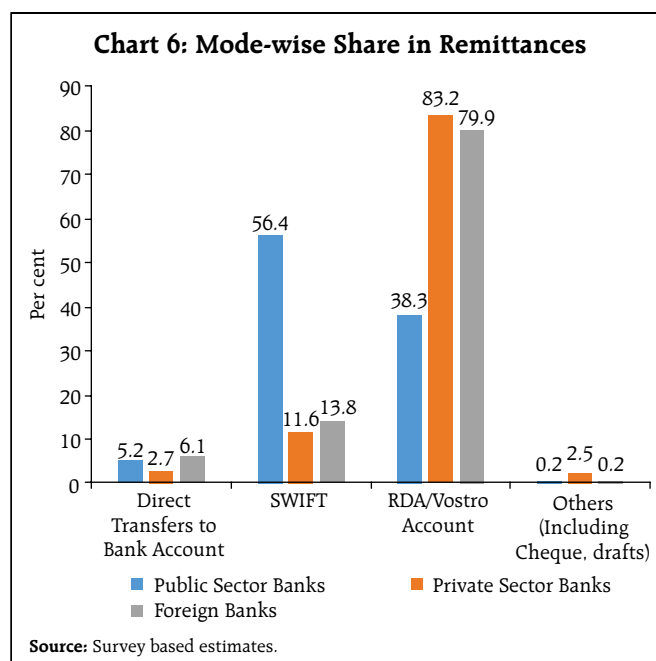


Table 2: Cost of Sending US\$200 and US\$500 to India⁶

Per cent

Bank Type/Mode	US\$200			US\$500		
	Public Sector Banks	Private Sector Banks	Foreign Banks	Public Sector Banks	Private Sector Banks	Foreign Banks
Direct Transfer to Bank Account/Electronic Wire	0-6.7	0-4.0	0-2.1	0-5.5	0-1.7	0-3.1
SWIFT	0-21.3	0-22.7	0-12.7	0-8.6	0-9.2	0-7.7
RDA/Vostro Account	0-13.5	0-11.8	0-8.5	0-5.5	0-4.8	0-14.1

houses by way of RDA/Vostro transactions, with cost ranging between 2 to 4 per cent, which is lower than in non-GCC countries (Table 3).

Another inference that can be drawn from the survey is that public sector banks generally operate with a relatively static cost structure across countries, reducing cost effectiveness relative to foreign and private sector banks. The cost pattern of private sector banks, on the other hand, varies across countries and modes of transfers. Foreign banks operate with the least cost structure, but have a limited role in remitting money to India. Apart from the fixed cost of taxes, foreign currency conversion charges and commission structures of these banks drive cost differentials among banks.

Despite the technological advances in recent years, the overall cost of sending remittances has been found to remain stubbornly high (Mela *et al.*, 2017; Cecchetti and Schoenholtz 2018; World Bank, 2018). For India, the simple average cost of remittances across different corridors continues to be higher than the targeted level of 5 per cent (World Bank). On weighted average basis, however, the average cost of sending

remittances to India, appears to be comparable with the target set by the G20.

4.2 Estimating the Cost of Remittances

Remittances Price Worldwide (RPW) under the aegis of the World Bank monitors the cost of sending remittances across 365 "country corridors".⁷ RPW uses the benchmark size of US\$200 (or equivalent) for providing data on the cost of sending remittances for major corridors.⁸

- The average cost of sending US\$200 to India declined from 9.1 per cent in 2013 to 5.6 per cent in Q1 of 2018 (from 4.9 per cent to 3.3 per cent for sending US\$500); however, if country weights (*i.e.*, value of inward remittances to India through each corridor) are taken into account, the weighted average cost works out to be smaller (Charts 7 and 8).⁹

⁷ The corridors include 48 remittance sending countries and 105 receiving countries. While the cost of sending remittances from India is available for four countries (*viz.*, Bangladesh, Nepal, Pakistan and Sri Lanka), the cost of sending remittances to India is available for 20 countries (*viz.*, Australia, Bahrain, Canada, France, Germany, Italy, Japan, Kuwait, Malaysia, New Zealand, Oman, Qatar, Saudi Arabia, Singapore, South Africa, Sweden, Thailand, the UAE, the UK, and the US).

⁸ According to the World Bank's RPW data release on March 25, 2018; global targets for reduction of remittances cost have focused on the US\$200 (or local currency equivalent) as amount sent, which is believed to be an accurate representation of the typical remittances transaction. Until recently, the RPW focused on US\$200 amount. However, as data for US\$500 (or equivalent) have also been collected, the World Bank started releasing a brief analysis of trends for this higher amount as of December 2017.

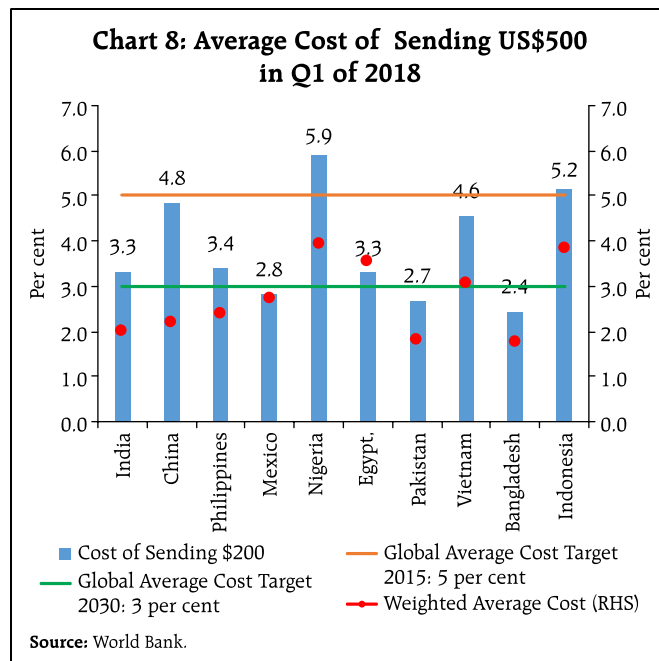
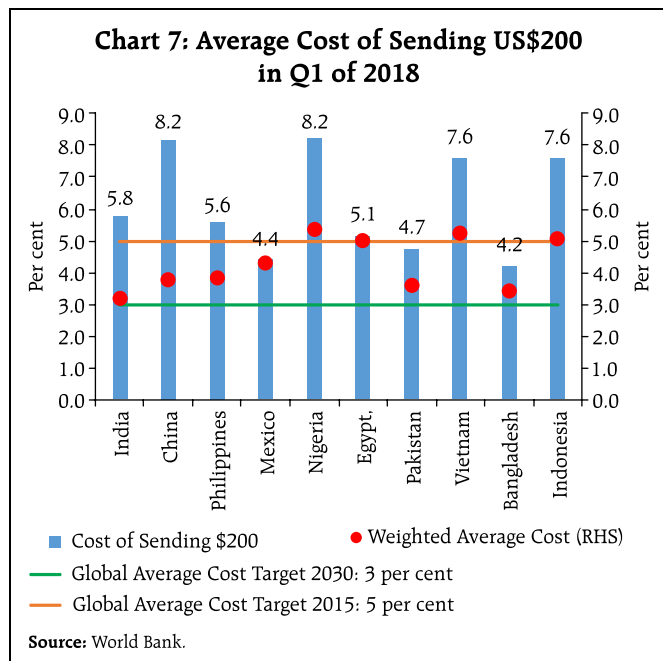
⁹ RPW indicators are used to measure the progress towards global targets for the reduction of remittances costs. The G8 (L'Aquila, 2010) and the G20 (Cannes, 2011 and Brisbane, 2014) committed to reduce global average total costs to 5 per cent. In 2016, the G20 aligned its work with the 2030 Agenda by including the target, *i.e.*, to reduce the cost of remittances to less than 3 per cent and to eliminate remittance corridors with costs higher than 5 per cent by 2030 as an SDG.

Table 3: Maximum Cost Borne by Sender: Region wise

Instrument	US\$200		US\$500	
	Gulf Countries	Non-Gulf Countries	Gulf Countries	Non-Gulf Countries
RDA/Vostro Account	4.4	13.5	1.9	5.5

Note: Based on information available from top 10 recipient banks.

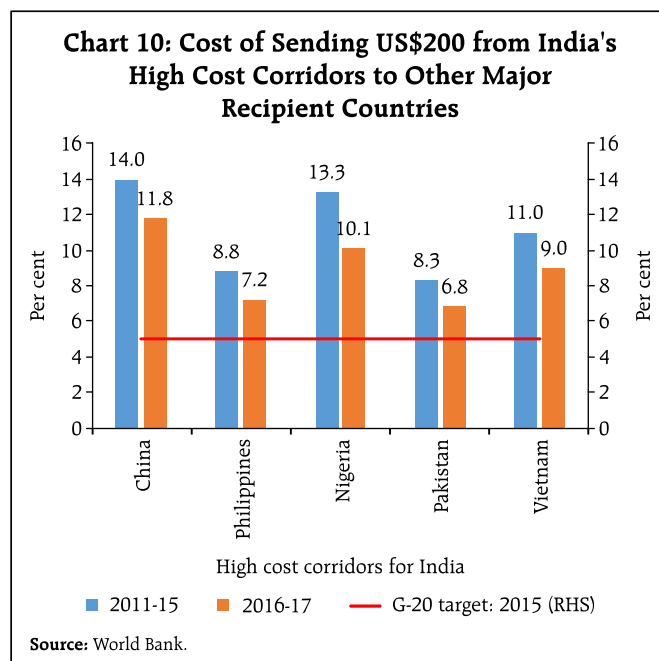
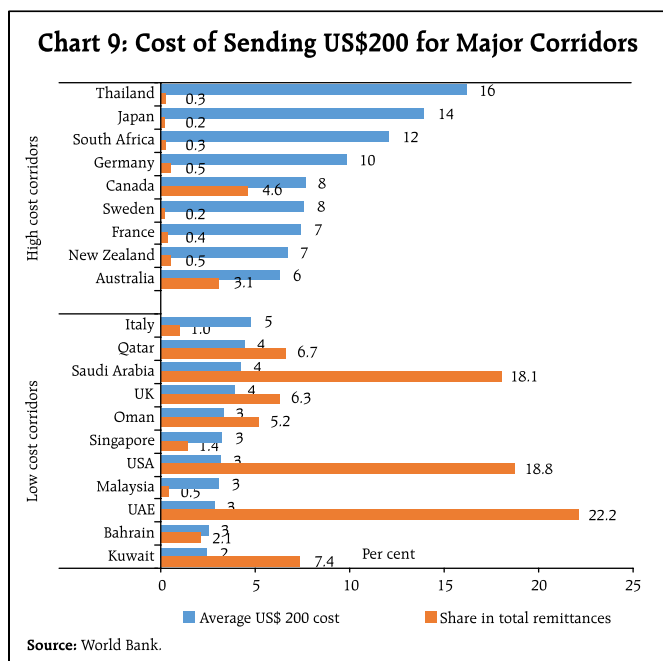
⁶ As the cost of sending remittances reported under the survey varies significantly across banks, it is expressed in terms of ranges.

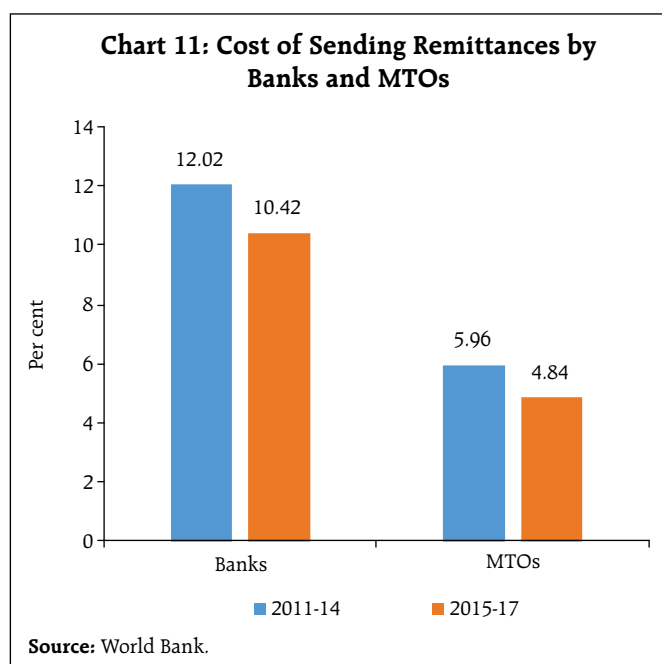


- Corridors with Thailand and Japan are particularly costly, involving a cost of more than 10 per cent of the principal amount; the share of these countries was, however, only 1 per cent of total inbound remittances (Chart 9).
- The cost of sending remittances from high cost corridors (e.g., Thailand and Japan) is found to be higher for other major remittance

corridors as well, implying that banking and financial services related to remittances may be costly in these countries (Chart 10).

- Although the cost of sending US\$200 to India through banks and MTOs has declined (Chart 11), bank charges are almost double the cost charged by MTOs, probably reflecting higher compliance cost with regard to AML/CFT regulations.





4.3 Remittance Cost for Receivers

As alluded to earlier, some part of the cost of a remittance transaction may be borne by the receiver in the form of commission, tax and foreign currency charges, depending on the nature of agreement between the intermediaries. The survey results show a wide variation in the cost borne by receivers, including differentiation across source countries and modes of transfer.

The cost of receiving US\$200 through various modes (excluding cheques and drafts) varies between zero and 13.3 per cent of the remitted amount across all banks, with charges by public sector banks being lower than those of private and foreign banks. In

particular, private sector banks' charges range between zero and 12.6 per cent, despite having the largest market share in remittances business. These costs halve for US\$500 across all bank groups, however, pointing to scale economies for banks (Table 4). In the case of GCC countries, account-to-account transactions are operational with banks having tie-ups with the exchange houses. This results in the cost of receiving remittances being effectively zero; only the tax part is deducted.

4.4 Money Transfer Operators

Among non-banking players, MTOs play a vital role in the remittance space across the globe. MTOs are financial companies which undertake cross-border transfer of funds on behalf of their clients by using either their internal systems or by accessing cross-border banking networks. In the case of India too, MTOs play a very crucial role by catering to the needs of migrant workers who are not able to use the banking channel for a variety of reasons, including financial illiteracy. MTOs servicing the Indian diaspora use a network of their own outlets or other transfer agents (*e.g.*, banks, exchange bureaus, post offices, cell phone centers, travel agencies, drug stores, and gas stations) to transfer remittances. Importantly, the cost of remittances through MTOs is competitive *vis-à-vis* banks and they are generally popular for low value cash transactions. In fact, the recent surge in FinTech has empowered MTOs to pose a major challenge to the dominance of the banking sector in remittances business (Box II).

Table 4: Cost Borne by Receiver in India

Per cent

Bank Type/Mode	US\$200			US\$500		
	Public Sector Banks	Private Sector Banks	Foreign Banks	Public Sector Banks	Private Sector Banks	Foreign Banks
Direct Transfer to Bank Account/Electronic Wire	0-1.5	0-1.9	0-2.0	0-0.7	0-1.1	0-0.8
SWIFT	0.5-4.4	0-12.7	0-13.3	0-2.5	0-6.3	0-5.4
RDA/Vostro Account	0-2.4	0-4.5	0-5.5	0-1.0	0-1.8	0-2.0
Others (Including Cheque and draft)	0-2.3	0-12.6	0-40.4	0-1.0	0-5.1	0-16.4

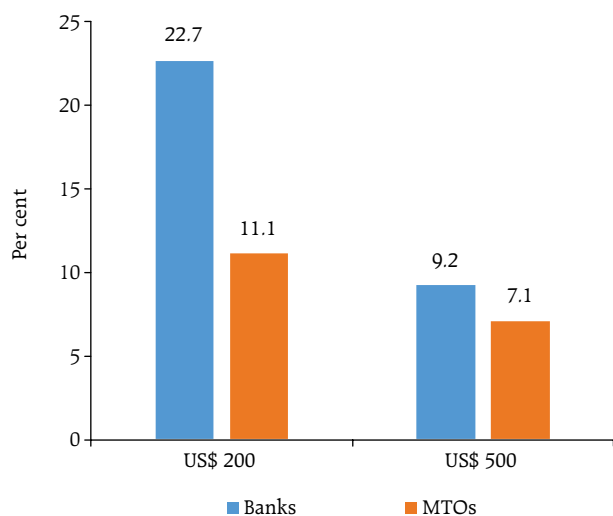
Box II: Operational and Cost Aspects of MTOs

MTOs operate through a franchised network of cross border fund transfers under the Money Transfer Service Scheme (MTSS). It involves a tie-up between reputed money transfer companies abroad known as 'Overseas Principals' and agents in India known as 'Indian Agents', the latter being responsible for disbursing funds to the final beneficiaries either directly or through sub-agents (Figure 1). The 'Overseas Principal' should be a registered entity licensed by the financial regulatory authority of the host country for carrying on money transfer activities, with permission from the Department of Payment and Settlement Systems (RBI) under the provisions of the Payment and Settlement Systems Act (PSS Act) 2007. The Indian agent should be an AD-I or AD-II bank or Full Fledged Money Changers (FFMCs), a post office, which, in turn, can appoint sub-agents, viz., retail outlets and commercial entities.

The MTSS is perceived as a convenient means of funds transfer for migrants with limited access to the banking system in the host country and preference for cash-to-cash services. In adherence to AML/CFT regulations, the scheme allows personal remittances towards family maintenance and foreign tourism in India with a cap of US\$2,500 in value terms. Furthermore, 30 remittances are allowed per person per year. Remittances for trade-related activities and investments to NRE/NRO accounts are not permissible under this scheme. Limited access to operating licenses through the RDA channel overseas has also played a role in focusing the business model of MTOs on low value transactions under the MTSS.

More than 50 per cent of remittances channeled by MTOs is from GCC countries. The survey suggests that the average sender cost is lower for MTOs than

Chart II.1: Senders' Cost Across Banks and MTOs



Source: Survey based estimates.

for banks and the cost differential narrows with higher value remittances. The cost of remitting US\$200 through MTOs is in the range of 0-11.1 per cent of remitted amount, much lower than the cost charged by banks in the range of 0-22.7 per cent of the total amount remitted across corridors. For sending US\$500, however, the cost differential narrows with cost of 7.1 per cent and 9.2 per cent for MTOs and banks, respectively (Chart II.1).

The difference in remittance cost charged by MTOs vis-à-vis banks exists across countries and corridors, with the low overhead cost structure of the former and better exchange rates on consolidated transfers enhancing their core competence and cost effectiveness. Moreover, in the case of MTOs, the cost structure is relatively dynamic and influenced by various factors like festivals, locations, special pricing and marketing promotions. Taken together, these advantages drive senders to use MTOs or more informal and riskier channels.

In the case of India, more than 90 per cent of total MTO transactions are cash-to-cash services (Chart II.2). The risk of unaccounted transfers and fragmentation of high value transactions into a number of low value transactions may be higher through these channels. Banks,

(Contd...)

Figure 1: Fund Transfer Process for MTOs

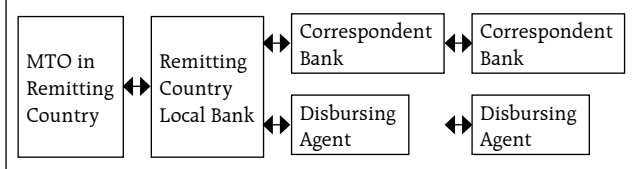
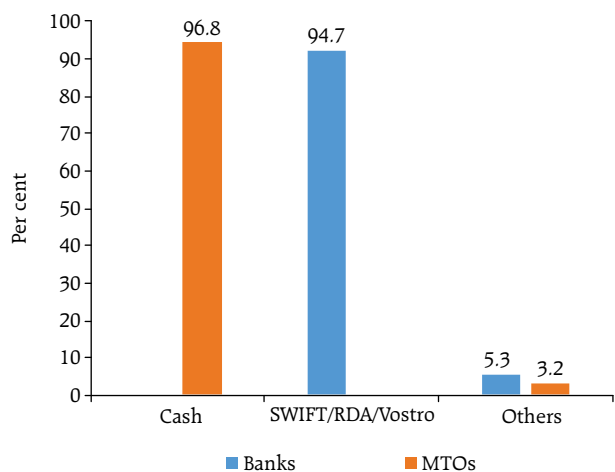


Chart II.2: Primary Mode of Remittances for Banks and MTOs



Source: Survey based estimates.

5. Conclusion

To sum up, the survey provides some interesting insights on various aspects of remittances, which could be exploited for developing and building up a conducive policy ecosystem that nurtures and magnifies these vital foreign exchange to India in a well-directed manner and at minimum costs, so that welfare gains accrue to senders, recipients and to the Indian economy. The largest chunk of inbound remittances is destined to Kerala, Maharashtra and Karnataka, a feature which can be employed to develop preferred habitats for remittance flows and worthy of emulation by lower profile remittance receiving States as an ever-increasing share of India's population turns mobile overseas in search of work commensurate with skills and demographics. GCC countries are the major source of remittances and business tie-ups with various exchange houses have facilitated cheaper transmission of remittances relative to those from other countries. Policy initiatives to cultivate these sources – G2G; B2B; and crowding-in of P2P¹⁰ need to

¹⁰ G2G: Government-to-Government; B2B: Business-to Business; P2P: Person-to-Person transactions.

on the other hand, offer smooth and secure transmission channels catering to all regulatory compliances but with higher cost.

References

- International Remittances, Finacle from Infosys, October 2011
- Master Circular on Money Transfer Service Scheme, Master Circular No.1/2015-16, July 2015, https://www.rbi.org.in/Scripts/BS_ViewMasterCirculars.aspx?Id=9895&Mode=0
- Master Direction – Money Transfer Service Scheme (MTSS), February 2017, FED Master Direction No.1/2016-17, <https://www.rbi.org.in/scripts/NotificationUser.aspx?Id=10868&fn=5&Mode=0>

be accorded priority to augment ticket sizes and lower costs. Moreover, the survey shows that despite banks having greater access to RDA, the overall cost charged by MTOs is significantly lower probably due to their core advantages in low value remittance business and dynamic cost structure. Accordingly, MTOs and the policy framework in which they operate need to be reset to enable them to reap economies of scale and scope, with a level playing field *vis-à-vis* banks. This may warrant a careful review of the AML/CFT regime, which is prudent, transparent and effective but supportive of small operators and networks. In the formulation of these policy initiatives, India begins with a comparative advantage – corridor-wise data from the RPW show that the weighted average cost of sending remittances to India is lower than the simple average cost that is benchmarked by the World Bank to monitor the country-level progress in the reduction of remittances costs.

References

- Cecchetti, Stephen and Kim Schoenholtz (2018), "The stubbornly high cost of remittances", <https://voxeu.org/article/stubbornly-high-cost-remittances>.

- Chandramouli, Anand (2012), "Remittance Market: Ready and Waiting for its 'Skype' Moment", *Cognizant Report*, November.
- Gibson, J. and H. Rohorua (2006), "How Cost Elastic Are Remittances? Evidence from Tongan Migrants in New Zealand", *Pacific Economic Bulletin*, Vol.21(1): 112-128.
- International Monetary Fund (2009), *International Transactions in Remittances: Guide for Compilers and Users*, Statistics Department, IMF, Washington, D.C.
- Kosse, Anneke and Robert Vermeulen (2014), "Migrants' Choice of Remittance Channel: Do General Payment Habits Play A Role?", *ECB Working Paper Series No. 1683*, June.
- Mela, Mauro (2017), "Cross Border Remittances Pricing- Does market structure drives the prices for cross-border remittances in South Africa?", Finmark Trust Report.
- Reserve Bank of India (2006), *Report of the Working Group on Cost of NRI Remittances*.
- Reserve Bank of India (2016), Annual Report 2015-16.
- World Bank Remittances Worldwide database.
- World Bank (2018), *Migration and Remittances-Recent Development and Outlook*, April 2018.

Regional Inflation Dynamics in India *

An analysis of the regional inflation dynamics in India reveals the presence of wide dispersion in inflation across states, largely driven by food price inflation. State level inflation tends to converge to the national average over time, however, validating the choice of national level consumer price inflation as the nominal anchor for monetary policy in India.

Introduction

With the adoption of a flexible inflation targeting (FIT) framework in India with consumer price inflation (all-India combined) as the numerical target, a path of disinflation has brought down inflation from 11.5 per cent in November 2013 to an average level of 3.6 per cent in 2017-18. This receding of inflation has not been even though, marked as it has been by seasonal surges, disruptive shocks including demonetisation, the Goods and Services Tax (GST), farmers'/transporters' agitations, a deep downturn in food inflation on a combination of cyclical, irregular and policy-related forces and high volatility in international crude prices. As a result, inflation has generally eased across states, but with wide variations.

For an inflation targeting (IT) central bank, regional heterogeneity in price movements could have a significant impact on the effectiveness of monetary policy. Large inflation differentials among regions within an economy can lead to significant variations in real interest rates and consequently, in levels of aggregate demand (Cecchetti *et al.*, 2002; Beck *et al.*,

2009). High dispersion of inflation across regions could also have implications for the labour markets in terms of wage rates and standards of living. Ignoring the regional dimensions of inflation may limit the effectiveness of a nationally set monetary policy in satisfying the needs of all regions equally (Beck and Weber, 2005; Weyerstrass *et al.*, 2011). In the Indian context, ensuring that the benefits of low and stable inflation accrue across regions and states is critical for anchoring the credibility of the new monetary policy framework and for incentivising buy-in by the widest sections of society. Wide disparities across Indian states in terms of economic, geographic and structural factors warrant a careful examination of their role in regional inflation dispersion and hence on national inflation. Additionally, as the all-India consumer price index (CPI) is compiled as a weighted average of the state level price indices, *i.e.*, a bottom-up approach, relative price movements across states will have a bearing on overall inflation outcomes. Accordingly, drilling down into the dynamics of regional inflation formation in India is the main motivation for this article. To briefly summarise, it finds that there is considerable regional dispersion, although largely influenced by supply side food price shocks. The estimated kernel density function as well as beta (β) convergence tests confirm that regional inflation tends to converge towards the national average inflation during the sample period.

The remainder of the article is structured into five Sections. Section II provides a detailed analysis of inflation and its volatility at the national and regional levels as well as at aggregate and disaggregate levels to understand the pattern and driver of regional inflation dispersion in India. Section III draws on select contributions to the theoretical and empirical literature on regional inflation dynamics and monetary policy from a cross-country perspective. The convergence of inflation rates across states to the national inflation level is tested empirically in

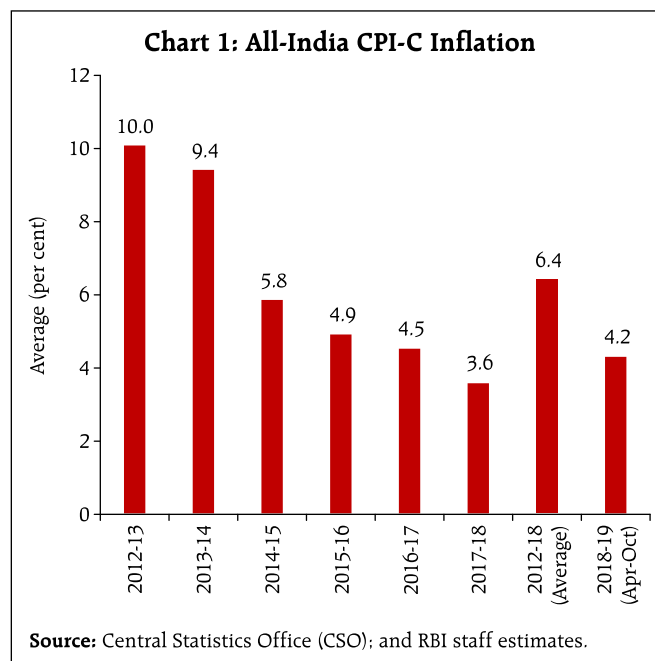
* This article is prepared by Smt. Sujata Kundu, Shri Vimal Kishore and Shri Binod B. Bhoi in the Prices and Monetary Research Division of the Department of Economic and Policy Research, Reserve Bank of India. The authors sincerely thank Shri S. Pattanaik, Adviser, DEPR, for his valuable suggestions. The views expressed in the article are those of the authors and do not represent the views of the Reserve Bank of India.

Section IV to examine whether an inflation target at the national level is appropriate. Section V provides concluding observations and policy implications.

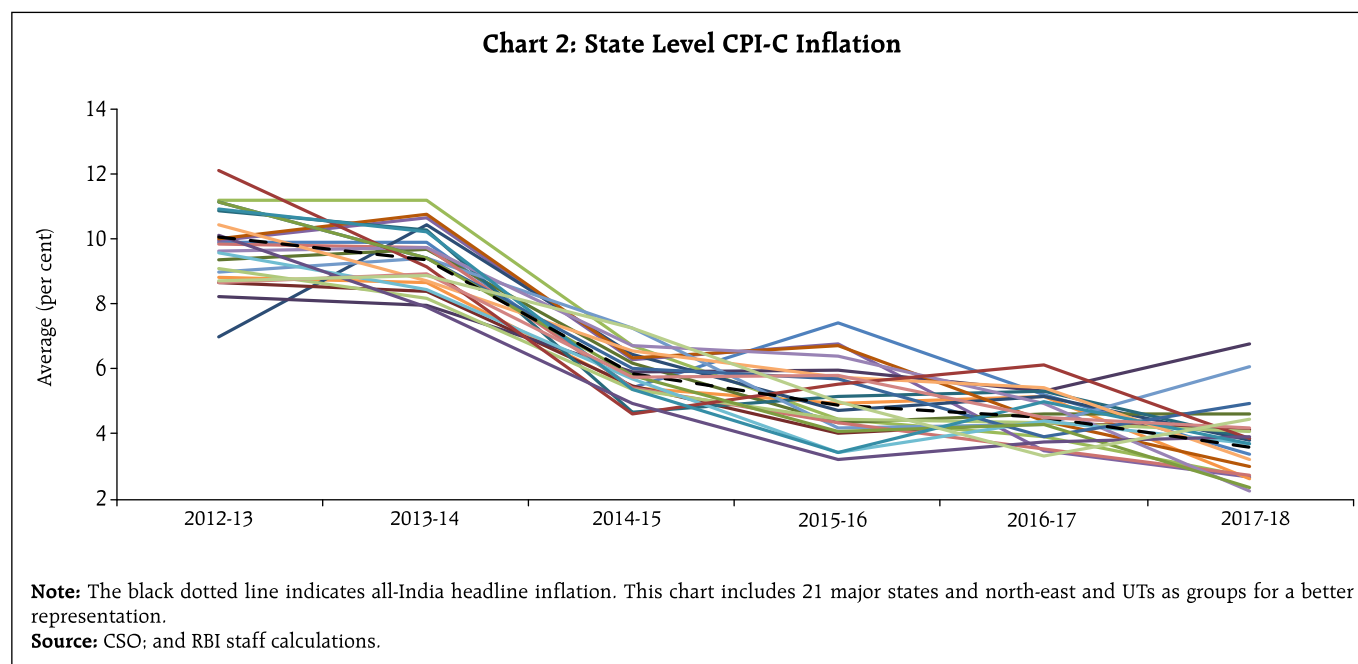
II. Some Stylised National/Regional Features

Beginning in December 2013, headline CPI inflation¹ has eased from an average of 10.0 per cent in 2012-13 to 3.6 per cent in 2017-18 and 4.2 per cent in the first seven months of the current fiscal year (April-October, 2018). Although a *de jure* flexible inflation targeting was established in September 2016, the path to its adoption was laid by *de facto* pre-commitments that initiated the disinflation and consolidated the gains accruing therefrom² (Chart 1).

In line with the all-India trend, inflation also moderated across states (Chart 2), *albeit* with wide variations relative to the former.



Notably, all the southern states had higher average inflation than northern states like Punjab, Haryana, Uttar Pradesh and Uttarakhand as well as states in



¹ Headline inflation is measured by year-on-year changes in the all India CPI-C (Rural + Urban) with base year: 2012=100 released by the Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation, Government of India.

² In January 2014, the Reserve Bank adopted a self-imposed target to bring down headline CPI inflation in a sequential manner - to 8 per cent by end-2014, 6 per cent by end-2015 and 5 per cent by end-2016 - which is called the glide path for inflation (Patra, 2017). A flexible inflation targeting (FIT) monetary policy framework was provided a statutory basis with the amendment to Reserve Bank of India (RBI) Act in May 2016, under which price stability has been mandated as the primary objective of monetary policy, while keeping in mind the objective of growth. Price stability has been defined in terms of a numerical inflation target (year-on-year change in the consumer price index-combined, *i.e.*, CPI-C) set by the government at 4 per cent with an upper tolerance level of 6 per cent and a lower tolerance level of 2 per cent.

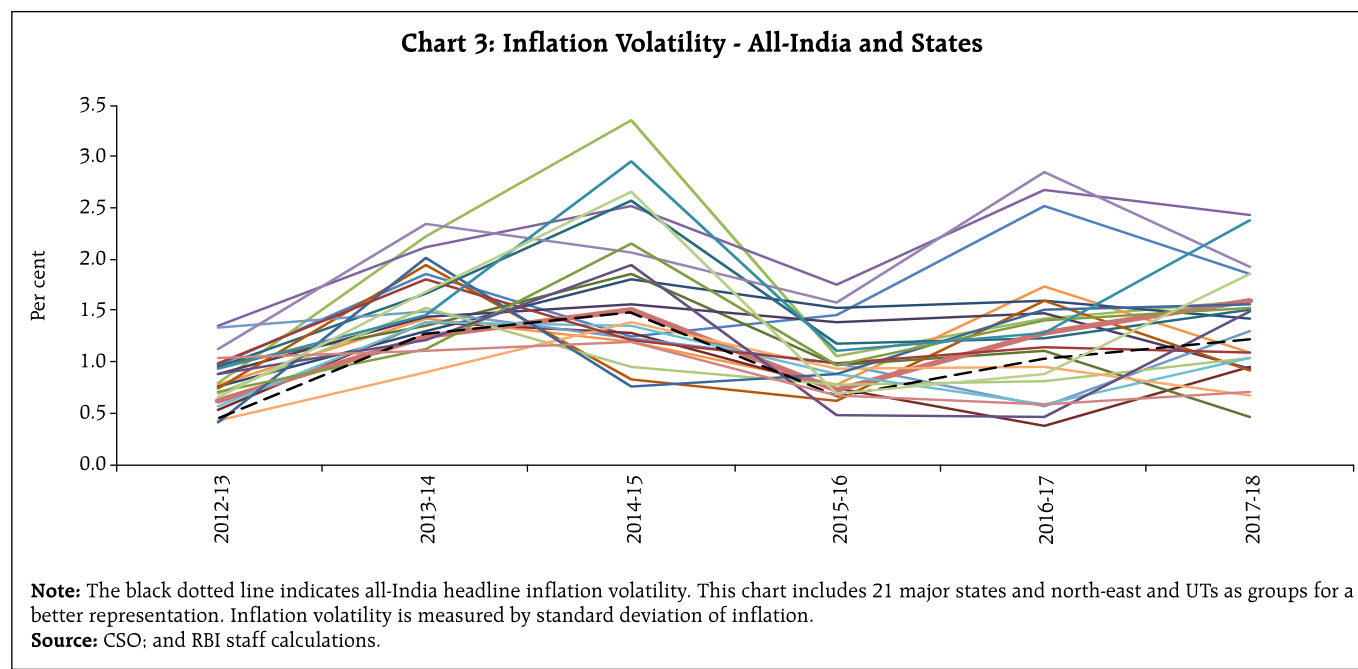
other regions like Maharashtra and Madhya Pradesh. Bihar recorded the highest inflation of 16.1 per cent (November 2013), while Chhattisgarh recorded the lowest inflation level of (-) 2.3 per cent (June 2017) as against the national-level maximum of 11.5 per cent (November 2013) and minimum of 1.5 per cent (June 2017).

Intra-year volatility (measured by the standard deviation of monthly year-on-year (y-o-y) inflation rates) varied considerably at both all-India and state levels (Chart 3). Generally, headline inflation volatility has increased, barring a blip in 2015-16, in spite of the moderation in mean inflation. A similar pattern is observed at the state level, with inflation volatility becoming more pronounced than at the national level, with states in the central and eastern regions experiencing higher inflation volatility than the other regions and at the all-India level (Table 1).

Over this period, inflation and inflation volatility did not exhibit any noteworthy co-movement, which is in contrast with the two-way causality posited in the

literature³. In fact, when inflation averaged a high of 10.0 per cent in 2012-13, its volatility was at the lowest in the period of study at 0.5 per cent; volatility rose to 1.2 per cent when average inflation was at its lowest level of 3.6 per cent in 2017-18 (Chart 4a). This relationship alters dramatically, however, in the regional setting. Unlike the all-India pattern, state-level inflation and inflation volatility co-moved during 2012-13 to 2017-18 (Chart 4b). Another interesting observation is that the states/regions that experienced high average inflation (e.g., Bihar, Chhattisgarh, Odisha and West Bengal) also recorded high volatility in inflation.

At a disaggregated level, all-India headline inflation was driven largely by the movements in food inflation (Chart 5a). In fact, the sharp moderation in inflation during 2017-18 can be largely attributed to food inflation, with its contribution to overall inflation falling below 30 per cent from an average of 52 per cent in the previous five years (Chart 5b). Other major contributors were the miscellaneous group (which covers miscellaneous goods and services including petroleum products) and housing rentals.



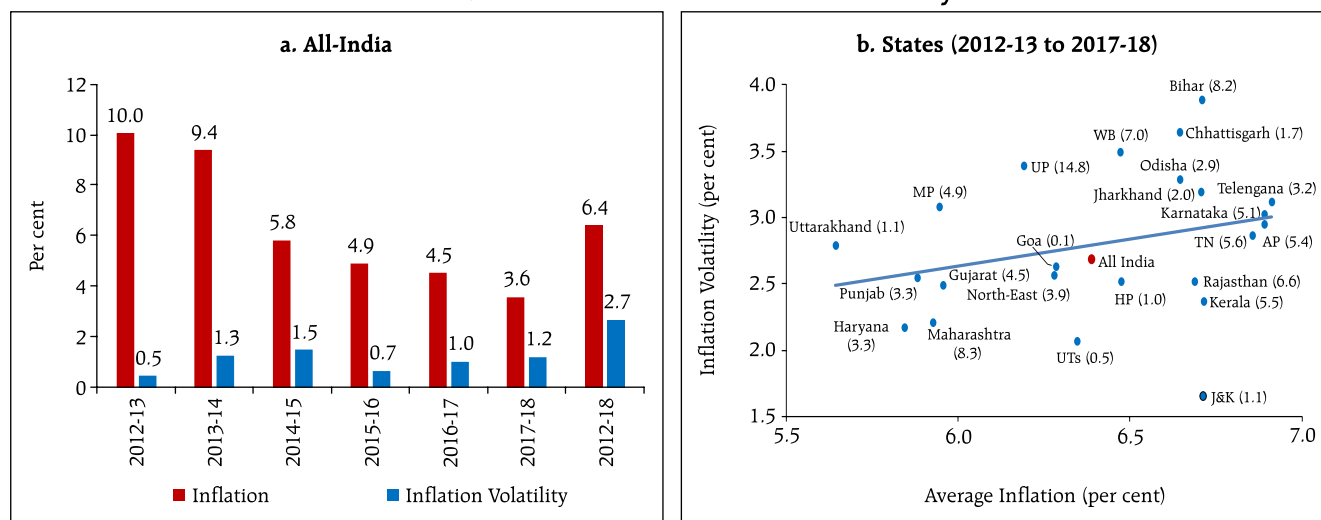
³ According to the Friedman-Ball hypothesis, a rise in inflation raises inflation volatility; on the other hand, according to the Cukierman-Meltzer arguments, higher inflation volatility fuels inflation (Kim and Lin, 2012; Hossain and Arwathanakarn, 2016).

Table 1: Regional CPI-C Inflation – Key Summary Statistics (2012-13 to 2017-18)

	Weights in All India CPI	Mean	Maximum	Minimum	Standard Deviation	Skewness	Kurtosis
Northern Region	24.67	6.1	11.8	1.4	2.9	0.4	-1.2
Haryana	3.30	5.8	11.1	2.5	2.2	0.5	-0.8
HP	1.03	6.5	12.5	2.6	2.5	0.5	-1.0
J&K	1.14	6.7	10.6	3.2	1.7	-0.2	-0.2
Punjab	3.31	5.9	11.0	2.1	2.6	0.4	-1.1
UP	14.83	6.2	12.2	0.4	3.4	0.3	-1.2
Uttarakhand	1.06	5.6	11.5	1.8	2.8	0.6	-1.0
Western Region	19.56	6.2	10.3	1.5	2.3	0.3	-1.1
Gujarat	4.5	6.0	10.8	0.2	2.5	0.1	-0.8
Goa	0.1	6.3	11.8	1.7	2.6	0.5	-0.3
Maharashtra	8.3	5.9	10.3	2.1	2.2	0.5	-1.0
Rajasthan	6.6	6.7	11.1	1.7	2.5	0.1	-1.0
Central Region	6.61	6.1	12.6	-0.5	3.2	0.1	-1.0
Chhattisgarh	1.68	6.7	15.2	-2.3	3.7	-0.2	-0.3
MP	4.93	5.9	11.7	0.2	3.1	0.3	-1.2
Eastern Region	20.09	6.6	14.8	0.8	3.5	0.3	-1.1
Bihar	8.21	6.7	16.1	0.8	3.9	0.4	-1.1
Jharkhand	1.96	6.7	13.5	0.5	3.2	0.3	-1.0
Odisha	2.93	6.6	15.2	-0.6	3.3	-0.2	-0.3
WB	6.99	6.5	13.6	1.2	3.5	0.2	-1.3
Southern Region	24.70	6.8	11.5	2.0	2.6	0.4	-1.0
Andhra Pradesh	5.40	6.9	12.0	0.7	3.0	-0.2	-0.9
Karnataka	5.09	6.9	12.8	1.5	3.0	0.2	-0.9
Kerala	5.50	6.7	11.1	2.9	2.4	0.3	-1.0
Tamil Nadu	5.55	6.9	11.9	1.5	2.9	0.4	-0.9
Telangana	3.16	6.9	13.8	1.6	3.1	0.7	-0.7
North-eastern Region	3.90	6.3	11.6	2.3	2.6	0.2	-1.3
<i>Of which, Assam</i>	2.63	6.1	11.7	1.2	3.0	0.0	-1.4
Union Territories (UTs)	0.5	6.3	10.8	3.0	2.1	0.5	-0.9
All India	100.00	6.4	11.5	1.5	2.7	0.3	-1.2

Note: North-eastern states and UTs are shown as groups for better representation.

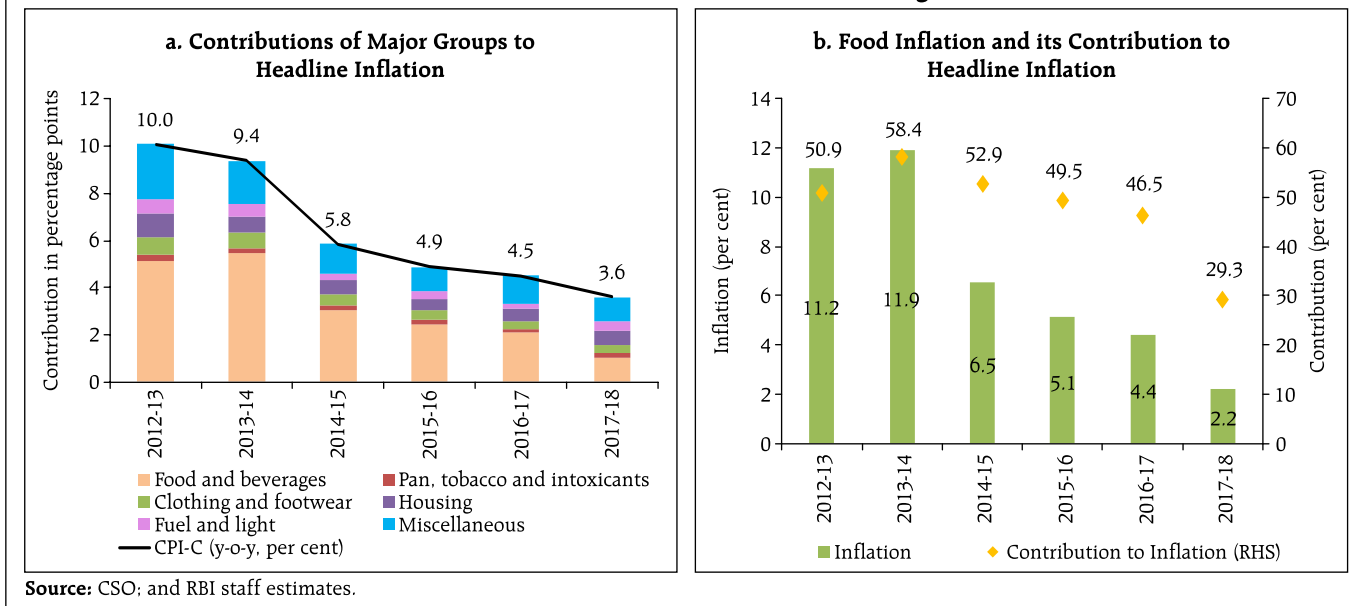
Source: CSO; and RBI staff estimates.

Chart 4: Mean Inflation and Inflation Volatility

Note: North-eastern states and UTs are shown as groups for better representation. Inflation volatility is measured by standard deviation of inflation. Figures in parentheses indicate respective state's weight (in per cent) in CPI-C.

Source: CSO; and RBI staff estimates.

Chart 5: Drivers of All India Headline CPI-C Inflation during 2012-13 to 2017-18



Food inflation also exhibited the highest volatility (Chart 6), which, in turn, was transmitted to overall inflation, given the large weight of food (45.9 per cent) in the all-India CPI-C.

At the sub-national level, there exists a positive relationship between average food inflation and overall inflation (Chart 7a). Similarly, a positive relationship between overall inflation volatility and

food inflation volatility can be observed across states (Chart 7b).

Overall, there seems to exist a strong co-movement between the inflation spread (measured as state headline inflation minus all-India headline inflation) and its volatility with the food inflation spread (measured as state food inflation minus all-India food inflation) and its volatility across states

Chart 6: All-India Inflation and Inflation Volatility across Major Sub-groups during April 2012-March 2018

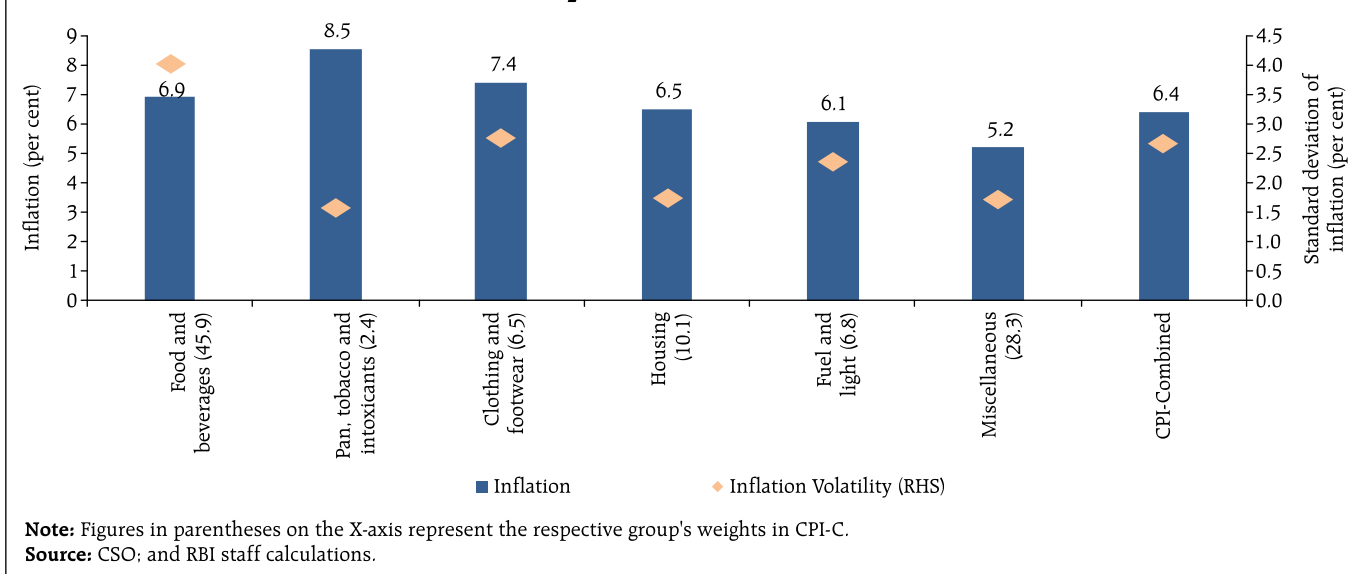
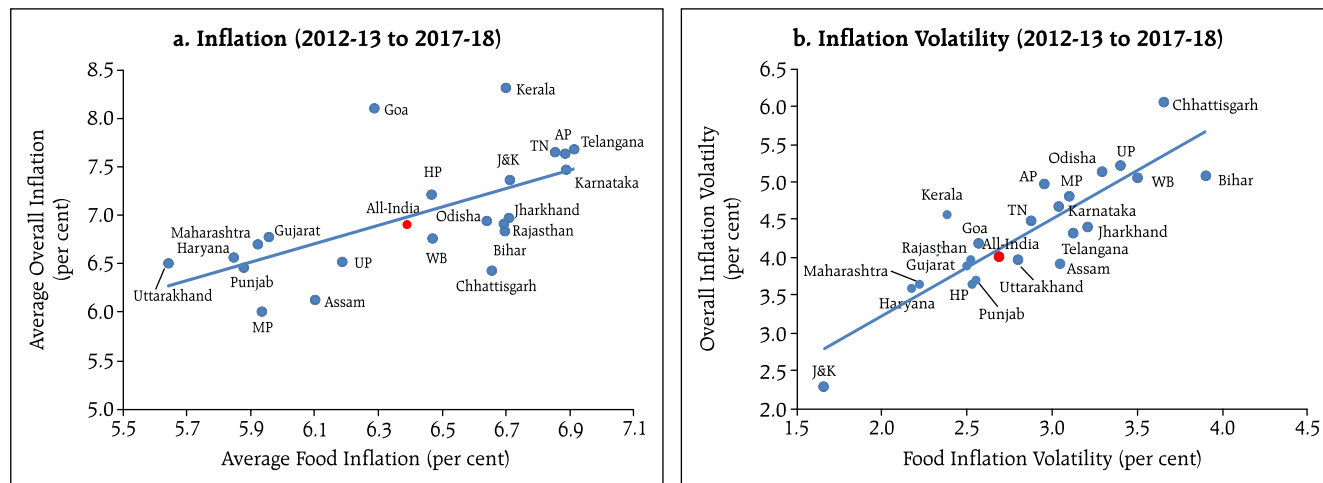


Chart 7: State Level Inflation and Inflation Volatility – Overall and Food Group (2012-13 to 2017-18)



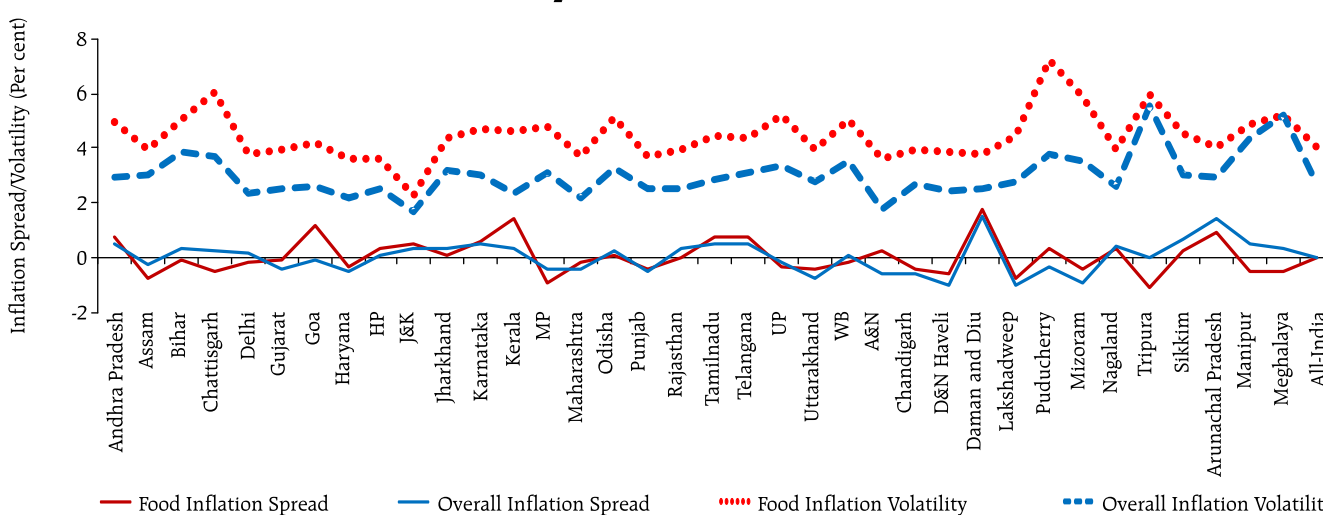
Note: North-east and UTs could not be presented in this chart due to non-availability of group/sub-group level weights for the combined CPI across states; therefore, only Assam is included which is the major state from the north-east.
Source: CSO; and RBI staff estimates.

(Chart 8), with possible externalities for inflation expectations.

A simple panel regression⁴ covering all states with the food inflation spread as the explanatory variable and the headline inflation spread as the dependent

variable while controlling for differences in income levels across states through gross state domestic product (GSDP) growth spread (measured as state GSDP growth minus all India GDP growth) reveals that 69 per cent of the variation in the inflation spread is explained by food inflation spread alone (Table 2).

Chart 8: State-wise Average Overall and Food Inflation Spreads and its Volatility (April 2012-March 2018)



Source: CSO; and RBI staff calculations.

⁴ The Breusch-Pagan Lagrange Multiplier (LM) test suggests that an ordinary least squares (OLS) regression is better suited than a random effects panel regression, although there are no major changes in the coefficients and their level of significance between the two models in our results.

Table 2: Results of the Panel Regression

Explanatory Variables	Dependent Variable: Headline Inflation Spread (20 States [#] ; Period : 2012-13 to 2016-17)	
	Coefficient	t-value
<i>food inflation spread_{it}</i>	0.69	8.80***
<i>GSDP growth spread_{it}</i>	-0.04	-1.27
<i>constant</i>	0.11	1.13
No. of observations	100	
F (2, 97)	39.18***	
Rsquared	0.75	

Note: ***: represents level of significance at 1 per cent.

#: Includes Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, HP, J&K, Karnataka, Kerala, Tamil Nadu, MP, Maharashtra, Odisha, Punjab, Rajasthan, UP, WB, Manipur, Meghalaya, Tripura.

Source: CSO; and RBI staff calculations.

The following equation is estimated in the regression:

$$\text{Headline inflation spread}_{it} = \alpha + \beta \text{Food inflation spread}_{it} + \gamma \text{GSDP growth spread}_{it} + \varepsilon_{it}$$

where, i stands for state, t stands for year and ε is the error term.

III. The Lessons from the Literature

The issue of regional inflation dynamics and convergence has attracted attention, particularly after the introduction of the Euro (Cecchetti *et al.*, 2002; Beck *et al.*, 2005; 2009). The primary focus has been to check the validity of the law of one price in a monetary union. Several factors have been cited - national policies designed by the government; economic, institutional and financial structures; differences in product and factor markets and the stage of economic development that the region is going through (Hendriks and Chapple, 2002). Regions with high shares of food in consumption baskets as well as those that are heavily dependent on importing food tend to experience higher inflation than other regions.

Analysis of inflation dispersion in the Euro area during 1980-2004 has found evidence supporting the convergence hypothesis – an indication of the

role played by the exchange rate mechanism (ERM) (Busetti *et al.*, 2007). A single monetary policy for the Euro area appears to have helped to stabilise inflation across member countries to a large extent. Evidence of divergence was also found, with inflation differentials across European regions observed to be large and also long-lasting (Beck *et al.*, 2005; 2009). By contrast, price levels among cities in the US are observed to revert to mean at an exceptionally slow rate (Cecchetti *et al.*, 2002), while socio-economic factors like income, wages, demographic structure and housing price growth explain regional price dispersions in Korea (Chang and Kim, 2017). Regional inflation and its volatility were higher in the post South-East Asian crisis period (September 1999 - July 2006) among 26 regions in Indonesia than during the pre-crisis years (Wimanda, 2006). For OECD economies, the adoption of inflation targeting contributed to a higher degree of disinflation (Ball and Sheridan, 2004).

For India, significant cross-sectional dependence in prices across regions is observed for data on centre-wise CPI for Industrial Workers (CPI-IW), although relative price levels in various regions tend to mean revert (Das and Bhattacharya, 2008). The strengthening of institutions on spatial competition – product market reform (measured by state easing barriers to entrepreneurship and opening up to international trade and investment) – could lead to convergence of inflation among states (Pillai *et al.*, 2012).

IV. Testing for Convergence

Given that food inflation spread drives the overall inflation spread as discussed earlier and that the food inflation spread fluctuates within a narrower range than spreads in respect of other components of inflation (Table 3), the estimated kernel density (Epanechnikov kernel, bandwidth = 0.40) of the annual average deviations of the regional inflation rates from the all-India average between April 2012 and March 2018 moves in a range of about 15 percentage

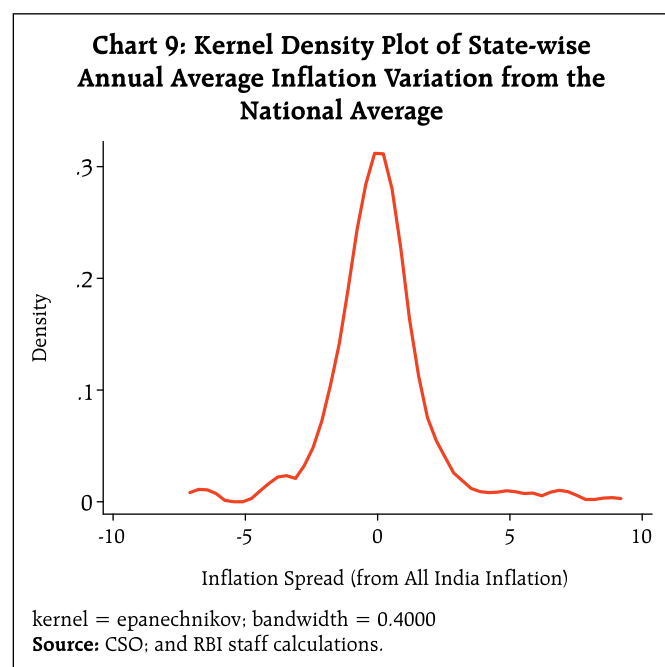
**Table 3: Inflation – Minimum, Maximum and Average Inflation Spread Volatility across States
(April 2012 to March 2018)**

Sub-groups	Minimum Inflation (in per cent)	Maximum Inflation (in per cent)	Difference between Maximum and Minimum	Inflation Spread Volatility (in percentage points)
Food and beverages (45.9)	5.8	8.7	2.9	0.67
Pan. tobacco and intoxicants (2.4)	5.1	13.2	8.1	1.36
Clothing and footwear (6.5)	5.0	10.2	5.2	1.03
Housing (10.1)	3.4	9.0	5.6	1.39
Fuel and light (6.8)	-0.1	11.0	11.1	2.06
Miscellaneous (28.3)	2.9	6.8	3.9	0.83
CPI-C (100)	5.4	7.9	2.5	0.60

Note: Figures in parentheses indicate the group's weight in overall CPI-C. Inflation spread volatility is measured by the cross-sectional standard deviation of inflation divergence from all-India average.

Source: CSO; and RBI staff estimates.

points in the inflation spread experienced by different states in India (Chart 9)⁵. Further, the plot is more or less symmetric, implying that state-level inflation rates tend towards the national average inflation. The distribution also seems to be quite leptokurtic in nature, which could be due to the role of local price shocks in a few states in certain periods.



⁵ A kernel density plot is equivalent to a smoothed histogram. Histograms are limited by the fact that they are inherently discrete (*via* bins) and can be very sensitive to bin size. A kernel density estimation, on the other hand, is a non-parametric way of estimating the probability density function of a random variable. The area under the curve between any two data points, say x_1 and x_2 , estimates the probability of the random variable X falling between x_1 and x_2 , assuming that X was generated by the same process that generated the data which was fed into the kernel density estimate.

This observation seems to be validated by trends in cross-sectional variability in inflation differentials and the average inflation differentials (Chart 10).

Against this backdrop, inflation convergence is tested in a random effects panel regression model (Table 4). As the Breusch-Pagan Lagrange Multiplier (LM) test suggests that an OLS regression is better suited than a random effects panel regression, the OLS results are also reported as a robustness check here (Table 5). The most widely used measures of convergence available in the literature are beta (β)-convergence and sigma (σ)-convergence (Busetti *et al.*, 2007; Lopez and Papell, 2012; Barro and Sala-i-Martin, 1992; Mankiw *et al.*, 1992). σ -convergence occurs when the dispersion of the levels of a given variable between

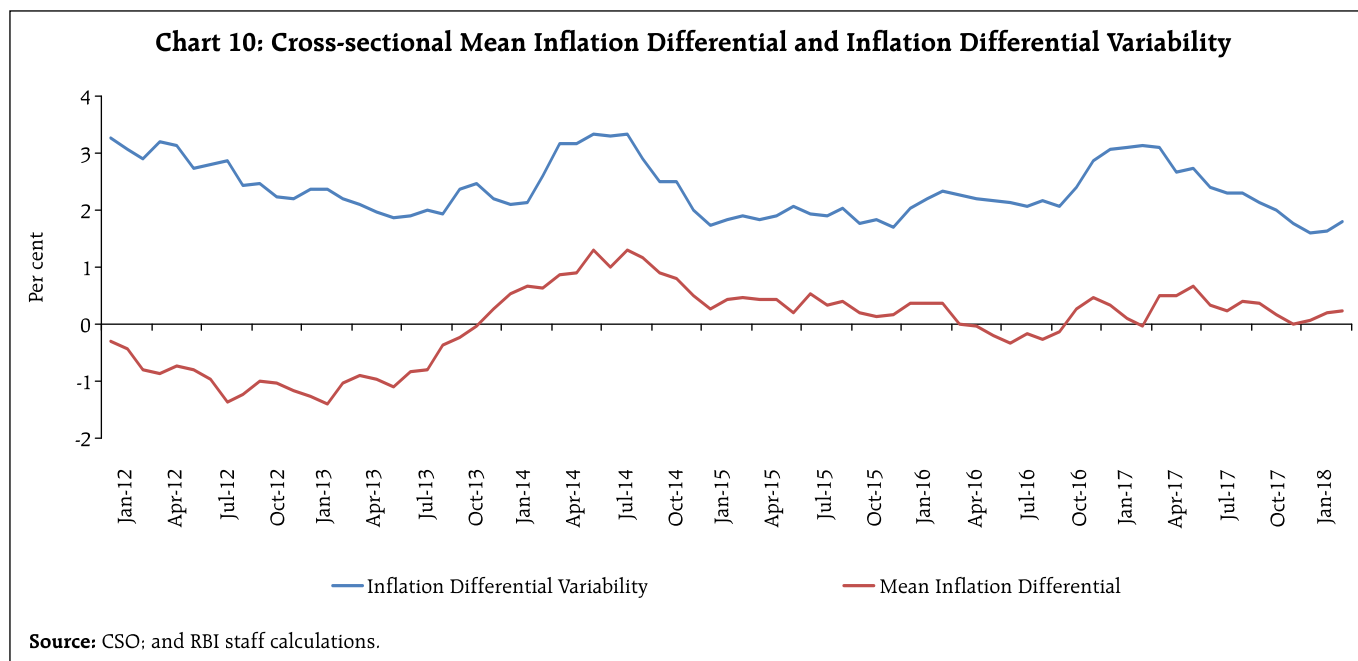
Table 4: Results of the Beta Convergence Test⁶

Explanatory Variables	Dependent Variable: Δ Inflation Spread (36 States and UTs; Period : 2012-13 to 2017-18)	
	Coefficient	Z-value
$inflation\ spread_{t-1}$	-0.77	-6.06***
<i>constant</i>	0.24	2.16**
No. of observations	180	
Wald $\chi^2(1)$	36.75***	
R-squared	Within: 0.45; Between: 0.19; Overall: 0.41.	

Note: ***, ** and * represent levels of significance at 1 per cent, 5 per cent and 10 per cent, respectively.

Source: RBI staff estimates.

⁶ Coefficients and Z values correspond to robust standard errors. A random effects generalized least squares regression was carried out. The choice between random effects and fixed effects panel estimation was based on the Hausman test.



different regions tends to decrease over time. In contrast, β convergence allows the identification of the speed with which shocks dissipate across regions even as the variable of interest converges towards a common benchmark (Beck and Weber, 2005)⁷. β convergence requires the estimation of the following equation:

$$\Delta \text{inflation spread}_{it} = \alpha + \beta \text{inflation spread}_{it-1} + \varepsilon_{it}$$

where, Δ is the difference operator, inflation spread measures the difference between state inflation and all-

India inflation, i stands for state, t stands for year and ε is the error term. The size of β measures the speed of convergence, *i.e.*, the speed at which regional inflation rates converge to the national average. A negative β coefficient signals the existence of convergence and the closer the absolute value of the β coefficient is to 1, the higher is the speed of convergence. The results of our analysis confirm the existence of beta convergence, *i.e.*, convergence of regional inflation towards the national average (Tables 4 and 5).

This inherent tendency of convergence of state level inflation to the national average supports the adoption of the national level CPI inflation as the nominal anchor for the conduct of monetary policy in India.

V. Summary and Concluding Observations

Regional inflation dynamics in India are characterised by the presence of high dispersion in inflation across states, largely reflecting regional food inflation dynamics. It is not surprising, therefore, that the food inflation spread turns out to be the primary driver of the overall inflation spread across states in our findings.

Table 5: Results of the Beta Convergence Test

Explanatory Variables	Dependent Variable: Δ Inflation Spread (36 States and UTs; Period : 2012-13 to 2017-18)	
	Coefficient	t-value
$\text{inflation spread}_{it-1}$	-0.77	-6.85***
constant	0.24	1.85*
No. of observations	180	
F (1, 178)	46.90***	
Rsquared	0.4148	

Note: ***, ** and * represent levels of significance at 1 per cent, 5 per cent and 10 per cent, respectively.

Source: RBI staff estimates.

⁷ The literature also suggests bi-directional relationship between inflation and inflation volatility (the famous Friedman-Ball and Cukierman-Meltzer hypotheses cited in footnote 3).

The stylised facts pointing to co-movement in overall inflation across states with the all-India headline inflation are corroborated by the symmetric distribution of annual average inflation across states represented through a Kernel density function and the stationarity of the trend of cross-sectional mean inflation differentials and inflation differential variability. β convergence test confirms a reasonable pace of reversion of inflation across states towards the national average. These findings underpin the choice of the national-level CPI inflation as the nominal anchor under India's flexible inflation targeting framework.

References

- Ball, L. M. and N. Sheridan (2004), "Does Inflation Targeting Matter?" in 'The Inflation-Targeting Debate', NBER Chapters, National Bureau of Economic Research, pp. 249–282.
- Barro, Robert. J. and Xavier Sala-i-Martin (1992), "Convergence", *Journal of Political Economy*, 100(2): 223-251.
- Beck, Guenter W. and Axel A. Weber (2005), "Price Stability, Inflation Convergence and Diversity in EMU: Does One Size Fit All?", *Centre for Financial Studies Working Paper No. 2005/30*, November.
- Beck, Guenter W., Kirstin Hubrich and Massimiliano Marcellino (2009), "Regional Inflation Dynamics Within and Across Euro Area Countries and a Comparison with the United States", *Economic Policy*, January, pp. 141–184.
- Buseti, F., F. Forni, A. Harvey and F. Venditti (2007), "Inflation Convergence and Divergence within the European Monetary Union", *International Journal of Central Banking*, June.
- Cecchetti, Stephen G., Nelson C. Mark and Robert J. Sonora (2002), "Price Index Convergence among United States Cities", *International Economic Review*, 43(4), November.
- Chang, Eu Joon and Young Se Kim (2017), "Regional Relative Price Disparities and Their Driving Forces", *East Asian Economic Review*, September, 21(3): 201–230.
- Das, S. and K. Bhattacharya (2008), "Price Convergence across Regions in India", *Empirical Economics* 34: 299–313.
- Hendriks, M. and B. Chapple (2002), "Regional Inflation Divergence in the Context of EMU," MEB Series (discontinued) 2002-19, Netherlands Central Bank, Monetary and Economic Policy Department.
- Hossain, Akhand Akhtar and Popkarn Arwathanakarn (2016), "Inflation and Inflation Volatility in Thailand", *Applied Economics*, 48(30): 2792-2806.
- Kim, Dong-Hyeon and Shu-Chin Lin (2012), "Inflation and Inflation Volatility Revisited", *International Finance*, 15(3):327-345.
- Lopez, C. and D.H Papell (2012), "Convergence of Euro Area Inflation Rates", *Journal of International Money and Finance*, Elsevier, 31(6):1440-1458.
- Mankiw, N.G., D. Romer and D. N. Weil (1992), "A Contribution to the Empirics of Economic Growth", *The Quarterly Journal of Economics*, 107 (2): pp. 407-437.
- Patra, M.D (2017), "One Year in the Life of India's Monetary Policy Committee", Speech delivered at the Jaipur Regional Office of RBI, Jaipur, October 27.
- Pillai, P.M., N. Shanta and K. Pushpangadan (2012), "Inflation in India - What do the Data Reveal about Regional Dimensions?", Growth Development and Diversity, Oxford University Press.
- Weyerstrass, K., B. Aarle, M. Kappler and A. Seymen (2011), "Business Cycle Synchronisation within the Euro Area: In Search of a 'Euro Effect'", *Open Economies Review*, 22(3): 427–446.
- Wimanda, R.E. (2006), "Regional Inflation in Indonesia: Characteristic, Convergence, and Determinants", *Working Paper No. 13*, Bank Indonesia.

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

No.	Title	Page
1	Select Economic Indicators	69
	Reserve Bank of India	
2	RBI – Liabilities and Assets	70
3	Liquidity Operations by RBI	71
4	Sale/ Purchase of U.S. Dollar by the RBI	72
4A	Maturity Breakdown (by Residual Maturity) of Outstanding Forwards of RBI (US\$ Million)	73
5	RBI's Standing Facilities	73
	Money and Banking	
6	Money Stock Measures	74
7	Sources of Money Stock (M ₃)	75
8	Monetary Survey	76
9	Liquidity Aggregates	76
10	Reserve Bank of India Survey	77
11	Reserve Money – Components and Sources	77
12	Commercial Bank Survey	78
13	Scheduled Commercial Banks' Investments	78
14	Business in India – All Scheduled Banks and All Scheduled Commercial Banks	79
15	Deployment of Gross Bank Credit by Major Sectors	80
16	Industry-wise Deployment of Gross Bank Credit	81
17	State Co-operative Banks Maintaining Accounts with the Reserve Bank of India	82
	Prices and Production	
18	Consumer Price Index (Base: 2012=100)	83
19	Other Consumer Price Indices	83
20	Monthly Average Price of Gold and Silver in Mumbai	83
21	Wholesale Price Index	84
22	Index of Industrial Production (Base: 2011-12=100)	87
	Government Accounts and Treasury Bills	
23	Union Government Accounts at a Glance	87
24	Treasury Bills – Ownership Pattern	88
25	Auctions of Treasury Bills	88
	Financial Markets	
26	Daily Call Money Rates	89
27	Certificates of Deposit	90
28	Commercial Paper	90
29	Average Daily Turnover in Select Financial Markets	90
30	New Capital Issues by Non-Government Public Limited Companies	91

No.	Title	Page
External Sector		
31	Foreign Trade	92
32	Foreign Exchange Reserves	92
33	NRI Deposits	92
34	Foreign Investment Inflows	93
35	Outward Remittances under the Liberalised Remittance Scheme (LRS) for Resident Individuals	93
36	Indices of Real Effective Exchange Rate (REER) and Nominal Effective Exchange Rate (NEER) of the Indian Rupee	94
37	External Commercial Borrowings (ECBs)	94
38	India's Overall Balance of Payments (US \$ Million)	95
39	India's Overall Balance of Payments (₹ Billion)	96
40	Standard Presentation of BoP in India as per BPM6 (US \$ Million)	97
41	Standard Presentation of BoP in India as per BPM6 (₹ Billion)	98
42	International Investment Position	99
Payment and Settlement Systems		
43	Payment System Indicators	100
Occasional Series		
44	Small Savings	101
45	Ownership Pattern of Central and State Governments Securities	102
46	Combined Receipts and Disbursements of the Central and State Governments	103
47	Financial Accommodation Availed by State Governments under various Facilities	104
48	Investments by State Governments	105
49	Market Borrowings of State Governments	106

Notes: .. = Not available.

– = Nil/Negligible.

P = Preliminary/Provisional. PR = Partially Revised.

No. 1: Select Economic Indicators

Item	2017-18	2016-17	2017-18		2018-19
		Q4	Q1	Q4	Q1
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	6.5	6.0	5.6	7.6	8.0
1.1.1 Agriculture	3.4	7.1	3.0	4.5	5.3
1.1.2 Industry	5.5	8.1	-0.4	8.0	10.8
1.1.3 Services	7.6	4.9	8.5	8.2	7.5
1.1a Final Consumption Expenditure	7.2	6.4	8.7	8.1	8.4
1.1b Gross Fixed Capital Formation	7.6	6.0	0.8	14.4	10.0
	2017-18	2017		2018	
		Aug.	Sep.	Aug.	Sep.
	1	2	3	4	5
1.2 Index of Industrial Production	4.4	4.8	4.1	4.3	-
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	6.2	8.9	8.2	8.9	8.1
2.1.2 Credit	10.0	6.2	6.5	13.4	12.5
2.1.2.1 Non-food Credit	10.2	7.1	7.1	13.5	12.6
2.1.3 Investment in Govt. Securities	9.5	16.6	16.4	5.1	3.7
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	27.4	-5.1	-4.0	19.3	18.6
2.2.2 Broad Money (M3)	9.2	6.7	5.6	10.8	9.4
3 Ratios (%)					
3.1 Cash Reserve Ratio	4.00	4.00	4.00	4.00	4.00
3.2 Statutory Liquidity Ratio	19.50	20.00	20.00	19.50	19.50
3.3 Cash-Deposit Ratio	5.1	5.0	4.9	4.7	4.9
3.4 Credit-Deposit Ratio	75.5	72.6	73.1	75.4	76.1
3.5 Incremental Credit-Deposit Ratio	117.3	**	88.8	70.5	95.3
3.6 Investment-Deposit Ratio	29.0	31.0	30.5	30.1	29.2
3.7 Incremental Investment-Deposit Ratio	43.0	*	184.4	84.4	34.5
4 Interest Rates (%)					
4.1 Policy Repo Rate	6.00	6.00	6.00	6.50	6.50
4.2 Reverse Repo Rate	5.75	5.75	5.75	6.25	6.25
4.3 Marginal Standing Facility (MSF) Rate	6.25	6.25	6.25	6.75	6.75
4.4 Bank Rate	6.25	6.25	6.25	6.75	6.75
4.5 Base Rate	8.65/9.45	9.00/9.55	9.00/9.55	8.75/9.45	8.85/9.45
4.6 MCLR (Overnight)	7.80/7.95	7.75/8.10	7.75/8.10	7.90/8.05	7.90/8.30
4.7 Term Deposit Rate >1 Year	6.25/6.75	6.25/6.75	6.25/6.75	6.25/7.25	6.25/7.25
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)	6.15	5.93	5.88	6.36	6.49
4.10 91-Day Treasury Bill (Primary) Yield	6.11	6.11	6.11	6.81	7.19
4.11 182-Day Treasury Bill (Primary) Yield	6.33	6.22	6.22	7.02	7.42
4.12 364-Day Treasury Bill (Primary) Yield	6.49	6.25	6.24	7.33	7.73
4.13 10-Year G-Sec Par Yield (FBIL)	7.42	6.65	6.83	7.95	8.00
5 Reference Rate and Forward Premia					
5.1 INR-US\$ Spot Rate (Rs. Per Foreign Currency)	65.04	64.07	65.36	70.93	72.55
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	80.62	75.58	77.06	82.84	84.44
5.3 Forward Premia of US\$ 1-month (%)	4.61	4.68	4.96	4.40	4.96
3-month (%)	4.37	4.53	4.28	4.34	4.58
6-month (%)	4.21	4.48	4.19	4.22	4.36
6 Inflation (%)					
6.1 All India Consumer Price Index	3.6	3.3	3.3	3.7	3.8
6.2 Consumer Price Index for Industrial Workers	3.1	2.5	2.9	5.6	5.6
6.3 Wholesale Price Index	2.9	3.2	3.1	4.5	5.1
6.3.1 Primary Articles	1.4	3.0	0.7	-0.2	3.0
6.3.2 Fuel and Power	8.2	9.9	10.5	17.7	16.7
6.3.3 Manufactured Products	2.7	2.4	3.0	4.4	4.2
7 Foreign Trade (% Change)					
7.1 Imports	20.9	23.1	19.2	25.6	10.5
7.2 Exports	10.0	8.1	25.5	19.5	-2.3

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.

** Denominator and numerator negative.

* Denominator negative/negligible.

Reserve Bank of India

No. 2: RBI - Liabilities and Assets *

(₹ Billion)

Item	As on the Last Friday/ Friday						
	2017-18	2017	2018				
			Oct.	Sep. 28	Oct. 5	Oct. 12	
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	18,044.20	16,091.94	18,995.47	19,106.45	19,309.85	19,430.65	19,355.66
1.1.2 Notes held in Banking Department	0.15	0.16	0.13	0.13	0.13	0.12	0.12
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	18,044.35	16,092.10	18,995.60	19,106.58	19,309.98	19,430.77	19,355.78
1.2 Assets							
1.2.1 Gold Coin and Bullion	733.81	727.46	720.80	735.62	735.62	735.62	735.62
1.2.2 Foreign Securities	17,303.70	15,356.67	18,265.75	18,361.95	18,565.46	18,686.31	18,611.42
1.2.3 Rupee Coin	6.84	7.97	9.05	9.01	8.90	8.84	8.74
1.2.4 Government of India Rupee Securities	–	–	–	–	–	–	–
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	9,854.76	8,149.29	7,210.22	7,249.10	6,375.21	6,065.40	6,229.78
2.1.1.1 Central Government	68.08	1.01	1.00	1.01	1.00	1.00	1.00
2.1.1.2 Market Stabilisation Scheme	–	946.73	–	–	–	–	–
2.1.1.3 State Governments	6.51	0.42	0.43	0.42	0.42	0.43	0.43
2.1.1.4 Scheduled Commercial Banks	5,256.86	4,370.59	5,051.27	4,829.04	4,738.89	5,101.40	4,747.61
2.1.1.5 Scheduled State Co-operative Banks	48.28	34.01	35.76	36.06	36.27	34.54	34.59
2.1.1.6 Non-Scheduled State Co-operative Banks	25.49	17.54	21.36	20.13	21.22	19.99	19.89
2.1.1.7 Other Banks	305.66	255.32	285.71	278.31	278.70	279.45	278.07
2.1.1.8 Others	4,143.88	2,523.65	1,800.20	2,084.13	1,284.12	621.18	1,140.76
2.1.1.9 Financial Institution Outside India	–	–	14.49	–	14.59	7.41	7.43
2.1.2 Other Liabilities	9,141.27	8,876.17	11,294.72	11,662.02	11,780.88	11,619.26	11,521.38
2.1/2.2 Total Liabilities or Assets	18,996.03	17,025.46	18,504.94	18,911.12	18,156.09	17,684.66	17,751.16
2.2 Assets							
2.2.1 Notes and Coins	0.15	0.16	0.13	0.13	0.13	0.12	0.12
2.2.2 Balances held Abroad	8,887.95	9,207.53	9,276.52	9,497.31	8,989.93	8,666.82	8,614.53
2.2.3 Loans and Advances							
2.2.3.1 Central Government	–	–	–	597.69	368.49	–	–
2.2.3.2 State Governments	7.39	2.53	2.45	64.37	68.79	70.47	17.82
2.2.3.3 Scheduled Commercial Banks	2,739.78	327.40	1,796.16	1,338.42	1,170.69	1,274.52	1,326.08
2.2.3.4 Scheduled State Co-op.Banks	0.35	–	0.35	–	–	–	–
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	106.75	48.34	58.24	53.07	55.55	58.60	58.80
2.2.3.9 Financial Institution Outside India	–	–	14.49	–	14.59	7.41	7.43
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	–	–	–	–	–	–	–
2.2.4.2 Government Treasury Bills	–	–	–	–	–	–	–
2.2.5 Investments	6,369.76	6,734.24	6,558.79	6,543.40	6,663.58	6,781.87	6,896.53
2.2.6 Other Assets	883.90	705.26	797.81	816.73	824.34	824.85	829.85
2.2.6.1 Gold	673.37	660.72	727.26	748.03	753.28	753.28	753.28

* 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
Sep. 1, 2018	29.24	54.89	-	-	0.01	-	-	-	-	-	-25.64
Sep. 3, 2018	39.21	411.59	40.92	274.24	11.00	-4.15	-	-	-	-	-598.85
Sep. 4, 2018	34.71	314.92	-	151.45	-	-3.24	-	-	-	-	-434.90
Sep. 5, 2018	35.91	272.96	-	177.23	0.30	-	-	-	-	-	-413.98
Sep. 6, 2018	38.46	312.69	-	133.09	-	-2.64	-	-	-	-	-409.96
Sep. 7, 2018	39.56	132.00	51.24	107.85	1.20	-	-	-	-	-	-147.85
Sep. 10, 2018	246.84	76.59	-	-	61.10	-	-	-	-	-	231.35
Sep. 11, 2018	155.79	293.00	475.04	-	1.01	2.42	-	-	-	-	341.26
Sep. 12, 2018	36.96	122.55	-	275.09	0.84	-	-	-	-	-	-359.84
Sep. 13, 2018	-	216.12	-	-	9.60	-	-	-	-	-	-206.52
Sep. 14, 2018	39.56	593.20	235.03	-	3.00	2.18	-	-	0.10	-	-313.33
Sep. 15, 2018	230.50	22.92	-	-	203.35	-	-	-	-	-	410.93
Sep. 17, 2018	202.56	99.30	300.04	-	26.00	-	-	-	-	-	429.30
Sep. 18, 2018	86.60	56.26	230.01	-	1.50	-	-	-	-	-	261.85
Sep. 19, 2018	49.95	46.71	-	-	3.40	-	-	-	-	-	6.64
Sep. 20, 2018	-	49.42	-	-	37.15	-	-	-	-	-	-12.27
Sep. 21, 2018	40.06	151.68	230.07	-	3.00	-	-	-	100.00	-	221.45
Sep. 24, 2018	106.51	297.15	158.00	-	0.01	-1.20	-	-	-	-	-33.83
Sep. 25, 2018	39.36	785.95	480.05	-	2.35	1.20	-	-	-	-	-262.99
Sep. 26, 2018	37.46	1,205.15	-	-	-	-	-	-	-	-	-1,167.69
Sep. 27, 2018	39.21	984.36	-	481.05	0.81	-0.75	-	-	-	-	-1,426.14
Sep. 28, 2018	47.41	949.01	97.77	-	42.00	1.30	-	-	100.00	-	-660.53
Sep. 29, 2018	41.26	453.35	-	-	70.90	-	-	-	-	-	-341.19

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

Item	As on September 30, 2018		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	545	682	-137
2. More than 1 month and upto 3 months	1,823	1,736	87
3. More than 3 months and upto 1 year	8,462	9,770	-1,308
4. More than 1 year	0	0	0
Total (1+2+3+4)	10,830	12,188	-1,358

No. 5: RBI's Standing Facilities

(₹ Billion)

Item	As on the Last Reporting Friday							
	2017-18	2017	2018					
			Oct. 27	May 25	Jun. 22	Jul. 20	Aug. 31	Sep. 28
	1	2	3	4	5	6	7	8
1 MSF	–	–	–	20.4	29.8	1.3	42.0	–
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit	–	–	–	–	–	–	–	–
2.2 Outstanding	–	–	–	–	–	–	–	–
3 Liquidity Facility for PDs								
3.1 Limit	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
3.2 Outstanding	25.4	19.4	23.3	23.9	24.3	23.9	19.0	20.3
4 Others								
4.1 Limit	–	–	–	–	–	–	–	–
4.2 Outstanding	–	–	–	–	–	–	–	–
5 Total Outstanding (1+2.2+3.2+4.2)	25.4	19.4	23.3	44.4	54.2	25.1	61.0	20.3

Money and Banking

No. 6: Money Stock Measures

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2017-18	2017	2018		
		Sep. 29	Aug. 31	Sep. 14	Sep. 28
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	17,597.1	14,970.3	18,468.4	18,701.6	18,429.4
1.1 Notes in Circulation	18,037.0	15,632.5	19,019.4	19,228.5	18,995.5
1.2 Circulation of Rupee Coin	249.1	247.4	249.5	249.5	249.5
1.3 Circulation of Small Coins	7.4	7.4	7.4	7.4	7.4
1.4 Cash on Hand with Banks	696.4	917.0	807.9	783.8	823.1
2 Deposit Money of the Public	15,076.2	13,760.0	13,667.1	13,243.5	14,487.8
2.1 Demand Deposits with Banks	14,837.1	13,503.1	13,420.4	12,959.3	14,232.0
2.2 'Other' Deposits with Reserve Bank	239.1	256.9	246.7	284.2	255.8
3 M₁ (1 + 2)	32,673.3	28,730.3	32,135.5	31,945.2	32,917.1
4 Post Office Saving Bank Deposits	1,092.1	981.1	1,206.6	1,206.6	1,206.6
5 M₂ (3 + 4)	33,765.4	29,711.4	33,342.1	33,151.7	34,123.7
6 Time Deposits with Banks	106,952.6	103,113.0	110,578.5	110,206.6	111,312.0
7 M₃ (3 + 6)	139,625.9	131,843.3	142,714.0	142,151.7	144,229.1
8 Total Post Office Deposits	3,008.1	2,752.4	3,266.8	3,266.8	3,266.8
9 M₄ (7 + 8)	142,633.9	134,595.7	145,980.7	145,418.5	147,495.9

No. 7: Sources of Money Stock (M₃)

(₹ Billion)

Sources	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2017-18	2017	2018		
			Sep. 29	Aug. 31	Sep. 14
	1	2	3	4	5
1 Net Bank Credit to Government	40,014.0	40,773.0	43,947.1	43,625.0	43,020.0
1.1 RBI's net credit to Government (1.1.1-1.1.2)	4,759.6	5,428.9	6,834.6	6,653.4	6,469.9
1.1.1 Claims on Government	6,435.6	6,967.3	6,836.0	6,654.8	6,536.6
1.1.1.1 Central Government	6,418.4	6,950.9	6,831.5	6,602.8	6,534.1
1.1.1.2 State Governments	17.2	16.4	4.5	52.0	2.5
1.1.2 Government deposits with RBI	1,676.0	1,538.4	1.4	1.4	66.7
1.1.2.1 Central Government	1,675.6	1,538.0	1.0	1.0	66.2
1.1.2.2 State Governments	0.4	0.4	0.4	0.4	0.4
1.2 Other Banks' Credit to Government	35,254.4	35,344.1	37,112.5	36,971.6	36,550.1
2 Bank Credit to Commercial Sector	92,137.2	85,519.8	93,689.9	93,867.1	95,719.0
2.1 RBI's credit to commercial sector	140.3	74.4	95.4	91.2	91.3
2.2 Other banks' credit to commercial sector	91,996.9	85,445.5	93,594.5	93,775.9	95,627.7
2.2.1 Bank credit by commercial banks	86,254.2	79,834.4	87,807.5	87,981.1	89,816.7
2.2.2 Bank credit by co-operative banks	5,666.0	5,529.7	5,701.6	5,711.6	5,720.6
2.2.3 Investments by commercial and co-operative banks in other securities	76.7	81.4	85.5	83.2	90.5
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	29,223.0	27,354.6	29,574.2	29,938.3	30,225.2
3.1 RBI's net foreign exchange assets (3.1.1-3.1.2)	27,607.8	26,078.3	28,337.2	28,701.2	28,988.2
3.1.1 Gross foreign assets	27,609.9	26,080.3	28,339.3	28,703.4	28,990.3
3.1.2 Foreign liabilities	2.1	1.9	2.1	2.1	2.1
3.2 Other banks' net foreign exchange assets	1,615.1	1,276.3	1,237.0	1,237.0	1,237.0
4 Government's Currency Liabilities to the Public	256.5	254.8	257.0	257.0	257.0
5 Banking Sector's Net Non-monetary Liabilities	22,004.8	22,059.0	24,754.1	25,535.6	24,992.1
5.1 Net non-monetary liabilities of RBI	9,069.9	9,055.4	10,606.8	10,976.0	11,271.0
5.2 Net non-monetary liabilities of other banks (residual)	12,934.9	13,003.7	14,147.3	14,559.6	13,721.1
M₃ (1+2+3+4-5)	139,625.9	131,843.3	142,714.0	142,151.7	144,229.1

No. 8: Monetary Survey

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2017-18	2017	2018		
		Sep. 29	Aug. 31	Sep. 14	Sep. 28
	1	2	3	4	5
Monetary Aggregates					
NM ₁ (1.1 + 1.2.1+1.3)	32,673.3	28,730.3	32,135.5	31,945.2	32,917.1
NM ₂ (NM ₁ + 1.2.2.1)	80,142.1	74,524.3	81,160.0	80,793.7	82,260.0
NM ₃ (NM ₂ + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	141,816.7	133,583.8	144,701.9	144,129.3	146,318.1
1 Components					
1.1 Currency with the Public	17,597.1	14,970.3	18,468.4	18,701.6	18,429.4
1.2 Aggregate Deposits of Residents	120,323.4	115,267.4	122,363.6	121,511.6	123,882.7
1.2.1 Demand Deposits	14,837.1	13,503.1	13,420.4	12,959.3	14,232.0
1.2.2 Time Deposits of Residents	105,486.3	101,764.3	108,943.2	108,552.3	109,650.7
1.2.2.1 Short-term Time Deposits	47,468.8	45,793.9	49,024.4	48,848.5	49,342.8
1.2.2.1.1 Certificates of Deposit (CDs)	1,931.1	1,157.0	1,688.6	1,905.7	1,598.6
1.2.2.2 Long-term Time Deposits	58,017.4	55,970.4	59,918.8	59,703.7	60,307.9
1.3 'Other' Deposits with RBI	239.1	256.9	246.7	284.2	255.8
1.4 Call/Term Funding from Financial Institutions	3,657.1	3,089.2	3,623.2	3,631.9	3,750.2
2 Sources					
2.1 Domestic Credit	139,941.3	132,764.0	146,239.2	145,987.8	146,725.6
2.1.1 Net Bank Credit to the Government	40,014.0	40,773.0	43,947.1	43,625.0	43,020.0
2.1.1.1 Net RBI credit to the Government	4,759.6	5,428.9	6,834.6	6,653.4	6,469.9
2.1.1.2 Credit to the Government by the Banking System	35,254.4	35,344.1	37,112.5	36,971.6	36,550.1
2.1.2 Bank Credit to the Commercial Sector	99,927.3	91,991.0	102,292.1	102,362.8	103,705.6
2.1.2.1 RBI Credit to the Commercial Sector	140.3	74.4	95.4	91.2	91.3
2.1.2.2 Credit to the Commercial Sector by the Banking System	99,787.1	91,916.6	102,196.8	102,271.6	103,614.3
2.1.2.2.1 Other Investments (Non-SLR Securities)	7,728.5	6,423.6	8,510.7	8,389.2	7,916.0
2.2 Government's Currency Liabilities to the Public	256.5	254.8	257.0	257.0	257.0
2.3 Net Foreign Exchange Assets of the Banking Sector	26,931.6	25,594.4	27,071.1	27,565.4	27,903.6
2.3.1 Net Foreign Exchange Assets of the RBI	27,607.8	26,078.3	28,337.2	28,701.2	28,988.2
2.3.2 Net Foreign Currency Assets of the Banking System	-676.2	-483.9	-1,266.1	-1,135.8	-1,084.6
2.4 Capital Account	20,705.2	19,907.6	23,318.2	23,678.8	24,020.2
2.5 Other items (net)	4,607.6	5,121.8	5,547.1	6,002.1	4,547.9

No. 9: Liquidity Aggregates

(₹ Billion)

Aggregates	2017-18	2017	2018		
	1	Sep.	Jul.	Aug.	Sep.
		2	3	4	5
1 NM₃	141,816.7	133,583.8	142,652.1	144,701.9	146,318.1
2 Postal Deposits	3,008.1	2,752.4	3,217.0	3,266.8	3,266.8
3 L₁ (1 + 2)	144,824.7	136,336.3	145,869.1	147,968.7	149,584.9
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 L₂ (3 + 4)	144,854.0	136,365.6	145,898.4	147,998.0	149,614.2
6 Public Deposits with Non-Banking Financial Companies	313.6	313.6	313.6
7 L₃ (5 + 6)	145,167.7	136,679.2	149,927.8

No. 10: Reserve Bank of India Survey

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2017-18	2017	2018		
		Sep. 29	Aug. 31	Sep. 14	Sep. 28
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	18,293.5	15,887.3	19,276.3	19,485.5	19,252.4
1.2 Bankers' Deposits with the RBI	5,655.3	4,844.8	5,086.6	5,169.8	5,394.1
1.2.1 Scheduled Commercial Banks	5,269.1	4,534.1	4,754.6	4,825.4	5,051.3
1.3 'Other' Deposits with the RBI	239.1	256.9	246.7	284.2	255.8
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 - 2.4 - 2.5)	24,187.8	20,988.9	24,609.6	24,939.5	24,902.3
2 Sources					
2.1 RBI's Domestic Credit	5,393.4	3,711.2	6,622.3	6,957.3	6,928.1
2.1.1 Net RBI credit to the Government	4,759.6	5,428.9	6,834.6	6,653.4	6,469.9
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)	4,742.9	5,413.0	6,830.5	6,601.8	6,467.9
2.1.1.1.1 Loans and Advances to the Central Government	-	-	439.9	210.2	-
2.1.1.1.2 Investments in Treasury Bills	-	-	-	-	-
2.1.1.1.3 Investments in dated Government Securities	6,411.5	6,942.4	6,382.4	6,383.5	6,525.1
2.1.1.1.3.1 Central Government Securities	6,411.5	6,942.4	6,382.4	6,383.5	6,525.1
2.1.1.1.4 Rupee Coins	6.9	8.5	9.2	9.1	9.1
2.1.1.1.5 Deposits of the Central Government	1,675.6	1,538.0	1.0	1.0	66.2
2.1.1.2 Net RBI credit to State Governments	16.8	15.9	4.0	51.6	2.0
2.1.2 RBI's Claims on Banks	493.5	-1,792.1	-307.7	212.7	366.9
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	493.5	-1,792.1	-308.0	212.4	366.6
2.1.3 RBI's Credit to Commercial Sector	140.3	74.4	95.4	91.2	91.3
2.1.3.1 Loans and Advances to Primary Dealers	25.4	19.3	23.9	18.5	19.0
2.1.3.2 Loans and Advances to NABARD	-	-	-	-	-
2.2 Government's Currency Liabilities to the Public	256.5	254.8	257.0	257.0	257.0
2.3 Net Foreign Exchange Assets of the RBI	27,607.8	26,078.3	28,337.2	28,701.2	28,988.2
2.3.1 Gold	1,397.4	1,324.6	1,430.0	1,445.5	1,448.1
2.3.2 Foreign Currency Assets	26,210.6	24,753.9	26,907.3	27,255.9	27,540.3
2.4 Capital Account	8,584.3	8,413.6	10,415.5	10,773.3	11,065.6
2.5 Other Items (net)	485.6	641.8	191.3	202.7	205.4

No. 11: Reserve Money - Components and Sources

(₹ Billion)

Item	Outstanding as on March 31/ last Fridays of the month/ Fridays						
	2017-18	2017	2018				
		Sep. 29	Aug. 31	Sep. 7	Sep. 14	Sep. 21	Sep. 28
	1	2	3	4	5	6	7
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 - 2.6)	24,187.8	20,988.9	24,609.6	24,570.6	24,939.5	24,892.8	24,902.3
1 Components							
1.1 Currency in Circulation	18,293.5	15,887.3	19,276.3	19,402.5	19,485.5	19,436.7	19,252.4
1.2 Bankers' Deposits with RBI	5,655.3	4,844.8	5,086.6	4,924.6	5,169.8	5,201.8	5,394.1
1.3 'Other' Deposits with RBI	239.1	256.9	246.7	243.5	284.2	254.3	255.8
2 Sources							
2.1 Net Reserve Bank Credit to Government	4,759.6	5,428.9	6,834.6	6,882.3	6,653.4	5,517.5	6,469.9
2.2 Reserve Bank Credit to Banks	493.5	-1,792.1	-307.7	-375.1	212.7	1,322.7	366.9
2.3 Reserve Bank Credit to Commercial Sector	140.3	74.4	95.4	86.6	91.2	91.2	91.3
2.4 Net Foreign Exchange Assets of RBI	27,607.8	26,078.3	28,337.2	28,647.8	28,701.2	28,808.2	28,988.2
2.5 Government's Currency Liabilities to the Public	256.5	254.8	257.0	257.0	257.0	257.0	257.0
2.6 Net Non- Monetary Liabilities of RBI	9,069.9	9,055.4	10,606.8	10,928.1	10,976.0	11,103.7	11,271.0

No. 12: Commercial Bank Survey

(₹ Billion)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2017-18	2017	2018		
		Sep. 29	Aug. 31	Sep. 14	Sep. 28
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	112,794.2	107,826.7	114,829.8	113,982.5	116,337.4
1.1.1 Demand Deposits	13,702.8	12,368.8	12,290.3	11,830.3	13,096.0
1.1.2 Time Deposits of Residents	99,091.4	95,457.9	102,539.5	102,152.2	103,241.4
1.1.2.1 Short-term Time Deposits	44,591.1	42,956.1	46,142.8	45,968.5	46,458.6
1.1.2.1.1 Certificates of Deposits (CDs)	1,931.1	1,157.0	1,688.6	1,905.7	1,598.6
1.1.2.2 Long-term Time Deposits	54,500.3	52,501.9	56,396.7	56,183.7	56,782.8
1.2 Call/Term Funding from Financial Institutions	3,657.1	3,089.2	3,623.2	3,631.9	3,750.2
2 Sources					
2.1 Domestic Credit	127,142.0	119,476.5	131,369.7	131,275.4	132,196.2
2.1.1 Credit to the Government	33,174.1	33,245.1	35,034.7	34,874.6	34,463.1
2.1.2 Credit to the Commercial Sector	93,967.9	86,231.5	96,335.1	96,400.8	97,733.1
2.1.2.1 Bank Credit	86,254.2	79,834.4	87,807.5	87,981.1	89,816.7
2.1.2.1.1 Non-food Credit	86,086.9	79,370.7	87,318.9	87,486.2	89,340.0
2.1.2.2 Net Credit to Primary Dealers	64.3	50.2	94.2	109.1	73.3
2.1.2.3 Investments in Other Approved Securities	10.5	12.9	12.3	11.0	16.8
2.1.2.4 Other Investments (in non-SLR Securities)	7,638.9	6,334.0	8,421.1	8,299.6	7,826.3
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	–676.2	–483.9	–1,266.1	–1,135.8	–1,084.6
2.2.1 Foreign Currency Assets	2,018.0	1,726.6	1,645.4	1,770.2	1,883.2
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	1,466.3	1,348.7	1,635.2	1,654.3	1,661.3
2.2.3 Overseas Foreign Currency Borrowings	1,227.9	861.9	1,276.2	1,251.7	1,306.6
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	5,321.8	7,144.4	5,772.3	5,298.2	5,409.8
2.3.1 Balances with the RBI	5,256.9	4,534.1	4,754.6	4,825.4	5,051.3
2.3.2 Cash in Hand	600.6	818.3	709.7	685.2	725.1
2.3.3 Loans and Advances from the RBI	535.7	–1,792.1	–308.0	212.4	366.6
2.4 Capital Account	11,879.3	11,252.3	12,661.0	12,663.8	12,712.9
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	3,457.1	3,968.7	4,761.9	5,159.5	3,720.9
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	4,360.8	4,008.2	3,929.3	4,434.4	3,718.9
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	–268.2	–291.2	–432.8	–397.6	–411.4

No. 13: Scheduled Commercial Banks' Investments

(₹ Billion)

Item	As on March 30, 2018	2017	2018		
		Sep. 29	Aug. 31	Sep. 14	Sep. 28
	1	2	3	4	5
1 SLR Securities	33,184.5	33,258.0	35,047.0	34,885.6	34,479.9
2 Commercial Paper	1,159.4	1,040.4	1,287.7	1,313.2	1,203.3
3 Shares issued by					
3.1 PSUs	118.7	110.8	113.7	113.5	112.2
3.2 Private Corporate Sector	745.3	677.9	726.5	728.7	731.9
3.3 Others	42.1	42.8	61.3	61.3	65.1
4 Bonds/Debentures issued by					
4.1 PSUs	1,399.7	1,121.4	1,270.4	1,231.5	1,231.0
4.2 Private Corporate Sector	2,222.3	1,822.7	2,247.0	2,246.4	2,247.1
4.3 Others	994.6	635.4	1,196.6	1,187.9	1,240.5
5 Instruments issued by					
5.1 Mutual funds	177.3	203.9	708.1	618.8	190.9
5.2 Financial institutions	895.8	787.4	815.8	798.2	804.3

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			
	2017-18	2017	2018		2017-18	2017	2018	
		Sep.	Aug.	Sep.		Sep.	Aug.	Sep.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	223	221	223	223	149	147	149	149
1 Liabilities to the Banking System	2,344.9	2,214.8	2,406.8	2,419.2	2,282.0	2,161.1	2,349.4	2,361.1
1.1 Demand and Time Deposits from Banks	1,667.5	1,577.1	1,531.5	1,532.1	1,615.6	1,525.4	1,485.0	1,486.5
1.2 Borrowings from Banks	611.7	545.0	717.9	772.6	601.2	544.5	708.7	761.4
1.3 Other Demand and Time Liabilities	65.7	92.6	157.3	114.5	65.2	91.2	155.7	113.3
2 Liabilities to Others	126,658.9	120,187.2	128,434.3	129,939.9	123,506.3	117,134.6	125,293.9	126,774.2
2.1 Aggregate Deposits	117,285.4	112,088.1	119,458.9	121,018.6	114,260.5	109,175.4	116,465.2	117,998.5
2.1.1 Demand	13,994.8	12,645.3	12,573.3	13,389.0	13,702.8	12,368.8	12,290.3	13,096.0
2.1.2 Time	103,290.6	99,442.7	106,885.6	107,629.7	100,557.7	96,806.6	104,174.8	104,902.7
2.2 Borrowings	3,693.9	3,125.1	3,671.7	3,803.5	3,657.1	3,089.2	3,623.2	3,750.2
2.3 Other Demand and Time Liabilities	5,679.7	4,974.0	5,303.7	5,117.8	5,588.7	4,870.0	5,205.5	5,025.4
3 Borrowings from Reserve Bank	2,740.1	405.3	617.0	1,796.5	2,739.8	405.3	616.6	1,796.2
3.1 Against Usance Bills /Promissory Notes	–	–	–	–	–	–	–	–
3.2 Others	2,740.1	405.3	617.0	1,796.5	2,739.8	405.3	616.6	1,796.2
4 Cash in Hand and Balances with Reserve Bank	6,029.2	5,489.9	5,606.0	5,919.5	5,857.5	5,352.3	5,464.3	5,776.3
4.1 Cash in Hand	616.3	836.4	728.1	743.0	600.65	818.3	709.7	725.1
4.2 Balances with Reserve Bank	5,412.9	4,653.6	4,877.9	5,176.5	5,256.9	4,534.1	4,754.6	5,051.3
5 Assets with the Banking System	3,011.8	2,927.9	3,227.1	3,195.8	2,614.6	2,502.6	2,876.4	2,845.8
5.1 Balances with Other Banks	2,041.9	2,018.7	2,128.7	2,057.6	1,860.5	1,823.4	1,958.3	1,884.4
5.1.1 In Current Account	156.0	188.5	120.0	129.8	123.1	157.1	96.4	102.3
5.1.2 In Other Accounts	1,885.9	1,830.2	2,008.7	1,927.7	1,737.4	1,666.2	1,861.9	1,782.1
5.2 Money at Call and Short Notice	360.5	386.0	459.1	459.2	182.4	230.1	314.8	324.1
5.3 Advances to Banks	284.1	259.8	342.6	397.4	282.0	258.7	339.5	387.8
5.4 Other Assets	325.3	263.5	296.7	281.6	289.6	190.4	263.9	249.4
6 Investment	34,124.7	34,220.4	35,991.7	35,434.2	33,184.5	33,258.0	35,047.0	34,479.9
6.1 Government Securities	34,067.4	34,158.4	35,925.5	35,363.2	33,174.1	33,245.1	35,034.6	34,463.1
6.2 Other Approved Securities	57.3	62.0	66.2	71.1	10.5	12.9	12.3	16.8
7 Bank Credit	88,785.3	82,287.6	90,393.8	92,470.3	86,254.2	79,834.4	87,807.5	89,816.7
7a Food Credit	611.4	655.2	718.8	706.9	419.9	463.7	488.5	476.6
7.1 Loans, Cash-credits and Overdrafts	86,451.5	80,047.2	88,195.5	90,152.5	83,984.8	77,651.4	85,657.0	87,544.9
7.2 Inland Bills-Purchased	230.3	212.0	214.4	216.5	203.9	200.2	198.6	202.6
7.3 Inland Bills-Discounted	1,417.3	1,364.6	1,384.3	1,442.3	1,387.5	1,325.0	1,359.9	1,417.8
7.4 Foreign Bills-Purchased	266.0	255.4	243.5	257.2	263.0	254.1	241.3	255.7
7.5 Foreign Bills-Discounted	420.3	408.4	356.1	401.7	415.0	403.7	350.6	395.7

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

(₹ Billion)

Item	Outstanding as on				Growth (%)	
	Mar. 30, 2018	2017	2018		Financial year so far	Y-o-Y
		Sep. 29	Aug. 31	Sep. 28	2018-19	2018
	1	2	3	4	5	6
1 Gross Bank Credit	77,303	72,133	78,191	80,250	3.8	11.3
1.1 Food Credit	419	462	488	475	13.5	2.8
1.2 Non-food Credit	76,884	71,671	77,704	79,774	3.8	11.3
1.2.1 Agriculture & Allied Activities	10,302	9,971	10,419	10,544	2.4	5.8
1.2.2 Industry	26,993	26,404	26,621	27,016	0.1	2.3
1.2.2.1 Micro & Small	3,730	3,690	3,664	3,638	-2.5	-1.4
1.2.2.2 Medium	1,037	1,019	1,053	1,053	1.5	3.3
1.2.2.3 Large	22,226	21,696	21,904	22,326	0.5	2.9
1.2.3 Services	20,505	17,749	20,740	22,014	7.4	24.0
1.2.3.1 Transport Operators	1,213	1,126	1,256	1,267	4.5	12.5
1.2.3.2 Computer Software	186	181	183	192	3.2	6.0
1.2.3.3 Tourism, Hotels & Restaurants	365	370	370	374	2.4	1.0
1.2.3.4 Shipping	63	75	68	66	4.9	-12.1
1.2.3.5 Professional Services	1,554	1,305	1,586	1,618	4.1	24.0
1.2.3.6 Trade	4,669	4,346	4,751	4,815	3.1	10.8
1.2.3.6.1 Wholesale Trade	2,052	1,875	2,105	2,096	2.2	11.8
1.2.3.6.2 Retail Trade	2,618	2,471	2,646	2,719	3.9	10.0
1.2.3.7 Commercial Real Estate	1,858	1,863	1,872	1,847	-0.6	-0.8
1.2.3.8 Non-Banking Financial Companies (NBFCs)	4,964	3,862	4,902	5,467	10.1	41.5
1.2.3.9 Other Services	5,633	4,619	5,752	6,368	13.1	37.9
1.2.4 Personal Loans	19,085	17,547	19,924	20,200	5.8	15.1
1.2.4.1 Consumer Durables	197	178	32	32	-83.6	-81.9
1.2.4.2 Housing	9,746	9,086	10,419	10,502	7.8	15.6
1.2.4.3 Advances against Fixed Deposits	725	653	668	736	1.6	12.8
1.2.4.4 Advances to Individuals against share & bond	56	57	58	63	13.5	10.6
1.2.4.5 Credit Card Outstanding	686	599	785	789	15.0	31.7
1.2.4.6 Education	697	720	698	691	-0.9	-4.0
1.2.4.7 Vehicle Loans	1,898	1,786	1,955	1,954	3.0	9.4
1.2.4.8 Other Personal Loans	5,080	4,468	5,309	5,431	6.9	21.6
1.2A Priority Sector	25,532	24,266	25,633	25,869	1.3	6.6
1.2A.1 Agriculture & Allied Activities	10,216	9,950	10,359	10,474	2.5	5.3
1.2A.2 Micro & Small Enterprises	9,964	9,079	9,881	9,945	-0.2	9.5
1.2A.2.1 Manufacturing	3,730	3,690	3,664	3,638	-2.5	-1.4
1.2A.2.2 Services	6,234	5,389	6,217	6,307	1.2	17.0
1.2A.3 Housing	3,756	3,688	3,936	3,949	5.1	7.1
1.2A.4 Micro-Credit	264	164	212	219	-16.8	33.3
1.2A.5 Education Loans	607	600	578	571	-5.9	-4.7
1.2A.6 State-Sponsored Orgs. for SC/ST	3	3	3	3	16.6	25.9
1.2A.7 Weaker Sections	5,690	5,422	5,871	5,910	3.8	9.0
1.2A.8 Export Credit	283	458	205	223	-21.3	-51.3

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

(₹ Billion)

Industry	Outstanding as on				Growth (%)	
	Mar. 30, 2018	2017	2018		Financial year so far	Y-o-Y
		Sep. 29	Aug. 31	Sep. 28	2018-19	2018
	1	2	3	4	5	6
1 Industry	26,993	26,404	26,621	27,016	0.1	2.3
1.1 Mining & Quarrying (incl. Coal)	413	329	414	427	3.3	29.8
1.2 Food Processing	1,554	1,385	1,427	1,415	-8.9	2.2
1.2.1 Sugar	290	280	261	251	-13.3	-10.5
1.2.2 Edible Oils & Vanaspati	211	179	206	208	-1.3	16.6
1.2.3 Tea	45	42	53	52	16.7	23.7
1.2.4 Others	1,008	883	907	904	-10.4	2.3
1.3 Beverage & Tobacco	156	163	129	137	-12.3	-16.4
1.4 Textiles	2,099	1,954	1,981	1,980	-5.7	1.3
1.4.1 Cotton Textiles	1,057	971	982	972	-8.0	0.1
1.4.2 Jute Textiles	22	27	19	20	-8.0	-24.7
1.4.3 Man-Made Textiles	243	225	238	240	-1.1	6.7
1.4.4 Other Textiles	776	730	742	747	-3.7	2.3
1.5 Leather & Leather Products	113	111	113	114	0.4	2.6
1.6 Wood & Wood Products	109	106	112	113	3.8	6.4
1.7 Paper & Paper Products	306	312	298	295	-3.8	-5.4
1.8 Petroleum, Coal Products & Nuclear Fuels	651	472	538	559	-14.2	18.5
1.9 Chemicals & Chemical Products	1,630	1,575	1,673	1,760	8.0	11.7
1.9.1 Fertiliser	306	246	292	330	8.0	34.1
1.9.2 Drugs & Pharmaceuticals	484	477	511	517	6.9	8.4
1.9.3 Petro Chemicals	387	432	368	394	1.8	-8.8
1.9.4 Others	453	419	502	518	14.3	23.6
1.10 Rubber, Plastic & their Products	424	406	430	442	4.3	8.8
1.11 Glass & Glassware	85	78	100	102	20.7	30.3
1.12 Cement & Cement Products	526	578	514	517	-1.6	-10.4
1.13 Basic Metal & Metal Product	4,160	4,169	3,840	3,842	-7.7	-7.9
1.13.1 Iron & Steel	3,262	3,225	2,947	2,930	-10.2	-9.2
1.13.2 Other Metal & Metal Product	898	944	894	912	1.5	-3.4
1.14 All Engineering	1,553	1,508	1,547	1,565	0.8	3.8
1.14.1 Electronics	344	349	351	359	4.4	2.8
1.14.2 Others	1,210	1,159	1,196	1,206	-0.3	4.1
1.15 Vehicles, Vehicle Parts & Transport Equipment	787	712	754	776	-1.4	9.1
1.16 Gems & Jewellery	727	724	692	697	-4.0	-3.7
1.17 Construction	901	834	878	906	0.6	8.7
1.18 Infrastructure	8,909	8,949	9,237	9,367	5.1	4.7
1.18.1 Power	5,196	5,262	5,299	5,318	2.3	1.1
1.18.2 Telecommunications	846	871	907	919	8.7	5.5
1.18.3 Roads	1,665	1,717	1,712	1,745	4.8	1.6
1.18.4 Other Infrastructure	1,202	1,099	1,319	1,385	15.2	26.0
1.19 Other Industries	1,890	2,040	1,943	2,003	6.0	-1.8

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	2017		2018					
		Aug, 25	Jun, 29	Jul, 06	Jul, 20	Jul, 27	Aug, 03	Aug, 17	Aug, 31
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	31	31	30	31	31	30	30	30	30
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	540.9	518.4	533.6	554.4	571.0	539.3	537.9	541.5	529.2
2 Demand and Time Liabilities									
2.1 Demand Liabilities	158.0	165.1	167.4	165.5	186.4	167.3	180.5	173.1	162.8
2.1.1 Deposits									
2.1.1.1 Inter-Bank	41.7	41.9	49.0	47.8	50.6	47.5	57.7	51.2	50.8
2.1.1.2 Others	89.9	97.4	83.2	85.7	102.9	86.7	89.4	87.7	75.9
2.1.2 Borrowings from Banks	1.2	0.0	8.7	3.7	3.2	3.7	3.0	4.2	5.9
2.1.3 Other Demand Liabilities	25.2	25.8	26.5	28.3	29.7	29.4	30.4	30.0	30.3
2.2 Time Liabilities	797.9	849.7	872.3	895.4	892.3	870.0	870.8	857.3	855.6
2.2.1 Deposits									
2.2.1.1 Inter-Bank	336.5	419.0	415.0	414.1	410.2	410.5	407.7	387.6	388.4
2.2.1.2 Others	451.0	421.0	450.4	468.7	468.1	452.6	448.4	453.8	453.3
2.2.2 Borrowings from Banks	3.1	2.8	0.0	6.6	7.3	0.0	7.5	8.8	7.0
2.2.3 Other Time Liabilities	7.3	6.9	6.8	6.0	6.7	6.9	7.1	7.1	6.9
3 Borrowing from Reserve Bank	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
4 Borrowings from a notified bank / Government	404.8	447.9	429.8	428.6	424.3	432.0	415.0	409.0	423.0
4.1 Demand	112.3	168.4	152.6	148.1	147.6	157.2	148.5	140.5	140.8
4.2 Time	292.5	279.6	277.3	280.6	276.8	274.9	266.5	268.5	282.2
5 Cash in Hand and Balances with Reserve Bank	55.6	47.1	47.5	45.8	58.1	45.4	48.0	49.6	46.4
5.1 Cash in Hand	2.8	3.0	3.1	3.1	3.1	2.9	2.8	2.8	3.1
5.2 Balance with Reserve Bank	52.8	44.1	44.4	42.7	55.0	42.5	45.2	46.8	43.3
6 Balances with Other Banks in Current Account	15.0	6.5	10.4	7.7	7.7	8.4	7.5	9.5	8.8
7 Investments in Government Securities	295.6	312.1	311.4	316.1	315.4	530.8	309.9	308.8	311.7
8 Money at Call and Short Notice	208.8	216.5	186.8	184.6	191.2	173.2	185.3	184.4	169.1
9 Bank Credit (10.1+11)	434.4	478.5	546.5	543.8	533.8	538.9	542.8	535.0	540.3
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	434.4	478.5	546.5	543.8	533.8	538.9	542.8	535.0	540.3
10.2 Due from Banks	668.5	724.0	693.3	692.1	690.1	692.8	689.6	702.3	719.0
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	2017-18			Rural			Urban			Combined		
	Rural	Urban	Combined	Sep. 17	Aug. 18	Sep. 18	Sep. 17	Aug. 18	Sep. 18	Sep. 17	Aug. 18	Sep. 18
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	138.6	137.4	138.1	139.6	142.7	141.5	138.0	140.1	138.9	139.0	141.7	140.5
1.1 Cereals and products	135.2	133.7	134.7	135.2	139.2	139.8	133.6	136.5	137.0	134.7	138.3	138.9
1.2 Meat and fish	142.7	143.8	143.1	142.0	148.8	147.1	143.0	146.4	143.1	142.4	148.0	145.7
1.3 Egg	134.4	134.1	134.3	130.5	139.1	136.5	129.7	136.6	132.8	130.2	138.1	135.1
1.4 Milk and products	140.3	138.6	139.6	140.2	143.5	144.2	138.7	141.2	141.5	139.6	142.6	143.2
1.5 Oils and fats	121.7	114.8	119.2	120.7	125.0	124.8	114.5	117.4	117.7	118.4	122.2	122.2
1.6 Fruits	146.2	137.0	141.9	147.8	154.4	148.6	137.5	146.3	140.0	143.0	150.6	144.6
1.7 Vegetables	146.8	154.3	149.3	154.5	156.3	149.5	160.7	157.3	151.3	156.6	156.6	150.1
1.8 Pulses and products	136.4	123.6	132.1	137.1	126.8	125.5	124.5	113.6	113.5	132.9	122.4	121.5
1.9 Sugar and confectionery	119.8	120.2	119.9	121.0	115.4	114.4	122.4	113.3	112.3	121.5	114.7	113.7
1.10 Spices	135.0	139.2	136.4	134.7	138.6	138.7	137.3	141.1	141.2	135.6	139.4	139.5
1.11 Non-alcoholic beverages	131.1	125.0	128.5	131.7	133.8	134.3	124.8	127.4	127.7	128.8	131.1	131.5
1.12 Prepared meals, snacks, sweets	149.4	145.1	147.4	149.3	155.2	156.0	145.0	150.4	151.3	147.3	153.0	153.8
2 Pan, tobacco and intoxicants	150.0	153.8	151.0	149.8	156.4	157.7	153.6	162.1	163.3	150.8	157.9	159.2
3 Clothing and footwear	145.3	132.4	140.2	145.2	151.3	151.3	132.0	138.3	139.1	140.0	146.1	146.5
3.1 Clothing	146.1	133.8	141.3	146.1	152.1	152.2	133.3	140.0	140.8	141.1	147.3	147.7
3.2 Footwear	140.0	124.7	133.7	139.7	145.8	146.0	124.6	129.0	129.3	133.4	138.8	139.1
4 Housing	--	136.4	136.4	--	--	--	135.7	144.6	145.3	135.7	144.6	145.3
5 Fuel and light	138.6	123.0	132.7	137.4	147.7	148.8	120.6	129.8	131.2	131.0	140.9	142.1
6 Miscellaneous	130.4	124.4	127.5	130.3	136.6	137.4	124.5	131.0	131.9	127.5	133.9	134.7
6.1 Household goods and services	137.7	128.2	133.2	137.9	143.8	144.1	128.1	134.4	134.9	133.3	139.4	139.8
6.2 Health	133.9	126.6	131.1	133.4	139.4	139.9	126.1	134.9	135.6	130.6	137.7	138.3
6.3 Transport and communication	121.2	115.3	118.0	121.2	128.3	129.7	115.7	120.7	122.5	118.3	124.3	125.9
6.4 Recreation and amusement	132.1	124.6	127.9	132.3	138.6	139.7	124.5	129.8	130.2	127.9	133.6	134.3
6.5 Education	139.7	135.9	137.4	139.6	146.9	147.6	135.9	145.3	145.2	137.4	146.0	146.2
6.6 Personal care and effects	126.5	124.1	125.5	126.7	131.3	132.0	124.4	128.3	129.3	125.7	130.1	130.9
General Index (All Groups)	137.2	132.5	135.0	137.6	142.5	142.2	132.4	138.0	138.1	135.2	140.4	140.3

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

No. 19: Other Consumer Price Indices

Item	Base Year	Linking Factor	2017-18	2017		2018	
				Sep.	Aug.	Aug.	Sep.
	1	2	3	4	5	6	
1 Consumer Price Index for Industrial Workers	2001	4.63	284	285	301	301	
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	889	893	907	910	
3 Consumer Price Index for Rural Labourers	1986-87	—	895	899	915	917	

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

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

Item	2017-18	2017		2018	
		Sep.	Aug.	Aug.	Sep.
	1	2	3	4	
1 Standard Gold (₹ per 10 grams)	29,300	29,899	29,644	30,538	
2 Silver (₹ per kilogram)	39,072	40,120	37,374	36,864	

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	2017-18	2017		2018	
			2017-18	2017	2018	2018
1	2	3	4	5	6	
I ALL COMMODITIES	100.000	114.9	114.9	119.9	120.0	120.8
I.1 PRIMARY ARTICLES	22.618	130.6	131.5	135.3	135.1	135.4
I.1.1 FOOD ARTICLES	15.256	143.2	144.8	144.8	144.8	144.5
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	142.6	144.0	142.6	145.0	145.4
1.1.1.2 Fruits & Vegetables	3.475	155.9	162.8	156.1	155.6	154.0
1.1.1.3 Milk	4.440	139.7	140.4	143.2	143.7	143.5
1.1.1.4 Eggs,Meat & Fish	2.402	135.7	134.9	139.3	135.7	134.2
1.1.1.5 Condiments & Spices	0.529	125.2	124.0	130.5	131.1	133.7
1.1.1.6 Other Food Articles	0.948	144.0	139.4	140.9	141.3	143.7
I.1.2 NON-FOOD ARTICLES	4.119	119.6	119.8	123.5	125.0	124.8
1.1.2.1 Fibres	0.839	119.0	117.5	129.9	130.8	130.2
1.1.2.2 Oil Seeds	1.115	129.9	128.0	138.1	140.1	138.5
1.1.2.3 Other non-food Articles	1.960	110.9	113.9	109.6	110.7	108.7
1.1.2.4 Floriculture	0.204	148.7	140.4	151.4	155.3	182.8
I.1.3 MINERALS	0.833	122.5	129.3	135.2	123.2	135.2
1.1.3.1 Metallic Minerals	0.648	109.1	118.3	120.7	105.6	120.7
1.1.3.2 Other Minerals	0.185	169.3	168.0	186.0	184.6	186.0
I.1.4 CRUDE PETROLEUM & NATURAL GAS	2.410	73.0	67.8	94.9	94.9	95.9
I.2 FUEL & POWER	13.152	93.3	91.9	104.4	104.9	107.2
I.2.1 COAL	2.138	118.7	117.5	123.0	123.0	123.2
1.2.1.1 Coking Coal	0.647	134.1	135.5	132.0	132.0	132.8
1.2.1.2 Non-Coking Coal	1.401	112.5	110.7	119.0	119.0	119.0
1.2.1.3 Lignite	0.090	104.2	95.0	120.0	120.0	120.0
I.2.2 MINERAL OILS	7.950	82.5	79.6	97.5	98.3	101.9
I.2.3 ELECTRICITY	3.064	103.7	106.1	109.6	109.6	109.6
I.3 MANUFACTURED PRODUCTS	64.231	113.8	113.7	117.7	117.8	118.5
I.3.1 MANUFACTURE OF FOOD PRODUCTS	9.122	127.4	128.4	129.0	129.0	129.4
1.3.1.1 Processing and Preserving of meat	0.134	134.4	133.0	137.6	137.3	137.3
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	128.1	129.2	123.6	124.7	137.4
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	119.1	118.1	114.0	116.5	113.8
1.3.1.4 Vegetable and Animal oils and Fats	2.643	109.4	107.8	120.2	119.0	119.0
1.3.1.5 Dairy products	1.165	142.1	145.2	137.5	136.6	136.5
1.3.1.6 Grain mill products	2.010	137.4	139.0	138.6	140.2	142.7
1.3.1.7 Starches and Starch products	0.110	112.6	112.5	110.4	110.4	111.1
1.3.1.8 Bakery products	0.215	128.8	127.8	129.0	129.9	130.2
1.3.1.9 Sugar, Molasses & honey	1.163	128.0	133.1	114.3	114.3	112.0
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	126.1	126.6	124.9	124.4	124.8
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	131.4	132.3	133.3	133.9	135.8
1.3.1.12 Tea & Coffee products	0.371	129.1	130.7	143.3	141.9	138.8
1.3.1.13 Processed condiments & salt	0.163	118.2	117.5	120.7	121.8	121.9
1.3.1.14 Processed ready to eat food	0.024	127.2	126.5	125.4	125.7	126.0
1.3.1.15 Health supplements	0.225	141.1	144.3	140.2	140.2	140.2
1.3.1.16 Prepared animal feeds	0.356	153.0	152.5	154.8	156.6	158.1
I.3.2 MANUFACTURE OF BEVERAGES	0.909	118.9	118.8	119.7	120.0	120.4
1.3.2.1 Wines & spirits	0.408	113.8	113.7	112.7	112.9	114.0
1.3.2.2 Malt liquors and Malt	0.225	117.9	118.5	120.1	120.3	120.4
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	127.4	126.6	129.7	130.2	129.9
I.3.3 MANUFACTURE OF TOBACCO PRODUCTS	0.514	148.4	150.2	149.4	150.1	149.6
1.3.3.1 Tobacco products	0.514	148.4	150.2	149.4	150.1	149.6
I.3.4 MANUFACTURE OF TEXTILES	4.881	113.4	113.2	117.7	117.6	118.9
1.3.4.1 Preparation and Spinning of textile fibres	2.582	106.2	105.5	110.3	110.5	112.7
1.3.4.2 Weaving & Finishing of textiles	1.509	122.0	122.5	127.0	126.8	126.3
1.3.4.3 Knitted and Crocheted fabrics	0.193	108.6	106.6	114.4	115.0	113.9
1.3.4.4 Made-up textile articles, Except apparel	0.299	124.6	124.5	129.9	129.6	131.7
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	141.7	142.9	138.5	138.1	139.7
1.3.4.6 Other textiles	0.201	117.5	117.5	116.5	115.9	117.9
I.3.5 MANUFACTURE OF WEARING APPAREL	0.814	136.9	136.8	138.6	139.1	138.6
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	137.8	137.8	139.6	139.9	139.5
1.3.5.2 Knitted and Crocheted apparel	0.221	134.5	134.0	135.9	137.0	136.2

No. 21: Wholesale Price Index (Contd.)
(Base: 2011-12 = 100)

Commodities	Weight	2017-18	2017	2018		
			Sep.	Jul.	Aug. (P)	Sep. (P)
				1	2	3
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	0.535	120.1	119.9	123.7	122.5	123.0
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	110.9	109.8	116.9	114.1	113.0
1.3.6.2 Luggage, HandBags, Saddlery and Harness	0.075	131.2	130.9	135.7	134.4	134.5
1.3.6.3 Footwear	0.318	121.6	121.8	123.8	123.4	124.7
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	0.772	131.5	132.7	132.4	132.8	133.7
1.3.7.1 Saw milling and Planing of wood	0.124	120.5	119.1	122.8	122.2	122.9
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	131.5	132.3	135.2	135.4	137.2
1.3.7.3 Builder's carpentry and Joinery	0.036	159.8	159.0	156.5	156.5	156.4
1.3.7.4 Wooden containers	0.119	134.5	140.8	123.4	125.9	123.7
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	1.113	118.9	119.9	122.3	122.6	123.1
1.3.8.1 Pulp, Paper and Paperboard	0.493	122.3	122.5	127.2	127.5	128.6
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	116.1	118.4	117.4	117.7	116.1
1.3.8.3 Other articles of paper and Paperboard	0.306	116.2	117.1	119.6	119.7	121.4
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	0.676	143.7	145.1	147.5	147.9	148.4
1.3.9.1 Printing	0.676	143.7	145.1	147.5	147.9	148.4
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	6.465	112.5	111.3	118.3	118.6	119.3
1.3.10.1 Basic chemicals	1.433	111.2	108.2	123.8	124.5	126.0
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	117.1	116.5	119.3	120.0	120.3
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	113.0	112.7	118.3	118.4	119.5
1.3.10.4 Pesticides and Other agrochemical products	0.454	115.3	113.7	119.1	120.2	119.5
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	108.6	107.5	111.3	110.3	111.1
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	115.2	114.4	116.3	115.6	115.8
1.3.10.7 Other chemical products	0.692	110.1	109.0	116.8	117.4	117.9
1.3.10.8 Man-made fibres	0.296	97.5	96.4	103.9	104.3	106.0
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	1.993	121.2	121.4	123.1	123.5	123.2
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	121.2	121.4	123.1	123.5	123.2
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	2.299	107.6	107.6	109.5	109.2	109.6
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	100.3	100.8	98.8	98.8	99.0
1.3.12.2 Other Rubber Products	0.272	91.0	91.3	91.0	91.5	91.7
1.3.12.3 Plastics products	1.418	113.9	113.7	117.6	117.1	117.5
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	3.202	112.7	111.9	115.9	115.9	115.9
1.3.13.1 Glass and Glass products	0.295	117.2	116.9	119.1	121.1	119.9
1.3.13.2 Refractory products	0.223	113.2	113.3	110.8	111.6	110.2
1.3.13.3 Clay Building Materials	0.121	94.0	89.2	96.6	91.8	98.1
1.3.13.4 Other Porcelain and Ceramic Products	0.222	112.5	112.8	112.5	112.5	112.2
1.3.13.5 Cement, Lime and Plaster	1.645	113.8	113.8	114.3	114.2	113.6
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	118.9	119.4	121.9	121.8	122.9
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	117.2	116.8	118.3	118.4	119.5
1.3.13.8 Other Non-Metallic Mineral Products	0.169	89.9	77.4	136.8	137.3	139.4
1.3.14 MANUFACTURE OF BASIC METALS	9.646	101.4	100.9	112.1	111.6	113.8
1.3.14.1 Inputs into steel making	1.411	98.2	97.6	113.4	113.2	119.3
1.3.14.2 Metallic Iron	0.653	99.4	100.2	117.5	117.3	121.2
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	93.2	93.1	99.6	99.5	101.1
1.3.14.4 Mild Steel -Long Products	1.081	95.6	92.5	110.0	108.1	111.9
1.3.14.5 Mild Steel - Flat products	1.144	104.9	104.7	120.7	119.7	122.0
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	97.3	93.5	110.5	109.5	114.0
1.3.14.7 Stainless Steel - Semi Finished	0.924	98.2	96.7	113.6	112.9	111.8
1.3.14.8 Pipes & tubes	0.205	116.1	116.6	124.8	125.8	127.4
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	107.9	108.1	113.8	112.4	112.2
1.3.14.10 Castings	0.925	104.8	105.9	108.3	109.2	111.2
1.3.14.11 Forgings of steel	0.271	118.4	117.7	112.5	115.5	116.1
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	3.155	109.5	108.9	114.9	115.5	115.2
1.3.15.1 Structural Metal Products	1.031	105.9	105.7	111.6	113.5	114.3
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	122.6	119.7	129.2	129.1	128.7
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	109.0	109.4	108.5	106.8	103.7
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	90.7	92.1	95.1	96.8	94.1
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	102.3	94.3	99.2	99.7	99.7
1.3.15.6 Other Fabricated Metal Products	0.728	114.8	116.6	122.8	122.3	122.2
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	2.009	110.1	111.7	110.8	112.2	113.0
1.3.16.1 Electronic Components	0.402	103.7	103.6	101.8	100.5	101.4
1.3.16.2 Computers and Peripheral Equipment	0.336	127.4	127.4	127.3	135.1	135.1

No. 21: Wholesale Price Index (Concl.)
(Base: 2011-12 = 100)

Commodities	Weight	2017-18	2017	2018		
			Sep.	Jul.	Aug. (P)	Sep. (P)
				1	2	3
1.3.16.3 Communication Equipment	0.310	110.6	116.0	116.4	116.2	117.4
1.3.16.4 Consumer Electronics	0.641	103.1	105.0	103.0	105.3	105.4
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	106.9	108.7	109.2	105.1	109.9
1.3.16.6 Watches and Clocks	0.076	137.8	136.7	138.9	138.9	139.9
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	102.9	105.3	103.0	103.0	101.5
1.3.16.8 Optical instruments and Photographic equipment	0.008	108.0	112.8	112.1	112.1	107.5
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	2.930	109.6	110.7	111.5	111.7	111.8
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	105.8	106.8	106.9	107.5	107.1
1.3.17.2 Batteries and Accumulators	0.236	117.4	115.3	118.4	118.3	118.2
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	116.5	123.8	123.5	125.7	129.6
1.3.17.4 Other electronic and Electric wires and Cables	0.428	105.7	106.7	111.6	110.5	111.4
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	109.9	110.7	108.8	108.7	108.8
1.3.17.6 Domestic appliances	0.366	121.3	122.1	122.7	122.9	121.9
1.3.17.7 Other electrical equipment	0.206	107.2	109.4	107.3	107.9	109.1
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	4.789	108.9	108.5	110.9	111.1	111.3
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	102.3	100.4	103.2	103.5	103.3
1.3.18.2 Fluid power equipment	0.162	115.3	115.1	117.9	117.7	118.7
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	108.6	107.9	109.0	108.9	109.1
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	109.0	108.6	112.1	112.4	111.1
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	78.5	79.4	79.1	79.1	77.5
1.3.18.6 Lifting and Handling equipment	0.285	105.8	107.6	109.2	109.5	108.4
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	127.3	128.4	130.2	130.2	130.2
1.3.18.9 Agricultural and Forestry machinery	0.833	112.8	112.5	115.5	116.4	117.0
1.3.18.10 Metal-forming machinery and Machine tools	0.224	99.6	99.7	99.4	100.6	103.8
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	75.0	75.6	75.2	74.0	75.9
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	121.1	117.3	121.6	121.5	121.6
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	117.4	116.1	122.4	122.2	120.6
1.3.18.14 Other special-purpose machinery	0.468	119.5	119.4	123.7	123.7	124.1
1.3.18.15 Renewable electricity generating equipment	0.046	70.4	71.0	67.0	67.0	67.0
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	4.969	110.7	110.5	112.4	113.3	113.6
1.3.19.1 Motor vehicles	2.600	112.6	112.6	112.9	113.9	114.6
1.3.19.2 Parts and Accessories for motor vehicles	2.368	108.6	108.1	111.9	112.5	112.5
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	1.648	110.2	109.6	111.2	111.2	111.4
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	104.0	104.7	105.3	103.9	103.9
1.3.20.3 Motor cycles	1.302	105.3	104.6	106.1	106.1	106.3
1.3.20.4 Bicycles and Invalid carriages	0.117	121.3	120.1	126.3	126.6	127.9
1.3.20.5 Other transport equipment	0.002	119.9	119.1	121.9	123.8	124.1
1.3.21 MANUFACTURE OF FURNITURE	0.727	120.3	125.0	125.3	125.5	125.4
1.3.21.1 Furniture	0.727	120.3	125.0	125.3	125.5	125.4
1.3.22 OTHER MANUFACTURING	1.064	109.2	106.6	106.9	106.6	107.0
1.3.22.1 Jewellery and Related articles	0.996	106.7	103.8	104.1	103.7	103.8
1.3.22.2 Musical instruments	0.001	171.0	169.2	169.9	174.3	167.1
1.3.22.3 Sports goods	0.012	126.0	125.7	126.3	126.6	127.7
1.3.22.4 Games and Toys	0.005	128.2	126.7	129.4	131.0	133.8
1.3.22.5 Medical and Dental instruments and Supplies	0.049	151.9	155.3	154.9	155.1	160.6
2 FOOD INDEX	24.378	137.3	138.7	138.9	138.9	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-August		August	
				2017-18	2018-19	2017	2018
	1	2	3	4	5	6	7
General Index	100.00	120.0	125.3	120.3	126.6	122.1	127.4
1 Sectoral Classification							
1.1 Mining	14.37	102.5	104.9	96.8	100.6	92.6	92.2
1.2 Manufacturing	77.63	121.0	126.6	121.3	127.8	124.1	129.8
1.3 Electricity	7.99	141.6	149.2	152.7	161.5	155.4	167.2
2 Use-Based Classification							
2.1 Primary Goods	34.05	117.5	121.8	117.7	124.1	117.8	120.9
2.2 Capital Goods	8.22	101.5	105.6	97.3	103.9	101.7	106.8
2.3 Intermediate Goods	17.22	122.3	125.1	121.1	122.4	123.0	125.9
2.4 Infrastructure/ Construction Goods	12.34	125.0	132.0	127.8	138.4	128.3	138.3
2.5 Consumer Durables	12.84	122.6	123.6	121.5	131.9	128.1	134.8
2.6 Consumer Non-Durables	15.33	126.5	139.9	130.5	135.0	131.4	139.7

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 - September			
	2018-19 (Budget Estimates)	2018-19 (Actuals)	2017-18 (Actuals)	Percentage to Budget Estimates	
				2018-19	2017-18
1	2	3	4	5	
1 Revenue Receipts	17,257.4	6,917.5	6,232.1	40.1	41.1
1.1 Tax Revenue (Net)	14,806.5	5,827.8	5,423.6	39.4	44.2
1.2 Non-Tax Revenue	2,450.9	1,089.7	808.5	44.5	28.0
2 Capital Receipts	7,164.8	6,124.6	5,259.8	85.5	83.4
2.1 Recovery of Loans	122.0	77.9	72.8	63.8	61.0
2.2 Other Receipts	800.0	99.5	197.6	12.4	27.3
2.3 Borrowings and Other Liabilities	6,242.8	5,947.3	4,989.4	95.3	91.3
3 Total Receipts (1+2)	24,422.1	13,042.2	11,491.9	53.4	53.5
4 Revenue Expenditure	21,417.7	11,415.9	10,028.0	53.3	54.6
4.1 Interest Payments	5,758.0	2,554.3	2,257.7	44.4	43.2
5 Capital Expenditure	3,004.4	1,626.3	1,463.9	54.1	47.3
6 Total Expenditure (4+5)	24,422.1	13,042.2	11,491.9	53.4	53.5
7 Revenue Deficit (4-1)	4,160.3	4,498.3	3,795.9	108.1	118.2
8 Fiscal Deficit {6-(1+2.1+2.2)}	6,242.8	5,947.3	4,989.4	95.3	91.3
9 Gross Primary Deficit (8-4.1)	484.8	3,393.0	2,731.7	699.9	1164.7

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	2016-17	2017	2018					
		Sep. 29	Aug. 24	Aug. 31	Sep. 7	Sep. 14	Sep. 21	Sep. 28
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	323.7	443.5	469.8	401.8	484.8	443.3	484.4	468.7
1.2 Primary Dealers	243.5	260.7	220.7	209.5	194.5	218.7	254.5	300.9
1.3 State Governments	146.2	892.9	646.1	665.3	595.3	655.3	655.3	695.4
1.4 Others	343.4	706.0	591.0	699.5	661.4	708.4	658.1	657.1
2 182-day								
2.1 Banks	216.2	382.4	390.5	393.6	430.0	410.9	436.6	445.2
2.2 Primary Dealers	316.5	295.9	353.5	338.6	350.9	351.1	338.1	313.0
2.3 State Governments	193.6	145.6	333.0	333.8	343.8	343.8	342.9	342.9
2.4 Others	120.9	150.4	249.0	260.1	221.3	240.2	237.5	263.6
3 364-day								
3.1 Banks	512.3	439.6	405.1	375.5	429.7	415.4	454.3	455.6
3.2 Primary Dealers	551.8	590.3	830.9	742.5	792.5	799.6	786.9	666.4
3.3 State Governments	26.3	29.7	157.9	157.9	170.4	170.4	170.4	170.4
3.4 Others	326.4	364.9	455.7	553.7	489.0	478.7	492.2	588.4
4 14-day Intermediate								
4.1 Banks	–	–	–	–	–	–	–	–
4.2 Primary Dealers	–	–	–	–	–	–	–	–
4.3 State Governments	1,560.6	1,251.7	1,424.2	1,361.5	1,137.0	946.5	1,568.9	1,500.4
4.4 Others	5.1	11.0	3.4	4.4	4.0	6.2	11.8	1.8
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	3,320.8	4,702.1	5,103.4	5,131.9	5,163.7	5,235.9	5,311.3	5,367.6

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

(₹ Billion)

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												
Aug. 29	100	56	698.94	120.01	28	100.00	120.01	220.00	98.33	6.8121		
Sep. 6	100	56	683.17	32.00	18	100.00	32.00	132.00	98.32	6.8536		
Sep. 12	100	54	360.55	92.00	27	100.00	92.00	192.00	98.29	6.9781		
Sep. 19	100	50	255.22	0.41	29	100.00	0.41	100.41	98.27	7.0612		
Sep. 26	100	53	256.58	77.00	26	100.00	77.00	177.00	98.24	7.1858		
182-day Treasury Bills												
2018-19												
Aug. 29	40	35	144.15	40.00	4	40.00	40.00	80.00	96.62	7.0157		
Sep. 6	40	39	94.19	10.00	16	40.00	10.00	50.00	96.57	7.1232		
Sep. 12	40	46	106.76	0.00	9	40.00	0.00	40.00	96.50	7.2738		
Sep. 19	40	40	83.90	5.32	19	40.00	5.32	45.32	96.47	7.3384		
Sep. 26	40	47	115.21	0.00	20	40.00	0.00	40.00	96.43	7.4247		
364-day Treasury Bills												
2018-19												
Aug. 29	40	52	124.70	0.00	20	40.00	0.00	40.00	93.19	7.3277		
Sep. 6	40	43	62.45	12.50	34	40.00	12.50	52.50	93.02	7.5244		
Sep. 12	40	77	122.68	0.00	32	40.00	0.00	40.00	92.89	7.6752		
Sep. 19	40	67	128.48	0.00	19	40.00	0.00	40.00	92.90	7.6636		
Sep. 26	40	88	153.81	0.00	41	40.00	0.00	40.00	92.84	7.7334		

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
September	1, 2018	5.00-6.45	6.22
September	3, 2018	5.10-6.70	6.33
September	4, 2018	5.00-6.45	6.32
September	5, 2018	5.00-6.45	6.30
September	6, 2018	5.10-6.50	6.31
September	7, 2018	5.00-6.50	6.35
September	10, 2018	5.00-6.75	6.54
September	11, 2018	5.00-6.85	6.49
September	12, 2018	5.00-6.65	6.45
September	14, 2018	5.00-6.50	6.42
September	15, 2018	5.00-6.75	6.57
September	17, 2018	5.00-6.75	6.58
September	18, 2018	5.00-6.75	6.54
September	19, 2018	5.00-6.70	6.56
September	21, 2018	5.10-6.85	6.58
September	24, 2018	5.00-6.75	6.58
September	25, 2018	5.00-6.70	6.51
September	26, 2018	5.00-6.65	6.45
September	27, 2018	5.00-6.90	6.47
September	28, 2018	5.00-6.75	6.48
September	29, 2018	4.75-6.60	6.22
October	1, 2018	5.00-6.65	6.37
October	3, 2018	5.00-6.55	6.32
October	4, 2018	5.00-6.45	6.32
October	5, 2018	5.00-6.60	6.38
October	6, 2018	4.50-6.65	5.94
October	8, 2018	5.00-6.55	6.40
October	9, 2018	5.00-6.50	6.39
October	10, 2018	5.00-6.55	6.45
October	11, 2018	5.00-6.55	6.42
October	12, 2018	5.00-6.75	6.42
October	15, 2018	5.00-6.75	6.48

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2017	2018			
	Sep. 29	Aug. 17	Aug. 31	Sep. 14	Sep. 28
	1	2	3	4	5
1 Amount Outstanding (₹ Billion)	1,144.5	1,586.6	1,639.8	1,572.8	1,510.1
1.1 Issued during the fortnight (₹ Billion)	169.2	114.6	241.3	184.1	110.1
2 Rate of Interest (per cent)	6.09-6.68	6.80-8.10	6.95-8.90	6.99-8.45	7.15-8.46

No. 28: Commercial Paper

Item	2017	2018			
	Sep. 30	Aug. 15	Aug. 31	Sep. 15	Sep. 30
	1	2	3	4	5
1 Amount Outstanding (₹ Billion)	3,932.1	5,978.4	6,323.0	6,408.1	5,562.0
1.1 Reported during the fortnight (₹ Billion)	1,162.9	1,478.5	1,561.2	1,112.6	1,125.2
2 Rate of Interest (per cent)	5.89-11.00	6.53-15.79	6.44-10.40	6.56-15.79	6.84-11.18

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Billion)

Item	2017-18	2017	2018					
		Sep. 29	Aug. 24	Aug. 31	Sep. 7	Sep. 14	Sep. 21	Sep. 28
	1	2	3	4	5	6	7	8
1 Call Money	245.5	322.7	254.4	244.3	271.9	274.6	313.6	390.5
2 Notice Money	36.6	8.4	2.7	123.5	3.6	170.8	12.2	72.7
3 Term Money	9	7.6	8.5	10.5	4.9	7.2	3.4	6.6
4 CBLO	2,130.1	2,433.7	2,289.9	2,521.7	2,289.9	2,510.1	2,483.6	3,064.5
5 Market Repo	1,921.8	2,424.3	1,697.6	2,407.1	1,674.3	2,652.8	2,063.1	3,104.6
6 Repo in Corporate Bond	3.8	1.8	6.1	3.6	11.2	7.7	2.5	7.3
7 Forex (US \$ million)	55,345	86,072	68,761	71,096	63,338	68,000	67,405	89,280
8 Govt. of India Dated Securities	808.7	846.4	463.2	558.1	742.5	788.2	822.0	634.3
9 State Govt. Securities	45.3	97.5	28.8	32.1	41.2	36.2	37.6	27.2
10 Treasury Bills								
10.1 91-Day	35.5	36.0	46.9	54.8	26.5	22.2	39.4	77.6
10.2 182-Day	10.2	13.9	8.3	13.1	16.3	7.6	4.9	10.2
10.3 364-Day	10.3	21.9	2.5	3.7	12.7	8.7	5.0	8.2
10.4 Cash Management Bills	13	—	24.0	10.0	2.7	8.1	11.9	—
11 Total Govt. Securities (8+9+10)	923.0	1,015.7	573.6	671.8	841.9	871.1	920.8	757.4
11.1 RBI	—	20.8	0.2	0.2	—	—	—	—

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

(₹ Billion)

Security & Type of Issue	2017-18		2017-18 (Apr.-Sep.)		2018-19 (Apr.-Sep.) *		Sep. 2017		Sep. 2018 *	
	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	214	679.9	96	172.7	83	135.8	41	87.8	15	20.1
1A Premium	211	657.8	95	166.7	81	131.9	41	85.4	15	19.5
1.1 Public	193	466.0	90	165.6	79	124.5	39	87.5	15	20.1
1.1.1 Premium	190	448.7	89	160.3	77	121.5	39	85.2	15	19.5
1.2 Rights	21	213.9	6	7.1	4	11.3	2	0.2	–	–
1.2.1 Premium	21	209.1	6	6.4	4	10.5	2	0.2	–	–
2 Preference Shares	–	–	–	–	–	–	–	–	–	–
2.1 Public	–	–	–	–	–	–	–	–	–	–
2.2 Rights	–	–	–	–	–	–	–	–	–	–
3 Debentures	7	49.5	4	39.0	11	273.3	–	–	4	62.9
3.1 Convertible	–	–	–	–	–	–	–	–	–	–
3.1.1 Public	–	–	–	–	–	–	–	–	–	–
3.1.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2 Non-Convertible	7	49.5	4	39.0	11	273.3	–	–	4	62.9
3.2.1 Public	7	49.5	4	39.0	11	273.3	–	–	4	62.9
3.2.2 Rights	–	–	–	–	–	–	–	–	–	–
4 Bonds	–	–	–	–	–	–	–	–	–	–
4.1 Public	–	–	–	–	–	–	–	–	–	–
4.2 Rights	–	–	–	–	–	–	–	–	–	–
5 Total (1+2+3+4)	221	729.5	100	211.6	94	409.1	41	87.8	19	83.0
5.1 Public	200	515.6	94	204.5	90	397.8	39	87.5	19	83.0
5.2 Rights	21	213.9	6	7.1	4	11.3	2	0.2	–	–

* : 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	2017-18	2017		2018			
			Sep.	May	Jun.	Jul.	Aug.	Sep.
		1	2	3	4	5	6	7
1 Exports	₹ Billion	19,565.1	1,840.9	1,954.8	1,851.6	1,782.2	1,941.5	2,014.9
	US \$ Million	303,526.2	28,567.1	28,942.6	27,312.3	25,945.0	27,916.5	27,901.9
1.1 Oil	₹ Billion	2,414.3	223.7	336.3	249.7	262.9	268.1	318.1
	US \$ Million	37,465.1	3,471.0	4,979.2	3,683.1	3,826.9	3,855.6	4,404.5
1.2 Non-oil	₹ Billion	17,150.8	1,617.2	1,618.5	1,601.9	1,519.4	1,673.3	1,696.9
	US \$ Million	266,061.1	25,096.1	23,963.4	23,629.2	22,118.0	24,060.9	23,497.4
2 Imports	₹ Billion	30,010.3	2,446.3	2,963.4	3,037.8	3,008.6	3,151.8	3,028.3
	US \$ Million	465,581.0	37,962.7	43,876.1	44,809.3	43,796.8	45,319.5	41,934.5
2.1 Oil	₹ Billion	7,003.2	526.4	778.7	865.6	848.3	830.1	788.1
	US \$ Million	108,658.7	8,169.1	11,529.1	12,767.6	12,348.6	11,936.6	10,913.4
2.2 Non-oil	₹ Billion	23,007.1	1,919.9	2,184.7	2,172.2	2,160.3	2,321.7	2,240.2
	US \$ Million	356,922.3	29,793.6	32,347.0	32,041.7	31,448.3	33,382.8	31,021.2
3 Trade Balance	₹ Billion	-10,445.2	-605.5	-1,008.6	-1,186.2	-1,226.3	-1,210.3	-1,013.4
	US \$ Million	-162,054.8	-9,395.6	-14,933.5	-17,497.0	-17,851.9	-17,403.0	-14,032.6
3.1 Oil	₹ Billion	-4,588.9	-302.8	-442.4	-615.9	-585.4	-562.0	-470.0
	US \$ Million	-71,193.6	-4,698.1	-6,549.9	-9,084.5	-8,521.7	-8,081.0	-6,508.9
3.2 Non-oil	₹ Billion	-5,856.3	-302.7	-566.2	-570.3	-640.9	-648.3	-543.3
	US \$ Million	-90,861.2	-4,697.4	-8,383.6	-8,412.4	-9,330.2	-9,322.0	-7,523.7

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

No. 32: Foreign Exchange Reserves

Item	Unit	2017	2018					
			Oct. 20	Sep. 14	Sep. 21	Sep. 28	Oct. 5	Oct. 12
		1	2	3	4	5	6	7
1 Total Reserves	₹ Billion	26,021	28,724	28,831	29,038	29,363	29,065	28,862
	US \$ Million	399,921	400,490	401,790	400,525	399,609	394,466	393,524
1.1 Foreign Currency Assets	₹ Billion	24,388	26,994	27,098	27,277	27,590	27,285	27,085
	US \$ Million	374,908	376,155	377,413	376,243	375,231	369,999	369,077
1.2 Gold	₹ Billion	1,388	1,446	1,448	1,476	1,484	1,489	1,489
	US \$ Million	21,241	20,378	20,414	20,343	20,451	20,522	20,522
1.3 SDRs	SDRs Million	1,063	1,054	1,054	1,054	1,054	1,054	1,054
	₹ Billion	98	106	106	107	108	109	108
1.4 Reserve Tranche Position in IMF	US \$ Million	1,500	1,478	1,481	1,471	1,466	1,473	1,465
	₹ Billion	148	178	178	179	181	182	181
	US \$ Million	2,273	2,478	2,483	2,468	2,461	2,472	2,459

No. 33: NRI Deposits

(US\$ Million)

Scheme	Outstanding				Flows	
	2017-18	2017	2018		2017-18	2018-19
		Sep.	Aug.	Sep.	Apr.-Sep.	Apr.-Sep.
	1	2	3	4	5	6
1 NRI Deposits	126,182	118,021	123,028	121,914	1,948	6,838
1.1 FCNR(B)	22,026	20,238	22,623	22,422	-764	396
1.2 NR(E)RA	90,035	85,381	86,507	85,719	2,868	5,270
1.3 NRO	14,121	12,401	13,899	13,773	-156	1,171

No. 34: Foreign Investment Inflows

(US\$ Million)

Item	2017-18	2017-18	2018-19	2017	2018	
		Apr.-Aug.	Apr.-Aug.	Aug.	Jul.	Aug.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1–1.1.2)	30,286	19,025	13,414	7,682	1,937	1,781
1.1.1 Direct Investment to India (1.1.1.1–1.1.2)	39,431	22,809	18,470	7,919	3,035	2,432
1.1.1.1 Gross Inflows/Gross Investments	60,974	30,117	24,938	9,348	4,352	3,749
1.1.1.1.1 Equity	45,521	23,501	18,291	8,057	2,823	2,562
1.1.1.1.1.1 Government (SIA/FIPB)	7,797	6,288	1,558	5,897	3	14
1.1.1.1.1.2 RBI	29,569	14,000	14,198	1,604	1,978	2,182
1.1.1.1.1.3 Acquisition of shares	7,491	2,951	2,272	503	788	311
1.1.1.1.1.4 Equity capital of unincorporated bodies	664	262	262	54	54	54
1.1.1.1.2 Reinvested earnings	12,542	4,953	5,249	1,014	1,014	1,014
1.1.1.1.3 Other capital	2,911	1,663	1,398	276	515	173
1.1.1.2 Repatriation/Disinvestment	21,544	7,307	6,468	1,429	1,317	1,317
1.1.1.2.1 Equity	21,325	7,163	6,434	1,418	1,307	1,307
1.1.1.2.2 Other capital	219	145	34	11	11	11
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3–1.1.2.4)	9,144	3,785	5,056	237	1,099	651
1.1.2.1 Equity capital	5,254	2,284	3,028	222	586	209
1.1.2.2 Reinvested Earnings	2,853	1,189	1,204	238	238	238
1.1.2.3 Other Capital	4,525	1,731	1,282	134	366	295
1.1.2.4 Repatriation/Disinvestment	3,487	1,419	458	356	91	91
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3–1.2.4)	22,115	13,898	–7,817	560	281	48
1.2.1 GDRs/ADRs	–	–	–	–	–	–
1.2.2 FIIs	22,165	13,616	–8,729	684	304	72
1.2.3 Offshore funds and others	–	–	–	–	–	–
1.2.4 Portfolio investment by India	50	–283	–913	124	24	24
1 Foreign Investment Inflows	52,401	32,923	5,597	8,242	2,217	1,829

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

(US\$ Million)

Item	2017-18	2017	2018		
		Sep.	Jul.	Aug.	Sep.
	1	2	3	4	5
1 Outward Remittances under the LRS	11,333.6	1,093.3	1,222.9	1,426.9	1,138.6
1.1 Deposit	414.9	35.2	33.3	32.2	29.5
1.2 Purchase of immovable property	89.6	6.3	5.6	6.6	8.0
1.3 Investment in equity/debt	441.8	43.3	27.6	47.2	47.7
1.4 Gift	1,169.7	83.9	113.4	116.3	97.1
1.5 Donations	8.5	0.6	0.4	2.4	0.5
1.6 Travel	4,022.1	398.3	449.8	533.6	399.2
1.7 Maintenance of close relatives	2,937.4	227.0	232.5	241.2	198.7
1.8 Medical Treatment	27.5	3.8	2.5	1.7	2.0
1.9 Studies Abroad	2,021.4	278.0	343.6	419.1	335.9
1.10 Others	200.6	16.8	14.3	26.7	20.1

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

Item	2016-17	2017-18	2017	2018	
			October	September	October
	1	2	3	4	5
36-Currency Export and Trade Based Weights (Base: 2004-05=100)					
1 Trade-Based Weights					
1.1 NEER	74.65	76.94	76.33	71.16	70.05
1.2 REER	114.51	119.71	119.57	111.67	109.93
2 Export-Based Weights					
2.1 NEER	76.38	78.89	78.20	72.83	71.58
2.2 REER	116.44	121.94	121.70	113.67	111.72
6-Currency Trade Based Weights					
1 Base: 2004-05 (April-March) =100					
1.1 NEER	66.86	68.13	67.45	61.54	60.83
1.2 REER	125.17	129.87	129.43	119.33	117.63
2 Base: 2016-17 (April-March) =100					
2.1 NEER	100.00	101.90	100.89	92.04	90.98
2.2 REER	100.00	103.75	103.40	95.34	93.97

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

(US\$ Million)

Item	2017-18	2017	2018	
		Sep.	Aug.	Sep.
	1	2	3	4
1 Automatic Route				
1.1 Number	769	79	90	67
1.2 Amount	20,397	3,156	3,685	1,206
2 Approval Route				
2.1 Number	38	2	4	1
2.2 Amount	8,471	327	1,141	500
3 Total (1+2)				
3.1 Number	807	81	94	68
3.2 Amount	28,868	3,483	4,827	1,706
4 Weighted Average Maturity (in years)	6.10	6.20	4.80	4.90
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	1.34	1.26	0.94	1.18
5.2 Interest rate range for Fixed Rate Loans	0.00-12.25	0.00-11.00	0.00-12.00	1.00-12.45

No. 38: India's Overall Balance of Payments

(US \$ Million)

Item	Apr-Jun 2017 (PR)			Apr-Jun 2018 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	295,676	284,272	11,405	286,801	298,140	-11,338
1 CURRENT ACCOUNT (1.1+ 1.2)	139,941	154,920	-14,979	155,693	171,522	-15,829
1.1 MERCHANDISE	73,130	115,066	-41,936	83,389	129,137	-45,748
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	66,811	39,854	26,957	72,304	42,384	29,920
1.2.1 Services	45,916	27,607	18,308	48,174	29,475	18,699
1.2.1.1 Travel	6,242	4,851	1,391	6,448	5,907	541
1.2.1.2 Transportation	4,159	4,072	87	4,863	4,776	87
1.2.1.3 Insurance	622	352	270	606	373	233
1.2.1.4 G.n.i.e.	156	152	4	170	278	-108
1.2.1.5 Miscellaneous	34,737	18,181	16,557	36,087	18,140	17,947
1.2.1.5.1 Software Services	18,592	1,136	17,457	19,930	1,516	18,414
1.2.1.5.2 Business Services	8,467	8,279	188	9,436	9,461	-26
1.2.1.5.3 Financial Services	1,174	1,218	-44	1,111	744	367
1.2.1.5.4 Communication Services	548	237	310	522	232	290
1.2.2 Transfers	16,148	1,657	14,491	18,803	1,772	17,031
1.2.2.1 Official	92	204	-112	41	225	-184
1.2.2.2 Private	16,056	1,453	14,603	18,763	1,547	17,216
1.2.3 Income	4,747	10,590	-5,842	5,327	11,138	-5,811
1.2.3.1 Investment Income	3,605	10,043	-6,438	4,183	10,538	-6,355
1.2.3.2 Compensation of Employees	1,143	547	596	1,144	600	544
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	155,736	128,790	26,946	131,108	125,846	5,262
2.1 Foreign Investment (2.1.1+2.1.2)	92,604	73,008	19,595	77,565	76,014	1,551
2.1.1 Foreign Direct Investment	15,305	8,161	7,144	17,112	7,416	9,697
2.1.1.1 In India	14,597	4,449	10,148	16,836	3,834	13,003
2.1.1.1.1 Equity	10,563	4,327	6,236	12,907	3,821	9,085
2.1.1.1.2 Reinvested Earnings	2,924	-	2,924	3,220	-	3,220
2.1.1.1.3 Other Capital	1,110	122	988	710	12	698
2.1.1.2 Abroad	708	3,712	-3,004	276	3,582	-3,306
2.1.1.2.1 Equity	708	1,760	-1,052	276	2,233	-1,957
2.1.1.2.2 Reinvested Earnings	-	713	-713	-	729	-729
2.1.1.2.3 Other Capital	0	1,239	-1,239	0	621	-621
2.1.2 Portfolio Investment	77,299	64,847	12,452	60,453	68,598	-8,145
2.1.2.1 In India	76,134	64,213	11,921	59,138	68,244	-9,106
2.1.2.1.1 FIIs	76,134	64,213	11,921	59,138	68,244	-9,106
2.1.2.1.1.1 Equity	57,425	56,726	699	49,357	52,107	-2,749
2.1.2.1.1.2 Debt	18,709	7,487	11,222	9,781	16,137	-6,356
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	1,165	634	530	1,315	354	961
2.2 Loans (2.2.1+2.2.2+2.2.3)	34,680	33,752	927	18,763	22,394	-3,630
2.2.1 External Assistance	1,826	1,141	685	1,876	1,350	526
2.2.1.1 By India	14	31	-17	12	31	-19
2.2.1.2 To India	1,812	1,110	702	1,864	1,319	545
2.2.2 Commercial Borrowings	6,380	6,719	-338	4,738	5,405	-666
2.2.2.1 By India	2,438	2,283	156	1,718	1,519	199
2.2.2.2 To India	3,942	4,436	-494	3,020	3,886	-866
2.2.3 Short Term to India	26,474	25,893	580	12,149	15,639	-3,490
2.2.3.1 Suppliers' Credit > 180 days & Buyers' Credit	25,735	25,893	-159	5,613	15,639	-10,026
2.2.3.2 Suppliers' Credit up to 180 days	739	0	739	6,536	0	6,536
2.3 Banking Capital (2.3.1+2.3.2)	21,607	14,801	6,807	28,806	18,745	10,061
2.3.1 Commercial Banks	21,607	14,383	7,225	28,806	18,231	10,575
2.3.1.1 Assets	7,589	1,217	6,373	11,158	5,690	5,468
2.3.1.2 Liabilities	14,018	13,166	852	17,648	12,541	5,106
2.3.1.2.1 Non-Resident Deposits	12,799	11,561	1,237	15,578	12,067	3,512
2.3.2 Others	0	418	-418	0	513	-513
2.4 Rupee Debt Service	0	23	-23	0	23	-23
2.5 Other Capital	6,845	7,205	-360	5,974	8,672	-2,697
3 Errors & Omissions	-	562	-562	-	772	-772
4 Monetary Movements (4.1+ 4.2)	0	11,405	-11,405	11,338	0	11,338
4.1 I.M.F.	-	-	-	-	-	-
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	11,405	-11,405	11,338	0	11,338

No. 39: India's Overall Balance of Payments

(₹ Billion)

Item	Apr-Jun 2017 (PR)			Apr-Jun 2018 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	19,059	18,324	735	19,213	19,972	-760
1 CURRENT ACCOUNT (1.1+ 1.2)	9,020	9,986	-966	10,430	11,490	-1,060
1.1 MERCHANDISE	4,714	7,417	-2,703	5,586	8,651	-3,065
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	4,307	2,569	1,738	4,844	2,839	2,004
1.2.1 Services	2,960	1,780	1,180	3,227	1,974	1,253
1.2.1.1 Travel	402	313	90	432	396	36
1.2.1.2 Transportation	268	262	6	326	320	6
1.2.1.3 Insurance	40	23	17	41	25	16
1.2.1.4 G.n.i.e.	10	10	0	11	19	-7
1.2.1.5 Miscellaneous	2,239	1,172	1,067	2,417	1,215	1,202
1.2.1.5.1 Software Services	1,198	73	1,125	1,335	102	1,234
1.2.1.5.2 Business Services	546	534	12	632	634	-2
1.2.1.5.3 Financial Services	76	78	-3	74	50	25
1.2.1.5.4 Communication Services	35	15	20	35	16	19
1.2.2 Transfers	1,041	107	934	1,260	119	1,141
1.2.2.1 Official	6	13	-7	3	15	-12
1.2.2.2 Private	1,035	94	941	1,257	104	1,153
1.2.3 Income	306	683	-377	357	746	-389
1.2.3.1 Investment Income	232	647	-415	280	706	-426
1.2.3.2 Compensation of Employees	74	35	38	77	40	36
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	10,038	8,302	1,737	8,783	8,430	352
2.1 Foreign Investment (2.1.1+2.1.2)	5,969	4,706	1,263	5,196	5,092	104
2.1.1 Foreign Direct Investment	987	526	460	1,146	497	650
2.1.1.1 In India	941	287	654	1,128	257	871
2.1.1.1.1 Equity	681	279	402	865	256	609
2.1.1.1.2 Reinvested Earnings	188	0	188	216	0	216
2.1.1.1.3 Other Capital	72	8	64	48	1	47
2.1.1.2 Abroad	46	239	-194	18	240	-221
2.1.1.2.1 Equity	46	113	-68	18	150	-131
2.1.1.2.2 Reinvested Earnings	0	46	-46	0	49	-49
2.1.1.2.3 Other Capital	0	80	-80	0	42	-42
2.1.2 Portfolio Investment	4,983	4,180	803	4,050	4,595	-546
2.1.2.1 In India	4,907	4,139	768	3,962	4,572	-610
2.1.2.1.1 FIIs	4,907	4,139	768	3,962	4,572	-610
2.1.2.1.1.1 Equity	3,702	3,656	45	3,306	3,491	-184
2.1.2.1.1.2 Debt	1,206	483	723	655	1,081	-426
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	75	41	34	88	24	64
2.2 Loans (2.2.1+2.2.2+2.2.3)	2,235	2,176	60	1,257	1,500	-243
2.2.1 External Assistance	118	74	44	126	90	35
2.2.1.1 By India	1	2	-1	1	2	-1
2.2.1.2 To India	117	72	45	125	88	37
2.2.2 Commercial Borrowings	411	433	-22	317	362	-45
2.2.2.1 By India	157	147	10	115	102	13
2.2.2.2 To India	254	286	-32	202	260	-58
2.2.3 Short Term to India	1,706	1,669	37	814	1,048	-234
2.2.3.1 Suppliers' Credit > 180 days & Buyers' Credit	1,659	1,669	-10	376	1,048	-672
2.2.3.2 Suppliers' Credit up to 180 days	48	0	48	438	0	438
2.3 Banking Capital (2.3.1+2.3.2)	1,393	954	439	1,930	1,256	674
2.3.1 Commercial Banks	1,393	927	466	1,930	1,221	708
2.3.1.1 Assets	489	78	411	747	381	366
2.3.1.2 Liabilities	904	849	55	1,182	840	342
2.3.1.2.1 Non-Resident Deposits	825	745	80	1,044	808	235
2.3.2 Others	0	27	-27	0	34	-34
2.4 Rupee Debt Service	0	1	-1	0	2	-2
2.5 Other Capital	441	464	-23	400	581	-181
3 Errors & Omissions	0	36	-36	0	52	-52
4 Monetary Movements (4.1+ 4.2)	0	735	-735	760	0	760
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	735	-735	760	0	760

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

(US \$ Million)

Item	Apr-Jun 2017 (PR)			Apr-Jun 2018 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	139,935	154,900	-14,966	155,692	171,499	-15,807
1.A Goods and Services (1.A.a+1.A.b)	119,045	142,673	-23,628	131,563	158,612	-27,049
1.A.a Goods (1.A.a.1 to 1.A.a.3)	73,130	115,066	-41,936	83,389	129,137	-45,748
1.A.a.1 General merchandise on a BOP basis	73,098	103,799	-30,702	84,567	120,694	-36,127
1.A.a.2 Net exports of goods under merchandising	32	-	32	-1,178	-	-1,178
1.A.a.3 Nonmonetary gold	-	11,266	-11,266	-	8,444	-8,444
1.A.b Services (1.A.b.1 to 1.A.b.13)	45,916	27,607	18,308	48,174	29,475	18,699
1.A.b.1 Manufacturing services on physical inputs owned by others	26	9	17	25	10	15
1.A.b.2 Maintenance and repair services n.i.e.	57	153	-96	40	207	-167
1.A.b.3 Transport	4,159	4,072	87	4,863	4,776	87
1.A.b.4 Travel	6,242	4,851	1,391	6,448	5,907	541
1.A.b.5 Construction	675	286	388	1,010	649	361
1.A.b.6 Insurance and pension services	622	352	270	606	373	233
1.A.b.7 Financial services	1,174	1,218	-44	1,111	744	367
1.A.b.8 Charges for the use of intellectual property n.i.e.	162	1,954	-1,792	228	2,087	-1,859
1.A.b.9 Telecommunications, computer, and information services	19,210	1,476	17,734	20,556	1,882	18,673
1.A.b.10 Other business services	8,467	8,279	188	9,436	9,461	-26
1.A.b.11 Personal, cultural, and recreational services	402	467	-65	496	565	-69
1.A.b.12 Government goods and services n.i.e.	156	152	4	170	278	-108
1.A.b.13 Others n.i.e.	4,566	4,339	227	3,185	2,535	651
1.B Primary Income (1.B.1 to 1.B.3)	4,747	10,590	-5,842	5,327	11,138	-5,811
1.B.1 Compensation of employees	1,143	547	596	1,144	600	544
1.B.2 Investment income	2,679	9,876	-7,197	3,534	10,361	-6,827
1.B.2.1 Direct investment	1,504	4,686	-3,182	1,760	4,383	-2,624
1.B.2.2 Portfolio investment	70	2,298	-2,228	34	2,361	-2,326
1.B.2.3 Other investment	186	2,891	-2,705	210	3,606	-3,395
1.B.2.4 Reserve assets	919	0	919	1,530	12	1,518
1.B.3 Other primary income	925	167	759	650	177	472
1.C Secondary Income (1.C.1+1.C.2)	16,142	1,638	14,504	18,803	1,750	17,053
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	16,056	1,453	14,603	18,763	1,547	17,216
1.C.1.1 Personal transfers (Current transfers between resident and/	15,504	1,121	14,382	18,172	1,141	17,031
1.C.1.2 Other current transfers	553	332	221	591	406	184
1.C.2 General government	86	185	-99	40	203	-163
2 Capital Account (2.1+2.2)	114	102	12	111	94	17
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	75	39	35	66	16	51
2.2 Capital transfers	39	63	-23	45	78	-33
3 Financial Account (3.1 to 3.5)	155,628	140,111	15,516	142,336	125,775	16,561
3.1 Direct Investment (3.1A+3.1B)	15,305	8,161	7,144	17,112	7,416	9,697
3.1.A Direct Investment in India	14,597	4,449	10,148	16,836	3,834	13,003
3.1.A.1 Equity and investment fund shares	13,487	4,327	9,160	16,126	3,821	12,305
3.1.A.1.1 Equity other than reinvestment of earnings	10,563	4,327	6,236	12,907	3,821	9,085
3.1.A.1.2 Reinvestment of earnings	2,924	-	2,924	3,220	-	3,220
3.1.A.2 Debt instruments	1,110	122	988	710	12	698
3.1.A.2.1 Direct investor in direct investment enterprises	1,110	122	988	710	12	698
3.1.B Direct Investment by India	708	3,712	-3,004	276	3,582	-3,306
3.1.B.1 Equity and investment fund shares	708	2,473	-1,765	276	2,961	-2,686
3.1.B.1.1 Equity other than reinvestment of earnings	708	1,760	-1,052	276	2,233	-1,957
3.1.B.1.2 Reinvestment of earnings	-	713	-713	-	729	-729
3.1.B.2 Debt instruments	-	1,239	-1,239	-	621	-621
3.1.B.2.1 Direct investor in direct investment enterprises	-	1,239	-1,239	-	621	-621
3.2 Portfolio Investment	77,299	64,847	12,452	60,453	68,598	-8,145
3.2.A Portfolio Investment in India	76,134	64,213	11,921	59,138	68,244	-9,106
3.2.1 Equity and investment fund shares	57,425	56,726	699	49,357	52,107	-2,749
3.2.2 Debt securities	18,709	7,487	11,222	9,781	16,137	-6,356
3.2.B Portfolio Investment by India	1,165	634	530	1,315	354	961
3.3 Financial derivatives (other than reserves) and employee stock options	4,737	5,946	-1,209	3,631	5,113	-1,482
3.4 Other investment	58,287	49,752	8,535	49,802	44,648	5,153
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	12,799	11,980	819	15,578	12,580	2,998
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	418	-418	0	513	-513
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	12,799	11,561	1,237	15,578	12,067	3,512
3.4.2.3 General government	-	-	-	-	-	-
3.4.2.4 Other sectors	-	-	-	-	-	-
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	17,015	10,680	6,334	19,842	12,919	6,923
3.4.3.A Loans to India	14,562	8,367	6,196	18,112	11,369	6,743
3.4.3.B Loans by India	2,452	2,314	138	1,730	1,550	180
3.4.4 Insurance, pension, and standardized guarantee schemes	14	589	-575	102	635	-533
3.4.5 Trade credit and advances	26,474	25,893	580	12,149	15,639	-3,490
3.4.6 Other accounts receivable/payable - other	1,986	610	1,376	2,131	2,875	-745
3.4.7 Special drawing rights	-	-	-	-	-	-
3.5 Reserve assets	0	11,405	-11,405	11,338	0	11,338
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	11,405	-11,405	11,338	0	11,338
4 Total assets/liabilities	155,628	140,111	15,516	142,336	125,775	16,561
4.1 Equity and investment fund shares	77,535	70,695	6,840	70,807	64,991	5,816
4.2 Debt instruments	76,106	57,402	18,705	58,060	57,908	152
4.3 Other financial assets and liabilities	1,986	12,015	-10,029	13,469	2,875	10,594
5 Net errors and omissions	-	562	-562	-	772	-772

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

(₹ Billion)

Item	Apr-Jun 2017 (PR)			Apr-Jun 2018 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	9,020	9,985	-965	10,430	11,489	-1,059
1.A Goods and Services (1.A.a+1.A.b)	7,673	9,196	-1,523	8,813	10,625	-1,812
1.A.a Goods (1.A.a.1 to 1.A.a.3)	4,714	7,417	-2,703	5,586	8,651	-3,065
1.A.a.1 General merchandise on a BOP basis	4,712	6,691	-1,979	5,665	8,085	-2,420
1.A.a.2 Net exports of goods under merchandising	2	-	2	-79	-	-79
1.A.a.3 Nonmonetary gold	-	726	-726	-	566	-566
1.A.b Services (1.A.b.1 to 1.A.b.13)	2,960	1,780	1,180	3,227	1,974	1,253
1.A.b.1 Manufacturing services on physical inputs owned by others	2	1	1	2	1	1
1.A.b.2 Maintenance and repair services n.i.e.	4	10	-6	3	14	-11
1.A.b.3 Transport	268	262	6	326	320	6
1.A.b.4 Travel	402	313	90	432	396	36
1.A.b.5 Construction	43	18	25	68	43	24
1.A.b.6 Insurance and pension services	40	23	17	41	25	16
1.A.b.7 Financial services	76	78	-3	74	50	25
1.A.b.8 Charges for the use of intellectual property n.i.e.	10	126	-116	15	140	-125
1.A.b.9 Telecommunications, computer, and information services	1,238	95	1,143	1,377	126	1,251
1.A.b.10 Other business services	546	534	12	632	634	-2
1.A.b.11 Personal, cultural, and recreational services	26	30	-4	33	38	-5
1.A.b.12 Government goods and services n.i.e.	10	10	0	11	19	-7
1.A.b.13 Others n.i.e.	294	280	15	213	170	44
1.B Primary Income (1.B.1 to 1.B.3)	306	683	-377	357	746	-389
1.B.1 Compensation of employees	74	35	38	77	40	36
1.B.2 Investment income	173	637	-464	237	694	-457
1.B.2.1 Direct investment	97	302	-205	118	294	-176
1.B.2.2 Portfolio investment	5	148	-144	2	158	-156
1.B.2.3 Other investment	12	186	-174	14	242	-227
1.B.2.4 Reserve assets	59	0	59	102	1	102
1.B.3 Other primary income	60	11	49	44	12	32
1.C Secondary Income (1.C.1+1.C.2)	1,040	106	935	1,260	117	1,142
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	1,035	94	941	1,257	104	1,153
1.C.1.1 Personal transfers (Current transfers between resident and/	999	72	927	1,217	76	1,141
1.C.1.2 Other current transfers	36	21	14	40	27	12
1.C.2 General government	6	12	-6	3	14	-11
2 Capital Account (2.1+2.2)	7	7	1	7	6	1
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	5	3	2	4	1	3
2.2 Capital transfers	3	4	-2	3	5	-2
3 Financial Account (3.1 to 3.5)	10,032	9,031	1,000	9,535	8,426	1,109
3.1 Direct Investment (3.1A+3.1B)	987	526	460	1,146	497	650
3.1.A Direct Investment in India	941	287	654	1,128	257	871
3.1.A.1 Equity and investment fund shares	869	279	590	1,080	256	824
3.1.A.1.1 Equity other than reinvestment of earnings	681	279	402	865	256	609
3.1.A.1.2 Reinvestment of earnings	188	0	188	216	0	216
3.1.A.2 Debt instruments	72	8	64	48	1	47
3.1.A.2.1 Direct investor in direct investment enterprises	72	8	64	48	1	47
3.1.B Direct Investment by India	46	239	-194	18	240	-221
3.1.B.1 Equity and investment fund shares	46	159	-114	18	198	-180
3.1.B.1.1 Equity other than reinvestment of earnings	46	113	-68	18	150	-131
3.1.B.1.2 Reinvestment of earnings	0	46	-46	0	49	-49
3.1.B.2 Debt instruments	0	80	-80	0	42	-42
3.1.B.2.1 Direct investor in direct investment enterprises	0	80	-80	0	42	-42
3.2 Portfolio Investment	4,983	4,180	803	4,050	4,595	-546
3.2.A Portfolio Investment in India	4,907	4,139	768	3,962	4,572	-610
3.2.1 Equity and investment fund shares	3,702	3,656	45	3,306	3,491	-184
3.2.2 Debt securities	1,206	483	723	655	1,081	-426
3.2.B Portfolio Investment by India	75	41	34	88	24	64
3.3 Financial derivatives (other than reserves) and employee stock options	305	383	-78	243	343	-99
3.4 Other investment	3,757	3,207	550	3,336	2,991	345
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	825	772	53	1,044	843	201
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	27	-27	0	34	-34
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	825	745	80	1,044	808	235
3.4.2.3 General government	-	-	-	-	-	-
3.4.2.4 Other sectors	-	-	-	-	-	-
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	1,097	688	408	1,329	865	464
3.4.3.A Loans to India	939	539	399	1,213	762	452
3.4.3.B Loans by India	158	149	9	116	104	12
3.4.4 Insurance, pension, and standardized guarantee schemes	1	38	-37	7	43	-36
3.4.5 Trade credit and advances	1,706	1,669	37	814	1,048	-234
3.4.6 Other accounts receivable/payable - other	128	39	89	143	193	-50
3.4.7 Special drawing rights	-	-	-	-	-	-
3.5 Reserve assets	0	735	-735	760	0	760
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	735	-735	760	0	760
4 Total assets/liabilities	10,032	9,031	1,000	9,535	8,426	1,109
4.1 Equity and investment fund shares	4,998	4,557	441	4,743	4,354	390
4.2 Debt instruments	4,906	3,700	1,206	3,889	3,879	10
4.3 Other financial assets and liabilities	128	774	-646	902	193	710
5 Net errors and omissions	-	36	-36	-	52	-52

No. 42: International Investment Position

(US \$ Million)

Item	As on Financial Year /Quarter End							
	2017-18		2017		2018			
			Jun.		Mar.		Jun.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
1	2	3	4	5	6	7	8	
1 Direct Investment Abroad/in India	157,373	379,279	151,233	353,366	157,373	379,279	160,680	372,193
1.1 Equity Capital and Reinvested Earnings	103,734	363,190	100,879	337,476	103,734	363,190	106,419	356,508
1.2 Other Capital	53,640	16,089	50,354	15,890	53,640	16,089	54,260	15,685
2 Portfolio Investment	2,665	272,409	2,084	251,123	2,665	272,409	1,704	254,506
2.1 Equity	1,246	155,106	2,021	154,913	1,246	155,106	1,477	144,433
2.2 Debt	1,418	117,303	63	96,210	1,418	117,303	227	110,073
3 Other Investment	48,235	400,636	42,415	378,569	48,235	400,636	44,264	392,078
3.1 Trade Credit	1,696	103,155	1,154	89,580	1,696	103,155	1,357	99,582
3.2 Loan	8,225	159,289	5,217	158,214	8,225	159,289	8,268	157,662
3.3 Currency and Deposits	20,790	126,456	18,051	118,476	20,790	126,456	16,294	124,506
3.4 Other Assets/Liabilities	17,524	11,736	17,994	12,299	17,524	11,736	18,345	10,328
4 Reserves	424,545	–	386,539	–	424,545	–	405,740	–
5 Total Assets/ Liabilities	632,818	1,052,324	582,272	983,058	632,818	1,052,324	612,387	1,018,778
6 IIP (Assets - Liabilities)		–419,505		–400,786		–419,505		–406,390

Payment and Settlement Systems

No. 43: Payment System Indicators

System	Volume (Million)				Value (₹ Billion)			
	2017-18	2018			2017-18	2018		
		Jul.	Aug.	Sep.		Jul.	Aug.	Sep.
	1	2	3	4	5	6	7	8
1 RTGS	124.46	10.97	11.01	10.40	1,467,431.99	138,628.54	138,236.20	131,257.97
1.1 Customer Transactions	120.71	10.69	10.74	10.14	1,036,698.74	99,646.35	97,993.53	91,806.84
1.2 Interbank Transactions	3.72	0.28	0.27	0.26	130,426.03	12,366.56	11,220.57	12,230.50
1.3 Interbank Clearing	0.024	0.002	0.002	0.002	300,307.22	26,615.63	29,022.11	27,220.63
2 CCIL Operated Systems	3.50	0.31	0.30	0.31	1,074,802.02	95,221.90	91,744.59	93,394.77
2.1 CBLO	0.20	0.02	0.02	0.02	283,307.58	27,040.28	24,676.92	25,897.95
2.2 Govt. Securities Clearing	1.12	0.08	0.08	0.09	370,363.78	29,828.79	29,516.02	30,728.67
2.2.1 Outright	0.92	0.06	0.06	0.07	113,998.80	6,654.82	7,284.65	7,560.09
2.2.2 Repo	0.199	0.020	0.018	0.017	256,364.98	23,173.97	22,231.38	23,168.58
2.3 Forex Clearing	2.17	0.21	0.20	0.20	421,130.66	38,352.83	37,551.65	36,768.15
3 Paper Clearing	1,171.31	95.38	91.13	88.02	81,934.93	6,833.38	6,428.11	6,343.67
3.1 Cheque Truncation System (CTS)	1,138.05	94.19	90.07	87.28	79,451.24	6,749.96	6,355.16	6,289.79
3.2 MICR Clearing	-	-	-	-	-	-	-	-
3.2.1 RBI Centres	-	-	-	-	-	-	-	-
3.2.2 Other Centres	-	-	-	-	-	-	-	-
3.3 Non-MICR Clearing	33.27	1.19	1.06	0.74	2,483.68	83.42	72.95	53.89
4 Retail Electronic Clearing	5,467.29	564.94	587.20	552.46	192,017.98	19,621.30	21,071.67	20,328.48
4.1 ECS DR	1.54	0.04	0.05	0.04	9.72	0.28	0.29	0.31
4.2 ECS CR (includes NECS)	6.14	0.57	0.41	0.52	118.64	13.90	9.73	10.28
4.3 EFT/NEFT	1,946.36	180.60	193.20	181.01	172,228.52	17,321.37	18,712.45	18,015.50
4.4 Immediate Payment Service (IMPS)	1,009.80	127.38	133.58	135.74	8,924.98	1,171.67	1,237.34	1,256.40
4.5 National Automated Clearing House (NACH)	2,503.46	256.35	259.96	235.15	10,736.12	1,114.09	1,111.87	1,046.00
5 Cards	13,358.62	1,294.92	1,307.74	1,300.42	38,214.64	3,648.13	3,733.16	3,613.73
5.1 Credit Cards	1,412.97	145.81	145.04	139.03	4,626.33	481.31	483.68	464.72
5.1.1 Usage at ATMs	7.81	0.80	0.84	0.80	36.68	3.72	3.86	3.72
5.1.2 Usage at POS	1,405.16	145.01	144.20	138.23	4,589.65	477.58	479.82	461.01
5.2 Debit Cards	11,945.65	1,149.11	1,162.69	1,161.39	33,588.31	3,166.82	3,249.48	3,149.01
5.2.1 Usage at ATMs	8,602.26	781.76	805.52	798.65	28,987.61	2,683.76	2,759.76	2,690.60
5.2.2 Usage at POS	3,343.39	367.35	357.17	362.75	4,600.70	483.06	489.72	458.41
6 Prepaid Payment Instruments (PPIs)	3,459.05	351.80	372.94	357.86	1,416.34	175.19	189.81	177.49
6.1 m-Wallet	3,025.98	325.18	340.65	324.16	1,086.75	152.02	155.73	151.02
6.2 PPI Cards	432.63	26.62	32.29	33.70	310.41	23.16	34.08	26.47
6.3 Paper Vouchers	0.44	-	-	-	19.19	-	-	-
7 Mobile Banking	1,872.26	340.49	385.81	477.57	14,738.54	2,091.86	2,021.90	2,074.95
8 Cards Outstanding	898.56	1,002.15	1,021.23	1,031.55	-	-	-	-
8.1 Credit Card	37.48	40.15	41.03	41.76	-	-	-	-
8.2 Debit Card	861.08	962.00	980.20	989.79	-	-	-	-
9 Number of ATMs (in actuals)	222247	221463	221083	221492	-	-	-	-
10 Number of POS (in actuals)	3083067	3268817	3332484	3393396	-	-	-	-
11 Grand Total (1.1+1.2+2+3+4+5+6)	23,584.20	2,318.31	2,370.31	2,309.47	2,555,510.68	237,512.82	232,381.44	227,895.49

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.

Occasional Series

No. 44: Small Savings

(₹ Billion)

Scheme		2016-17	2017		2018	
			Feb.	Dec.	Jan.	Feb.
		1	2	3	4	5
1 Small Savings	Receipts	4,341.75	418.42	75.86	69.79	59.21
	Outstanding	7,312.73	7,244.24	7,791.39	7,860.86	7,919.97
1.1 Total Deposits	Receipts	3,879.55	307.76	66.42	57.38	46.20
	Outstanding	4,689.77	4,661.62	5,094.14	5,151.52	5,197.72
1.1.1 Post Office Saving Bank Deposits	Receipts	2,474.46	183.34	21.91	23.88	15.11
	Outstanding	920.64	926.38	1,027.95	1,051.83	1,066.94
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	0.56	0.04	-0.25	-0.24	-0.19
	Outstanding	33.01	32.73	30.75	30.51	30.32
1.1.4 National Saving Scheme, 1992	Receipts	0.01	0.00	-0.05	-0.04	-0.68
	Outstanding	-0.48	-0.36	0.26	0.22	-0.46
1.1.5 Monthly Income Scheme	Receipts	353.34	32.40	4.64	6.35	5.27
	Outstanding	1,800.66	1,800.78	1,796.39	1,802.74	1,808.01
1.1.6 Senior Citizen Scheme 2004	Receipts	100.02	10.23	9.24	10.16	10.39
	Outstanding	294.53	284.14	385.35	395.51	405.90
1.1.7 Post Office Time Deposits	Receipts	476.65	44.02	20.38	19.88	15.00
	Outstanding	796.58	782.52	939.02	958.90	973.90
1.1.7.1 1 year Time Deposits	Outstanding	518.38	514.82	577.61	585.35	590.68
1.1.7.2 2 year Time Deposits	Outstanding	36.58	35.66	44.30	45.07	45.59
1.1.7.3 3 year Time Deposits	Outstanding	51.77	51.22	58.38	59.50	60.36
1.1.7.4 5 year Time Deposits	Outstanding	189.85	180.82	258.73	268.98	277.27
1.1.8 Post Office Recurring Deposits	Receipts	474.51	37.83	11.11	-2.61	1.30
	Outstanding	844.53	835.13	914.88	912.27	913.57
1.1.9 Post Office Cumulative Time Deposits	Receipts	0.00	-0.10	-0.56	0.00	0.00
	Outstanding	0.08	0.08	-0.68	-0.68	-0.68
1.1.10 Other Deposits	Receipts	0.00	0.00	0.00	0.00	0.00
	Outstanding	0.22	0.22	0.22	0.22	0.22
1.2 Saving Certificates	Receipts	289.85	34.64	6.60	8.35	7.90
	Outstanding	1,989.35	1,976.30	2,043.70	2,051.73	2,059.53
1.2.1 National Savings Certificate VIII issue	Receipts	120.63	18.11	3.81	6.15	5.83
	Outstanding	872.39	869.85	850.07	856.22	862.05
1.2.2 Indira Vikas Patras	Receipts	0.00	0.00	2.35	0.00	-0.01
	Outstanding	8.86	8.89	11.05	11.05	11.04
1.2.3 Kisan Vikas Patras	Receipts	-0.01	0.04	-19.25	-15.70	-12.80
	Outstanding	535.72	548.69	417.27	401.57	388.77
1.2.4 Kisan Vikas Patras - 2014	Receipts	169.23	16.49	19.72	17.95	14.89
	Outstanding	460.23	435.58	654.99	672.94	687.83
1.2.5 National Saving Certificate VI issue	Receipts	0.00	0.00	-0.03	-0.05	0.00
	Outstanding	-1.12	-1.09	-1.40	-1.45	-1.45
1.2.6 National Saving Certificate VII issue	Receipts	0.00	0.00	0.00	0.00	-0.01
	Outstanding	-0.62	-0.63	-0.63	-0.63	-0.64
1.2.7 Other Certificates	Outstanding	113.89	115.01	112.35	112.03	111.93
1.3 Public Provident Fund	Receipts	172.35	76.02	2.84	4.06	5.11
	Outstanding	633.61	606.32	653.55	657.61	662.72

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	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(A) Total (in ₹ Billion)	50430.94	51451.83	52813.50	53967.78	54556.81
1 Commercial Banks	39.68	40.37	41.40	42.68	41.84
2 Non-Bank PDs	0.31	0.33	0.33	0.29	0.33
3 Insurance Companies	23.13	23.49	23.63	23.49	24.24
4 Mutual Funds	1.44	1.86	1.33	1.00	1.13
5 Co-operative Banks	2.65	2.62	2.69	2.57	2.59
6 Financial Institutions	0.73	0.78	0.82	0.90	0.93
7 Corporates	1.29	1.04	1.09	0.91	1.09
8 Foreign Portfolio Investors	4.29	4.58	4.53	4.35	3.84
9 Provident Funds	6.13	5.99	5.32	5.88	5.79
10 RBI	14.29	12.84	11.94	11.62	11.63
11. Others	6.07	6.11	6.92	6.30	6.58
11.1 State Governments	1.91	1.92	1.91	1.91	1.97

State Governments Securities					
Category	2017			2018	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(B) Total (in ₹ Billion)	21467.07	22488.35	23329.53	24288.29	24954.61
1 Commercial Banks	37.94	37.64	38.13	35.79	35.02
2 Non-Bank PDs	0.45	0.38	0.51	0.51	0.75
3 Insurance Companies	33.53	34.00	33.35	34.13	34.24
4 Mutual Funds	1.89	1.92	1.68	1.64	1.20
5 Co-operative Banks	4.82	4.82	4.78	4.78	4.79
6 Financial Institutions	0.27	0.22	0.22	0.35	0.35
7 Corporates	0.11	0.11	0.13	0.15	0.16
8 Foreign Portfolio Investors	0.08	0.16	0.21	0.23	0.15
9 Provident Funds	18.10	18.37	17.05	19.67	20.34
10 RBI	0.00	0.00	0.00	0.00	0.00
11. Others	2.81	2.37	3.94	2.76	2.99
11.1 State Governments	0.00	0.00	0.01	0.05	0.06

Treasury Bills					
Category	2017			2018	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(C) Total (in ₹ Billion)	6135.01	5704.50	5102.82	3798.76	5280.07
1 Commercial Banks	53.96	52.15	48.40	60.74	55.30
2 Non-Bank PDs	1.14	1.38	1.67	2.17	1.41
3 Insurance Companies	3.20	4.32	5.22	4.17	3.66
4 Mutual Funds	15.31	12.44	10.40	2.27	7.03
5 Co-operative Banks	2.48	2.33	2.05	2.42	1.29
6 Financial Institutions	2.60	3.54	3.97	3.55	2.36
7 Corporates	1.54	1.64	2.12	2.45	1.88
8 Foreign Portfolio Investors	0.00	0.00	0.00	0.00	0.00
9 Provident Funds	0.06	0.20	0.02	0.11	0.21
10 RBI	0.00	0.00	0.00	0.00	0.00
11. Others	19.72	22.01	26.17	22.12	26.87
11.1 State Governments	16.71	18.73	21.81	16.35	23.11

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	28.0	29.0	28.6
5 Total Receipts as per cent of GDP	26.7	25.6	27.4	28.1	28.4	28.2
6 Revenue Receipts as per cent of GDP	19.7	19.2	20.0	20.5	21.4	22.0
7 Tax Receipts as per cent of GDP	16.4	16.2	16.7	17.2	18.0	18.7
8 Gross Fiscal Deficit as per cent of GDP	6.7	6.7	6.9	7.0	6.6	5.9

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

Source : Budget Documents of Central and State Governments.

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

(₹ Billion)

Sr. No	State/Union Territory	During September-2018					
		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	5.53	19	9.66	16	-	-
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	-	-	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	-	-	-	-	-	-
6	Goa	0.41	13	0.50	8	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	-	-	-	-	-	-
9	Himachal Pradesh	-	-	-	-	-	-
10	Jammu & Kashmir	-	-	1.31	4	-	-
11	Jharkhand	-	-	4.29	7	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	-	-	-	-	-	-
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	-	-	-	-	-	-
16	Manipur	-	-	-	-	-	-
17	Meghalaya	-	-	-	-	-	-
18	Mizoram	-	-	-	-	-	-
19	Nagaland	-	-	-	-	-	-
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	0.07	17	5.54	17	-	-
23	Rajasthan	-	-	-	-	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	2.27	12	4.06	9	0.70	2
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	0.01	13	1.84	13	-	-
29	West Bengal	3.60	12	5.54	10	-	-

- Notes:
1. 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.
 2. WMA is advance by Reserve Bank of India to State Governments for meeting temporary cash mismatches.
 3. OD is advanced to State Governments beyond their WMA limits.
 4. Average Availed is the total accommodation (SDF/WMA/OD) availed divided by number of days for which accommodation was extended during the month.
 5. - : Nil.

Source: Reserve Bank of India.

No. 48: Investments by State Governments

(₹ Billion)

Sr. No	State/Union Territory	As on end of September 2018			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	71.64	7.07	0.02	0
2	Arunachal Pradesh	8.69	0.00	--	0
3	Assam	44.46	0.42	0	37.00
4	Bihar	53.58	--	0	0
5	Chhattisgarh	35.02	--	0.01	2.17
6	Goa	5.00	2.50	--	0
7	Gujarat	118.78	4.11	0	0
8	Haryana	18.06	10.30	0	0
9	Himachal Pradesh	--	--	--	0
10	Jammu & Kashmir	--	--	--	0
11	Jharkhand	0	--	0	0
12	Karnataka	26.65	--	0	95.00
13	Kerala	18.68	--	0	0
14	Madhya Pradesh	--	8.02	0.00	0
15	Maharashtra	302.69	--	--	490.00
16	Manipur	3.25	0.86	0	0
17	Meghalaya	4.82	0.22	0.09	0
18	Mizoram	4.60	0.21	--	0
19	Nagaland	12.82	0.28	--	0
20	Odisha	115.77	12.50	0.73	224.00
21	Puducherry	2.77	--	--	9.65
22	Punjab	0	0	0.08	0
23	Rajasthan	--	--	1.29	62.92
24	Tamil Nadu	57.40	--	0.46	287.91
25	Telangana	41.56	6.06	0.01	0
26	Tripura	2.83	0.04	--	0
27	Uttar Pradesh	--	--	1.87	0
28	Uttarakhand	25.99	0.68	0.01	0
29	West Bengal	91.74	3.65	2.14	0
	Total	1066.79	56.92	6.70	1208.64

No. 49: Market Borrowings of State Governments

(₹ Billion)

Sr. No.	State	2016-17		2017-18		2018-19						Total amount raised, so far in 2018-19	
		Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	July		August		September		Gross	Net
						Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised		
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Andhra Pradesh	195.00	177.06	228.00	189.22	30.63	30.63	35.01	29.17	30.00	30.00	166.17	157.42
2	Arunachal Pradesh	4.53	2.87	8.88	7.03	-	-	-	-	-	-	4.00	4.00
3	Assam	30.90	19.94	77.60	67.97	10.00	10.00	15.00	15.00	4.00	4.00	44.00	44.00
4	Bihar	177.00	168.15	100.00	89.08	-	-	-	-	-	-	-	-
5	Chhattisgarh	42.00	38.98	81.00	81.00	-	-	-	-	-	-	-	-
6	Goa	13.20	11.71	18.00	14.00	1.50	1.50	1.50	1.50	2.00	2.00	9.50	9.50
7	Gujarat	247.20	209.44	240.00	157.85	-	-	10.00	10.00	25.00	15.00	85.00	75.00
8	Haryana	158.00	153.59	166.40	158.40	45.00	40.00	-	-	15.00	15.00	65.25	60.25
9	Himachal Pradesh	34.00	21.63	46.00	25.51	-	-1.03	-	-0.87	-	-1.12	15.00	11.98
10	Jammu & Kashmir	27.90	18.99	62.00	39.74	7.00	7.00	3.00	3.00	3.00	3.00	30.00	24.36
11	Jharkhand	51.54	47.25	60.00	48.07	-	-	5.00	5.00	5.00	5.00	10.00	10.00
12	Karnataka	280.07	240.26	220.98	173.48	-	-	-	-	-	-	-	-
13	Kerala	173.00	146.86	205.00	162.03	10.00	10.00	40.00	37.00	-	-	115.00	103.15
14	Madhya Pradesh	161.00	145.51	150.00	131.25	10.00	10.00	10.00	10.00	10.00	10.00	60.00	60.00
15	Maharashtra	400.00	364.72	450.00	364.80	18.84	18.84	40.00	40.00	-	-	108.69	108.69
16	Manipur	6.30	4.78	5.25	2.78	-	-	-	-	-	-	3.50	3.50
17	Meghalaya	10.01	7.18	11.16	9.20	-	-	-	-	-	-	-	-
18	Mizoram	1.70	-0.35	4.24	2.77	-	-	-	-0.27	-	-	-	-0.27
19	Nagaland	10.70	7.33	11.35	7.66	-	-	-	-	1.50	1.50	3.50	1.90
20	Odisha	76.20	69.90	84.38	84.38	10.00	10.00	5.00	5.00	5.00	5.00	45.00	45.00
21	Puducherry	5.25	5.25	8.25	4.88	-	-	-	-	1.00	-	1.00	-
22	Punjab	136.00	121.44	174.70	133.49	20.29	15.29	22.00	12.00	21.00	16.00	104.54	84.54
23	Rajasthan	160.54	143.25	249.14	167.77	25.00	25.00	35.00	35.00	50.00	45.00	200.30	172.18
24	Sikkim	7.44	5.74	9.95	7.45	3.00	3.00	-	-	2.00	2.00	5.00	5.00
25	Tamil Nadu	372.50	349.94	409.65	360.23	30.00	30.00	35.00	35.00	34.70	34.70	181.40	181.40
26	Telangana	218.61	205.79	246.00	218.28	12.50	12.50	17.50	13.33	19.68	19.68	124.68	118.43
27	Tripura	9.90	7.53	11.37	11.37	-	-	2.00	2.00	2.00	2.00	9.00	9.00
28	Uttar Pradesh	410.50	369.05	416.00	371.78	-	-	-	-10.00	-	-	80.00	50.00
29	Uttarakhand	54.50	50.81	66.60	58.30	10.50	10.50	4.50	4.50	8.50	8.50	39.50	35.00
30	West Bengal	344.31	312.30	369.11	253.04	30.00	30.00	-	-8.00	15.00	-3.00	65.00	2.47
	Grand Total	3819.79	3426.92	4191.00	3402.81	274.26	263.23	280.51	238.37	254.38	214.26	1575.02	1376.50

- : 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

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

2.4: Consist of paid-up capital and reserves.

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

Table No. 9

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

L₁ and L₂ are compiled monthly and L₃ quarterly.

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

Table No. 13

Data 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 & 1.1.1.1.4: 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 multilateral 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 temporary cash mismatches.

OD is advanced to State Governments beyond their WMA limits.

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

- : Nil.

Table No. 48

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

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

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

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

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**.

Recent Publications of the Reserve Bank of India

Name of Publication	Price	
	India	Abroad
1. Reserve Bank of India Bulletin 2018	₹300 per copy (over the counter) ₹350 per copy (inclusive of postage) ₹4,200 (one year subscription - inclusive of postage) ₹3,150 (one year concessional rate*) ₹3,360 (one year subscription - inclusive of postage [@]) ₹2,520 (one year concessional rate [@])	US\$ 15 per copy (inclusive of postage) US\$ 180 (one-year subscription) (inclusive of air mail courier charges)
2. Handbook of Statistics on the Indian States 2017-18	₹550 (Normal) ₹600 (inclusive of postage)	US\$ 24 (inclusive of air mail courier charges)
3. Handbook of Statistics on the Indian Economy 2017-18	₹700 (Normal) ₹750 (inclusive of postage) ₹525 (concessional) ₹575 (concessional with postage)	US\$ 50 (inclusive of air mail courier charges)
4. State Finances - A Study of Budgets of 2017-18 & 2018-19	₹600 per copy (over the counter) ₹650 per copy (inclusive of postal charges)	US\$ 24 per copy (inclusive air mail courier charges)
5. Report of the committee on Fuller Capital account Convertibility (Tarapore Committee Report II)	₹140 per copy (over the counter) ₹170 per copy (inclusive of postal charges)	US\$ 25 per copy ((inclusive of air mail courier charges)
6. Banking Glossary (2012)	₹80 per copy (over the counter) ₹120 per copy (inclusive of postal charges)	
7. Anuvad Ke Vividh Aayam (Hindi)	₹165 per copy (over the counter) ₹205 per copy (inclusive of postal charges)	
8. Bank Me Rajbhasha Niti Ka Karyanvayan: Dasha Aur Disha (Hindi)	₹150 per copy (over the counter) ₹200 per copy (inclusive of postal charges)	
9. Reserve Bank of India Occasional Papers Vol. 37, 2016	₹200 per copy (over the counter) ₹250 per copy (inclusive of postal charges)	US\$ 18 per copy ((inclusive of air mail courier charges)
10. Reserve Bank of India Occasional Papers Vol. 38, 2017	₹200 per copy (over the counter) ₹250 per copy (inclusive of postal charges)	US\$ 18 per copy ((inclusive of air mail courier charges)

Notes

- Many of the above publications are available at the RBI website (www.rbi.org.in).
 - Time Series data are available at the Database on Indian Economy (<http://dbie.rbi.org.in>).
 - The Reserve Bank of India History 1935-1997 (4 Volumes), Challenges to Central Banking in the Context of Financial Crisis and the Regional Economy of India: Growth and Finance are available at leading book stores in India.
- * Discount of 25% is available for students, teachers/lecturers, academic/education institutions, public libraries and Booksellers in India provided the proof of eligibility is submitted from institution.
- @ In order to promote electronic payments it has been decided to offer 20% discount to domestic subscribers who are willing to pay through NEFT.

RECENT PUBLICATIONS

General Instructions

1. Publications once sold will not be taken back.
2. Publications will not be supplied on a consignment VPP basis.
3. Wherever concessional price is not indicated, a discount of 25 per cent is available for students, teachers/lecturers, academic/education institutions, public libraries and book sellers in India provided the proof of eligibility is submitted from the concerned institution. Back issues of the publication are generally not available.
4. The publications are available for sale (Monday to Friday), at the Sales and Distribution Division, Department of Corporate Services, Reserve Bank of India, Amar Building, Ground Floor, Sir P. M. Road, Fort, P. B. No.1036, Mumbai - 400 001. The contact number of Sales Section is 022-2260 3000 Extn.: 4002, Email: spsdcs@rbi.org.in.
5. Subscription should be made preferably by NEFT & forwarding letter enclosing NEFT details should be address to to the Chief General Manager, Department of Corporate Services, Reserve Bank of India, 2nd floor, Main Building, Mumbai - 400 001.

Following information is required to be filled in NEFT form by you:

Beneficiary Name	Department of Corporates Services, RBI
Name of the Bank	Reserve Bank of India
Branch and address	Fort, Mumbai
IFSC of Bank Branch	RBIS0MBPA04
Type of Account	Current Account
Account Number	41-8691632-86
Sender to reciver information	Name of Subscriber..... Subscriber No.

6. Every endeavour will be made to despatch publications expeditiously. In case of rush of orders, dispatch will be executed on a first-come first-served basis. It may take a minimum of a month's time to complete formalities and then to dispatch the available publications. Complaints regarding 'non-receipt of publication' may be sent within a period of 2 months.
7. **Kindly send your subscription number, name, address, and email id to spsdcs@rbi.org.in enabling us to communicate with you in an efficient manner.**