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*RBI Governor's Interview**

Shaktikanta Das

In his first media interaction since the nationwide lockdown took effect to contain the spread of COVID-19, Reserve Bank of India Governor Shaktikanta Das told Cogencis that the central bank is yet to take a view on budget deficit monetisation or private placement of bonds.

Below is the full transcript of the Governor's interview to Cogencis:

(Note – Some elements of the transcript may be used with an attribution to Cogencis)

Q. RBI has emerged as the first line of defence against the impact of COVID-19, and some may say, the only line of defence. Do you think more fiscal measures are needed for the relief package to be effective? Also, what is your advice to the government? Should they suspend Fiscal Responsibility and Budget Management Act (FRBM) or monetise deficit?

A. Fiscal measures are important and the government is working on a package of measures. The finance minister has gone on record on this. I expect that the government will take a judicious and balanced call on the question of fiscal deficit, while addressing the challenges arising from the COVID-19 pandemic.

The government has taken measures to contain expenditure, like freeze on its employees' dearness allowance; at the same time, the government has announced a relief package to support the vulnerable and disadvantaged sections. Through measures like in-kind support (food grains), cash support, DBT (Direct Benefit Transfer) support or depositing money in PMJDY (PM Jan Dhan Yojana) accounts, government has committed to spend 0.8 per cent of GDP.

So, therefore, meeting the fiscal deficit target of 3.5 per cent this year is going to be very challenging, and going beyond it becomes unavoidable. Also, because of the lockdown, Goods and Services Tax (GST) collections are going to be significantly impacted, and impact on direct taxes cannot be ruled out.

While deciding on the size of the fiscal package, it would be very important to prioritise the support measures and interventions. All measures should be well targeted to optimise the outcome. Equally important is to have an exit strategy of fiscal interventions. In other words, fiscal measures under the COVID-19 package should contain specific sunset provisions. This would be in line with the recommendations of the FRBM Committee.

In terms of exceeding the fiscal deficit, two straight replies, one is the 3.5 per cent fiscal deficit target for this year will be very challenging to meet. As regards, how much it will exceed and how much the government will spend, that will depend on the view taken by the government, with regard to how much they can exceed the deficit number, and what kind of support measures can be taken that produce maximum impact.

In other words, it has to be a judicious and balanced call keeping in mind the need to support the economy on one hand and the sustainable level of fiscal deficit that is consistent with macroeconomic and financial stability.

Q. Will the RBI monetise the government deficit and will you look at private placement of gilts on your books, given that everybody realises that the only solution is to expand the central bank's balance sheet? Some of the former RBI governors have also said this may not be a bad thing to do.

* Full transcript of RBI Governor's interview to Cogencis, on April 28, 2020.

Note : Q- Question; A-Answer

A. There is an animated public discourse around this subject. Within the RBI, the debate is not new, and governors before me have had to contend with it. In fact, dealing with this issue has produced some landmark reforms like the phasing out of ad hoc treasury bills, the enactment of FRBM Act, the monetary policy framework, to name a few. For every governor who has confronted with the situation, the solutions have been based on prevailing operating conditions. To illustrate, ad hoc treasury bills were phased out over a three-year timeframe to facilitate a smooth transition to market borrowing.

On the current situation, we haven't taken a view on it. We will deal with it keeping in view the operational realities, the need to preserve the strength of the RBI's balance sheet, and most importantly, the goal of macroeconomic stability, our primary mandate. In the process, we also evaluate various alternative sources of funding too.

Q. You are not ruling out private placements?

A. (Laughs) I will not give a specific reply to your specific question. My generalised response to all such questions is that all instruments, both conventional and unconventional, are on the table. I have said this before. RBI will take a judicious and balanced judgement call, depending on how the evolving situation plays out.

Q. There is talk of the RBI indirectly or directly participating in the T-bill and bond auctions in the last two weeks. Could you explain what the advantage of RBI's participation in these auctions was?

A. Let me say very clearly, we have not participated in any primary auction so far. Our financial market operations as well as debt management activities warrant participating in the secondary market from time to time for a variety of reasons such as elongation of debt maturity, filling up gaps in the maturity spectrum of our holdings and the like.

Q. Could COVID-19 bonds, which may be long maturity bonds that the government places with RBI, be an option?

A. This is the same question as the one you asked on private placement. What you are perhaps suggesting is that COVID bonds could be among the instruments of private placement. As I said earlier, we have not taken any view on the subject. When the time comes, we will take a judicious and balanced view, keeping in mind the parameters I set out earlier.

Q. Were you surprised that banks did not participate in the Targeted Long Term Repo Operations (TLTROs) 2.0? The RBI has been proactive but banks just didn't come to the table.

A. We had a sense that the response may not be as good as TLTRO, despite the additional incentives such as exemption from being reckoned as adjusted net bank credit. The auction results convey a telling message, which is that the banks are not willing to take on credit risk in their balance sheets beyond a point. We are reviewing the whole situation and based on that, we would decide on our approach.

Q. Would that mean a move to more general liquidity tools like Long Term Repo Operations (LTROs) or TLTROs?

A. That I cannot say, but the underlying challenge of ensuring flows to the mid-sized and small-sized NBFCs and microfinance institutions, still remains. That is an issue that is very much on our table. We will take further measures as necessary to address that challenge. The RBI remains in battle-ready mode.

Q. There are many parallels drawn between 2008 and 2020. While 2008 was more a financial sector problem spilling over to the real sector, this time it is a real sector problem which is being

addressed through financial sector. This may be a necessary condition but not a sufficient one to bring the economy back on track. To that extent would you acknowledge that the role the central bank can play is limited?

A. The central bank's role should not be underestimated. Monetary policy, liquidity management, financial regulation and supervision are very powerful tools and are known to have lasting effects on economic and financial conditions. That said, we are dealing with a pandemic superimposed on a slowdown. The response has to be a coordinated one, with all arms of public policy as well as other stakeholders in the economy pulling together and working in close cooperation. Obviously, the government has a very important role in the response to the crisis.

Q. You mentioned the exit from stimulus measures earlier. Even in 2008-09, it was easy to enter the 'chakravyuh' but difficult to get out of it. How do you ensure we don't cause new problems with our crisis response?

A. This is a pertinent question you have asked, as there has to be a very well calibrated and well thought out roadmap for entry and exit. The mantra of coming out of the 'chakravyuh' has to also be thought through very carefully and be factored in when entering the 'chakravyuh'. So, both have to be done simultaneously. Whether it relates to fiscal deficit or liquidity or any other extraordinary measure, it has to be applied in time, and the exit also has to be made in time.

To ensure the markets don't read me differently and think that RBI is going on a tightening mode, let me make it very clear: the exit has to be well-timed, when you are confident that things are working and near normal. It should not be premature. At the same time, it should not be delayed beyond a point, in the interest of all.

Q. Will the exit decision be more difficult than the entry at this point?

A. (Laughs) In the current juncture, all decision-making is very tough. It is an extraordinarily challenging situation, but both decisions on entering and exiting from the 'chakravyuh' are important.

Q. You have taken the decision to widen the policy corridor by cutting reverse repo. What is the rationale there as markets are treating reverse repo as the operative rate thanks to abundant liquidity? Would the corridor stay wide, even in future if the MPC acts on repo?

A. Please note that the single policy rate is the repo rate, as decided by the MPC, and it alone conveys the stance of monetary policy. Reverse repo rate, on the other hand, is essentially a liquidity management tool.

With regard to the corridor being wider and having a lower reverse repo rate, this issue has been discussed in MPC earlier. The reverse repo decision is very much in the domain of the RBI; but having said that, let me reiterate that having a wider corridor and lowering of reverse repo rate has been discussed several times earlier in the MPC.

Even in the last MPC (meeting), when we reduced the repo rate by 75 basis points, we reduced the reverse repo rate by 90 bps. The MPC was fully briefed about the rationale for our decision on reverse repo. The MPC was very much taken into confidence, so far as the RBI thought process was concerned.

On widening or narrowing of the corridor, even in April 2017, the corridor was narrowed to 25 bps, and it was not an MPC decision, it was an RBI decision. Even this time, it was an RBI decision, but the RBI thought process had been shared with MPC members even during earlier meetings.

Through a lower reverse repo rate, we are offering an adverse rate in our liquidity absorptions and thereby seeking to incentivise banks to stop passively depositing funds with the RBI and instead lend to the productive sectors of the economy.

Q. Is reverse repo effectively the operative rate, as that's not the intention of the MPC?

A. No. I want to repeat for the benefit of your readers: the repo rate is the single policy rate and it alone conveys the stance of monetary policy. The lowering of reverse repo rate should be seen as a transient arrangement necessitated by the imperatives of liquidity management, specifically, a huge overhang of liquidity. We live in extraordinary times and our policy responses have to be out of the ordinary. But do bear in mind that our critical active operations such as LTRO, TLTROs, lines of credit and the like are all at the policy repo rate or closely aligned to it.

Q. Is it time to bring in Standing Deposit Facility (SDF) as approvals are already in place? Has an SDF rate been decided?

A. That instrument is always available with RBI and it can be activated at any moment. We have not taken a final view on the rate yet.

Q. Any concern that the wider LAF corridor can accentuate some outflows, when capital outflows emerge driven by risk aversion towards emerging markets?

A. As regards foreign exchange markets, if you compare India with other emerging markets, I think the depreciation of the Indian rupee has been orderly and much less than other comparable emerging markets. I am talking about the trends during the pandemic situation of the last one-and-a-half months.

I won't rule out the possibility of inflows picking up. That can also happen with so much of liquidity in the advanced economies, it will naturally spill over to economies like India which have strong macroeconomic fundamentals. As far as the Indian economy is concerned, even compared to the aftermath of the global financial crisis, we are better placed in a comparative sense.

In any case, the RBI has enough forex reserves. They are robust and we will be able to deal with any eventuality.

Q. Has the US Federal Reserve committed to provide dollar support to RBI, if needed?

A. Federal Reserve has come out with a general policy and opened up a dollar repo window for central banks. That option is available for a large number of countries. We also have a bilateral swap arrangement with Bank of Japan.

Q. Although India's debt-to-GDP ratio is deteriorating, many former central bankers have said that policymakers like RBI should not fear these rating agencies and be shackled by them…

A. Irrespective of rating upgrade or downgrade, so far as India is concerned, we have seen that India has continued to enjoy the trust of foreign investors, both in terms of foreign portfolio investment and foreign direct investment. It is the policies which a country follows, macroeconomic fundamentals and the outlook that foreign investors have on an economy that matters. Today, with the information explosion, thanks to the internet and electronic media, investors abroad, are much better informed about what is actually happening in India, than they were, say, 20 years ago.

I am not saying rating agencies are totally irrelevant. Rating agencies do influence some

foreign investors who follow their own methods of indexation where there is application of ratings for investment. But, by and large, foreign investors in the last several years have exhibited their trust on the Indian economy irrespective of the rating upgrade or downgrade.

Q. Many feel that RBI proposes and bank disposes, as its proactive measures are not translating to action by banks, including that on the moratorium, where RBI said 'all loans' were eligible but banks aren't offering it to NBFCs.

A. We have said two things in the March 27 circular that there will be a moratorium on repayment of instalments falling due during three months. The exact words are

'…lending institutions are permitted to grant a moratorium of three months on payment of all instalments…'. We have also said '…lending institutions shall frame Board approved polices for providing the above-mentioned reliefs…'

What is meant by this is that each bank has to assess its own liquidity position, capital adequacy and its own financials. The banks have to take a considered call taking into account these factors. So far as RBI is concerned, there is sufficient clarity. So far as implementation is concerned, each bank has to take into account these factors and then grant moratorium.

Q. In view of the hit expected from COVID-19, are you comfortable with capital ratios of Indian banks to tackle this? Would you nudge some Indian banks to shore up some capital?

A. So far as the current levels of NPA and current levels of capital adequacy are concerned, Indian banks are healthy and safe. We have announced the temporary freeze on dividend payments by banks and deferment of last tranche of capital conservation buffer.

We have to take a calibrated call. Recently, when we announced the standstill on NPA recognition, we also mandated the banks to maintain 10 per cent additional provisions. That is essentially to protect the bank balance sheets in future.

We are constantly monitoring the sector. Going forward, whatever measures are required, we would mandate that.

Q. How can policymakers help bankers overcome the fear of investigative agencies as that is coming in the way of bankers taking credit decisions?

A. This has been a problem. But, recently the government has taken certain measures and come out with guidelines and the Central Vigilance Commission (CVC) has formed an advisory committee named Advisory Board for Banking and Financial Frauds. It's a five member committee.

Before any matter is referred to the Central Bureau of Investigation (CBI) or any other such agency or even before an investigation begins, the committee will go into it and see whether it's a business failure or a case of malfeasance. If the committee feels there is some wrongdoing, only then will the matter be referred to the investigative agencies.

If it's a case of business failure or a business decision that has gone wrong, and there is no malfeasance then adequate protection has been provided. This problem was there in the past. This mechanism set up by the government will help alleviate the situation a lot.

Q. The RBI's key mandate is financial stability, but recent issues at YES Bank, IL&FS, PMC Bank, Altico Capital and Dewan Housing show chinks in various layers of financial institutions. How does the RBI plan to restore confidence? Is there a review planned?

A. As I have said in the past, we have strengthened our supervisory systems and mechanisms, including a specialised Department of Supervision. I have already listed out the measures elsewhere.

We are doing a much more granular, deep-dive into financial institutions where we see some signs of vulnerability.

This is much deeper than it was done ever before. We have improved and sharpened our supervisory systems and methods. It's a very proactive system.

At the same time, we have mandated additional regulatory guidelines for NBFCs and Urban Co-operative Banks regulated by the RBI.

Q. Is this speeding up the RBI's journey to limiting deposit-taking activity to only banks?

A. There is no such policy thought at the moment.

Q. Based on when a bank is licensed, there are different regulations governing them, such as promoter stake or permission to promote other lending institutions. Any plan to harmonise these regulations?

A. These issues are under examination.

Q. RBI has not had a great time in terms of judicial pronouncements. Are courts moving away from treating RBI as a sector expert? How can RBI restore its place in the eyes of the judiciary?

A. Some judgments have gone against us but under the law, it is the courts that do have the prerogative. But you will agree that in a number of cases, we have approached the courts and got amended orders from the same court or got a more favourable judgment from a higher court.

In the crypto-currency case, while having an issue with the principle of proportionality, the Supreme Court has clearly observed that RBI is not just another regulator. I think that position has been made clear by the Supreme Court itself.

Q. What is the vision behind the new fintech department? Will it take forward the strides made in the payments space or will it go much beyond?

A. With regard to the payments space, India is an innovator and a pioneer. The Unified Payments Interface (UPI) is being internationally commended. The BIS has come up with a paper on what all UPI has achieved. We advised the National Payments Corporation of India (NPCI), and they have set up a subsidiary to internationalise UPI and the RuPay Card. The UPI model has the potential to become a vehicle for cross-border money transfer and remittances.

That is the payments aspect, but the fintech department will push these kind of initiatives. Plus, we have a regulatory sandbox, where we want to see fintech activity to flourish in a calibrated and orderly manner. We want to see that credit flow also happens through new methods using fintech and through fintech companies. This new department will provide the required thrust in that area.

Q. Most commentators believe that we have the best person in the top job at the RBI, given your experience across the bureaucracy and government. How helpful has this been, given there is a fair bit of coordination that you have to do with the government and at the same time, protect the autonomy of the central bank?

A. The RBI's autonomy is never in doubt. All decisions are independently taken by the RBI. We take our own decisions but we do engage with various stakeholders, including the private sector and markets.

Stakeholder consultation is an essential part of the approach at the RBI and the government is much more than a stakeholder. Obviously, we do consult with them and they also consult us. Consultation flows both ways between the government and the RBI.

My experience of working in the government does help me to take a balanced call on all issues, without in any manner compromising the core principles of central banking. Let me also say that even when I was in the North Block, my effort was always to take a balanced call taking into account the requirements on the government and the viewpoint of the RBI.

During my tenure in the finance ministry, it was always my endeavour to take a balanced call between the expectations of the government and the central bank viewpoint. The same approach continues even now.

Q. You have delivered some very strong messages from the RBI in recent times such as 'don't discount the RBI' and 'we shall endure'. In a crisis period, as the monetary authority of the country, what is your message to the financial sector and the common man on the streets?

A. This is a time of trial; an endurance test. We must remain resilient and believe in our capacity to come back stronger.

ARTICLES

*Inflation Decoded Through Power of Words**

Media, as an important channel for dissemination of information, has the potential to influence public sentiment and expectations. This article utilises high frequency unstructured information sourced from the online print media, in the specific context of retail inflation in India. Using Support Vector Machines (SVM) classifier, a widely used technique for sentiment classification, sentiment is extracted from the news and a sentiment index is constructed. Empirical results suggest that the media sentiment index tracks inflation very well. Its directional accuracy, is high and statistically significant. Further, the Granger Causality test results also indicate that the sentiment index has significant predictive ability for retail inflation.

Introduction

Media, as an important channel for dissemination of information, has the potential to influence public sentiment and expectations, which could have important interlinkages with macro-economic outcomes. Using Big Data techniques, the information content in such new data, is being exploited by researchers worldwide to construct appropriate alternative indicators which could help predict macro-economic variables. This article contributes to this growing literature by analysing media sentiment in the specific context of retail inflation in India.

In order to analyse high-frequency and large volume of unstructured information, it is imperative to deploy Big Data tools, such as Machine Learning (ML) and Natural Language Processing (NLP) techniques. Using SVM classifier, a widely used technique for sentiment classification, sentiment is extracted from the news. We utilise unstructured news text sourced from online print media news and reports, in the specific context of retail inflation in India. Availability of such high frequency information (daily news) offers the advantage to construct an index on a near-real time basis.

Against this backdrop, an attempt is made to (i) extract sentiment contained in news on inflation, (ii) aggregate sentiments and construct a sentiment index, and (iii) examine empirically the relationship between sentiment and inflation.

The remainder of this article is structured as follows. Section II briefly reviews the relevant literature. The methodology of sentiment classification and construction of a sentiment index is described in Section III. Empirical results examining the relationship between media sentiment and inflation is presented in Section IV, and Section V concludes.

II. Review of Literature

Newspaper information based indices have been constructed and used in various macroeconomic and financial analysis such as economic policy uncertainty (Baker *et al.*, 2016; Bhagat *et al.*, 2013), financial market movements (Baker *et al.*, 2019; Manela and Moreira, 2017), expected evolution of macro-economic variables (Beckers *et al.*, 2017; Shapiro *et al.*, 2017) and central bank related likely policy response (Lamla and Sturm, 2013; Hendry, 2012; Tobback *et al.*, 2017). We briefly review a few studies specific to the analysis of inflation.

Consumers' reaction to the information provided by media is throughly examined in literature. Common people may not have full understanding of the macroeconomic models, and also they may not track the latest statistics, and instead they may rely on news media for the latest updates on macroeconomic developments to build their forecasts and form their

* This article is prepared by Shweta Kumari and Geetha Giddi, Department of Statistics and Information Management (DSIM), Reserve Bank of India (RBI). The views expressed in this article are those of the authors and do not represent the views of the Bank. The errors, if any, are those of the authors.

expectations. Thus, media as a transmitter of news may have direct impact on inflation expectations of households (Carroll, 2003). Reaction of consumers to the information provided by news media may be influenced by both quantity (coverage of news) and quality (tone of news) (Lamla and Lein, 2008).

Media news is found to be associated with heterogeneity in inflation expectations of consumers, the reporting intensity and news content may play an important role (Lamla and Maag, 2012). Media is found to be a significant influencer in addition to various socio-economic characteristics which act as possible determinants of inflation expectations (Ehrmann *et al.*, 2017). Taking a slightly different route, some studies focus on linkage of news sentiment and business cycle indicators. It is found that use of news sentiment improves the forecasting performance of the model (Beckers *et al.*, 2017; Shapiro *et al.*, 2017).

III. Methodology for Sentiment Classification and the Sentiment Index

Online data sources provide an opportunity to exploit news, which are voluminous and are in unstructured text format, making it challenging for manual reading and processing. In the literature, three broad approaches are used for sentiment analysis using raw news text, *viz.* dictionary based approach, semantic orientation and machine learning techniques.

Dictionary based methods (such as Loughran-McDonald dictionary) for sentiment classification are easy to understand and implement, which have been applied in economics and finance (Iglesias *et al.*, 2017, Nyman *et al.*, 2018). While such methods are useful to extract general sentiment contained in the text, they may not be appropriate for context specific sentiment as they are generic in nature and not well defined for a particular context (such as inflation).

Semantic Orientation (SO) approach tries to address the issue of specific context, as a researcher can provide a list of pre-defined keywords exogenously, as considered appropriate for a given context. Following the user provided keywords, the SO approach aims to measure the degree of positivity or negativity in a given text (Lucca and Trebbi, 2009; Turney, 2002; Tobback *et al.*, 2017). The SO approach is straightforward and easy to adopt; however, it has certain limitations, such as high dependency on keywords and possible bias (Tobback *et al.*, 2017).

The issue of providing appropriate keywords exogenously by the researcher is resolved by using Machine Learning (ML) methods. These methods automatically search for words/ patterns in given text documents which would distinguish one sentiment class from another, and are being used in recent periods (Tobback *et al.*, 2017; Shapiro *et al.*, 2017). SVM, a supervised machine learning technique, is a widely used method in sentiment classification.

III.1 Sentiment Classification - Methodology

We collect news from online print media, focussing on retail inflation in India. Information extraction and sentiment classification methodologies are fairly developed for english language and, therefore, we limit our scope to english news in this article. One may think of exploring and extracting sentiment from news in other Indian languages as well, to check possible variations in sentiment on account of language (if any). However, english being a widely used language in print media across states/ regions in India, we believe that the sentiments extracted from news written in english would be reasonably representative.

As SVM classifier is a supervised model[1], labelled documents with distinct features and input in the form

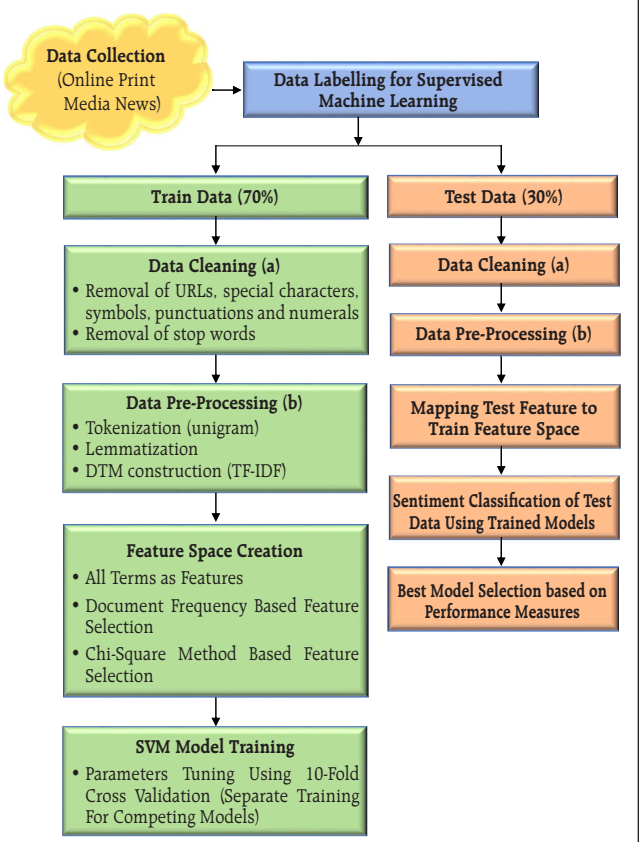
[1] A very brief explanation of SVM is provided in this article, for details one may refer to Chakraborty and Joseph, 2017.

of a document-term matrix (DTM) are pre-requisites for training the model[2]. In the present case, each news item was considered as a unique document and the words mentioned in the news served as terms.

Sentiment was assigned to each news item (increase, decrease or neutral) by thoroughly reading the news text. Some of the news could not be classified into one of the three sentiment classes (*i.e.* there was no sentiment related to inflation), and were, therefore, labelled as "nil". This process resulted in all documents getting labelled in one of the four classes/ categories, *viz.* "increase", "decrease", "neutral" or "nil".

We describe the entire process from data collection to sentiment classification, by way of a flow chart (Chart 1), details are in Annex I.

Chart 1: Flow Chart - Sentiment Classification



[2] We use CARET package in R for SVM model training and testing.

The underlying concept used in SVM is to identify specific features which can be used to distinguish one sentiment class from another, and, therefore, only a few documents having the right mix of features can serve the purpose, by reducing the noise and improving the accuracy of the classification model.

Hence, feature selection methods are often used in sentiment analysis to select specific features which are comparatively more informative and would aid in achieving higher classification accuracy. The basic idea is to rank the features according to certain measures and remove non-informative features. We have explored two measures, *viz.* document frequency based and the Chi-square approach for feature selection. Details are provided in Annex II. Thus, in addition to the basic model with all features, two more variants of the model were trained following the two feature selection methods.

As is the usual practice for machine learning algorithms, to verify the model performance, data were segregated into train and test data and an optimal model from various competing models is selected based on the performance metric namely "accuracy ratio" in test data. Accuracy ratio is a standard evaluation metric/ measure for classification models, which represents the ratio of correctly classified observations to the total observations. A model with higher accuracy ratio (in test data) is considered better among the competing models.

The corpus was segregated into train and test data set in 70:30 ratio, and Table 1 indicates the proportion of the news items in train and test data.

Table 1: Distribution of News Items

Label	Train	Test	Total
Decrease	962	411	1373
Increase	755	324	1079
Neutral	15	7	22
Nil	3744	1605	5349
Total	**5476**	**2347**	**7823**

As could be observed from Table 1, only a few observations are present in "neutral" class, leading to an unbalanced data problem. This is a common scenario in qualitative survey results (categorical data) and also in cases where the target variable is continuously changing (in either direction) and the possibility of the variable remaining in the same state is rather very low.

One approach to handle unbalanced data is to combine the low observation class with another (adjacent) class, one may think of merging "neutral" class with either "increase" or "decrease". In this article, however, this approach was not considered, as construction of a sentiment index (at later stage) requires three classes ("increase", "decrease" and "neutral").

Separate models are trained and tested with different feature space, as described earlier (Table 2). In the second model, even if the number of features are comparatively much lower than the first model, the accuracy improved a lot, highlighting the fact that working with suitable features gives better results. Therefore, the second model was chosen as the optimal model for sentiment classification as its accuracy was higher compared to other models in test data. Using Model 2, sentiment was assigned to all news items, from April 2015 to March 2019.

III.2 Sentiment Index - Methodology

After classifying documents (news items) under four sentiment classes, *viz.* "increase", "decrease", "neutral" and "nil", the next step is to aggregate them and derive an overall sentiment for each period of time. Inflation changes from one period of time to another (little or more) and the possibility of it being same over two consecutive time periods is rather very low. Hence, the possibility of news items with "neutral" sentiment is expected to be rather very low. Yet, to cover all the aspects of sentiment, we count all such news items in the corpus. News items categorised as "nil" are discarded in the computation of the sentiment index as they do not convey any sentiment and their inclusion could result in an inaccurate index.

Table 2: Performance Results of Different Variants of SVM model

Model	Model	No. of features	Train - Accuracy (in per cent)	Test - Accuracy (in per cent)
1	Using all terms as features	2574	99	64
2	Feature selection using document frequency method	186	92	90
3	Feature selection using Chi-square method	178	92	61

Measuring news sentiment is somewhat analogous to qualitative business tendency surveys, which aim at measuring sentiment/ expectations of target survey respondents. The survey responses are generally aggregated using Net Response, which is the difference between "increase" and "decrease" responses (proportions). We construct a Sentiment Index (SI) as defined below:

$$SI_t = \left(\frac{I_t - D_t}{N_t}\right) X\ 100 \quad \ldots (1)$$

where I_t = number of news items with "increase" sentiment in time period t

D_t = number of news items with "decrease" sentiment in time period t

N_t = total number of news items (increase, decrease and neutral)

The SI ranges between (-)100 to (+)100, where a negative value of the index indicates decrease in inflation and a positive value indicates increase in inflation.

Availability of daily news facilitates calculation of the SI on a daily basis, thereby making it a high frequency indicator. However, for the purpose of assessment *vis-à-vis* official monthly inflation numbers, we compute the SI for each month, taking into account all days in a month.

At the same time, we do not want to lose any significant information contained in daily news. So, we try to combine certain days of the month and

re-compute the SI. Inflation being one of the keenly watched macro-economic variable, is frequently reported in media. However, its coverage increases more around the time of the release of official data on Consumer Price Index (CPI) inflation.

Against this backdrop, we combine days of each month into three distinct sets, as defined below:

Set 1 : Day 1 to T-1

Set 2 : Day T to T+2

Set 3 : Rest of the month,

where T = date of issue of the press-release on monthly CPI data, which may vary slightly at times, from month to month

Hence, we calculate four SI values for each month, one for each date Set (Set 1, Set 2 and Set 3) and an overall monthly index including all days of the month. The goal is to explore possible differences in sentiment on inflation, if any, owing to the timing of the arrival of the news. This categorisation of news into sets is advantageous in the following aspects:

(i) Less computation, time-specific sentiment;

(ii) Early availability of sentiment, well before the completion of month; and

(iii) If the sentiment of a particular Set is better linked to inflation, we may not need to consider other days, which may be of advantage.

III.3 Stylised Facts on the Sentiment Index

In this section, the typical characteristics of the sentiment index are described, at aggregate and disaggregated level. Distribution of news items according to the sentiment in each month is presented in Chart 2. One may observe that the proportion of news classified as "neutral" is almost negligible for most of the months (this is in line with expectation, given the fact that the target variable, *i.e.* inflation, is continuously changing). Further, in each month, the majority of news is primarily focused on either "increase" or "decrease" sentiment class, and the instances when both types of sentiments are equally prevalent in media is rare. Such concentration of media sentiment implies clarity in sentiment formation, and results in a high negative or high positive value of the Sentiment Index.

The distribution of news items, with respect to the three date sets is presented in Chart 3.

Chart 2: Sentiment wise Distribution of News

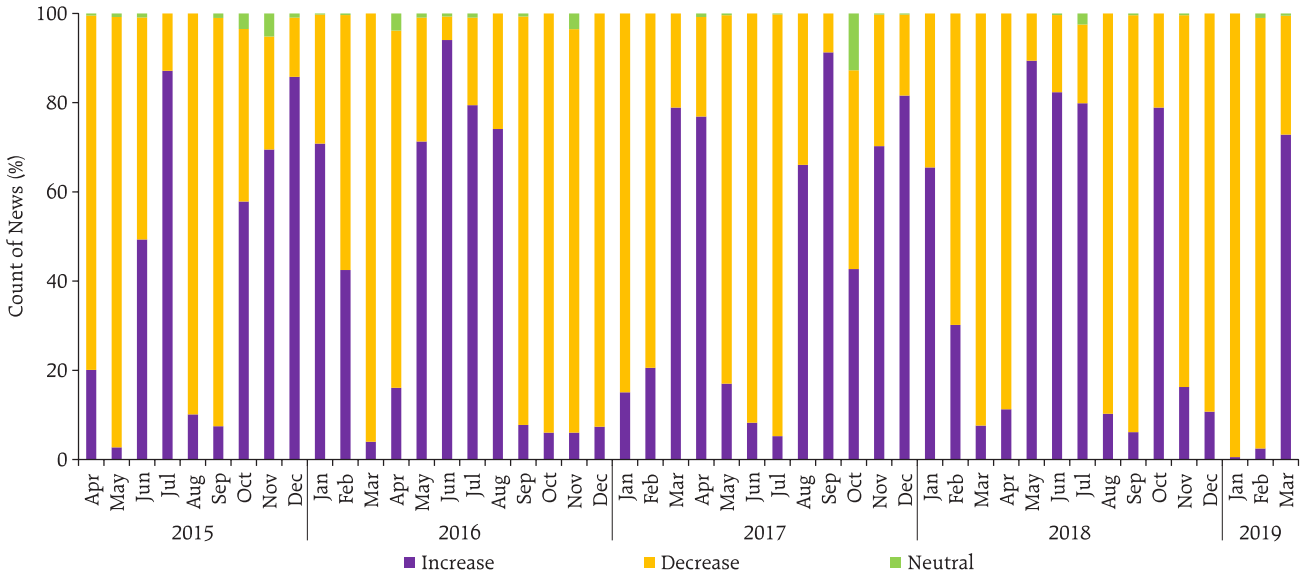
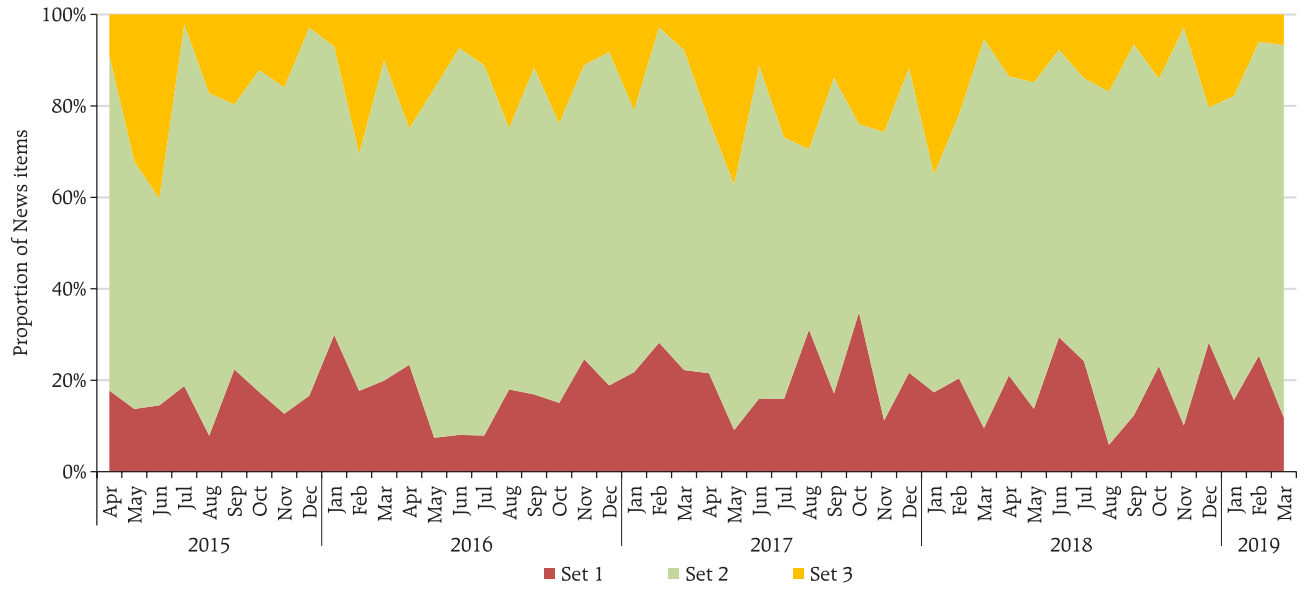


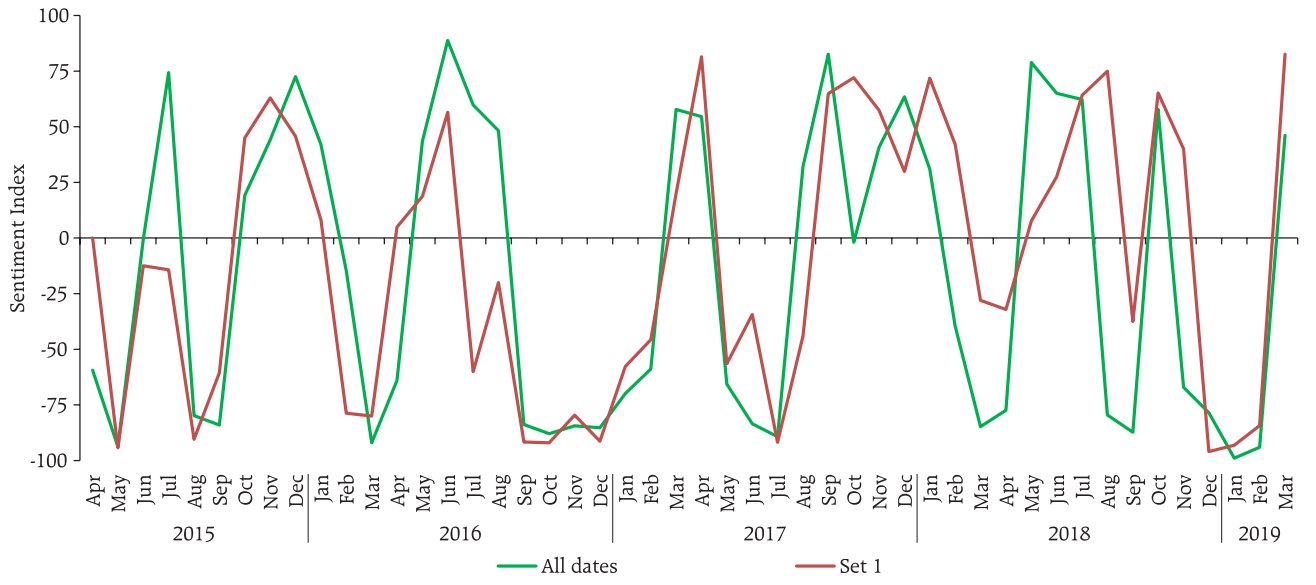
Chart 3: Set wise Distribution of News

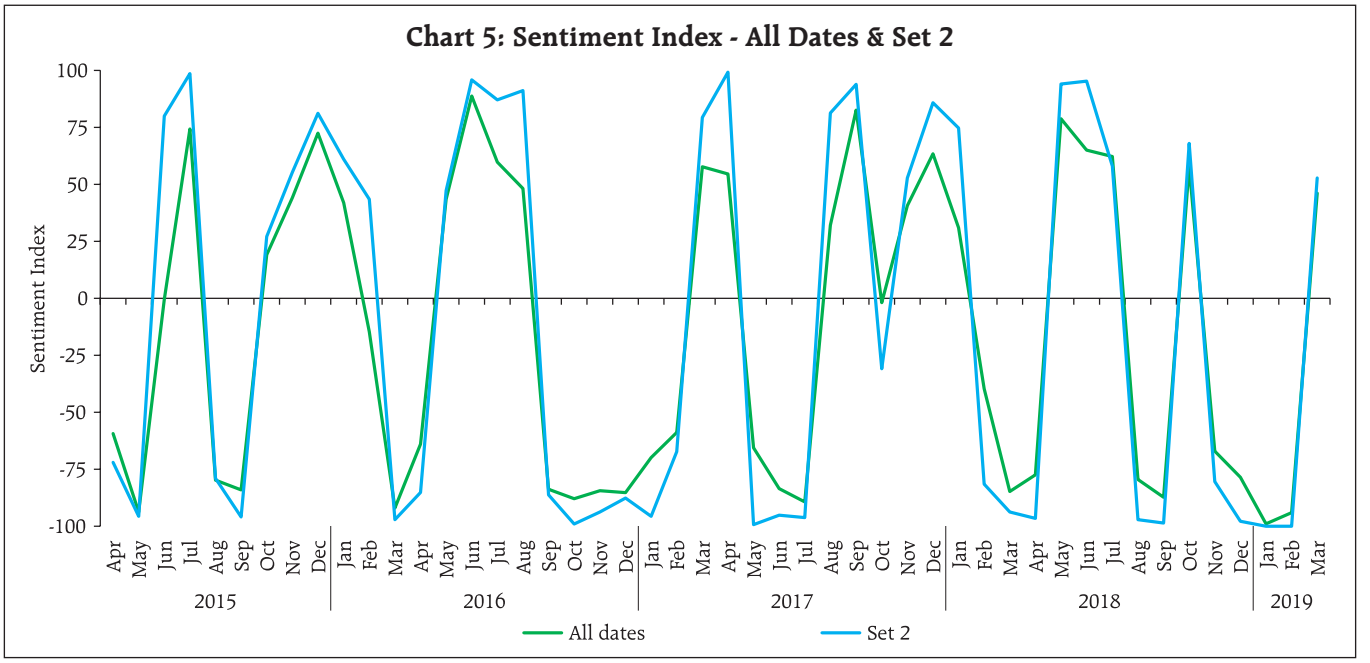


It could be observed that even though Set 2 consists of only 3 days of the month, most of the news items are captured during this period, as compared to other days in a month. It is quite understandable as a lot of deliberations on the current inflation trends and the likely future path of the indicator takes place around the date of the official release of inflation data.

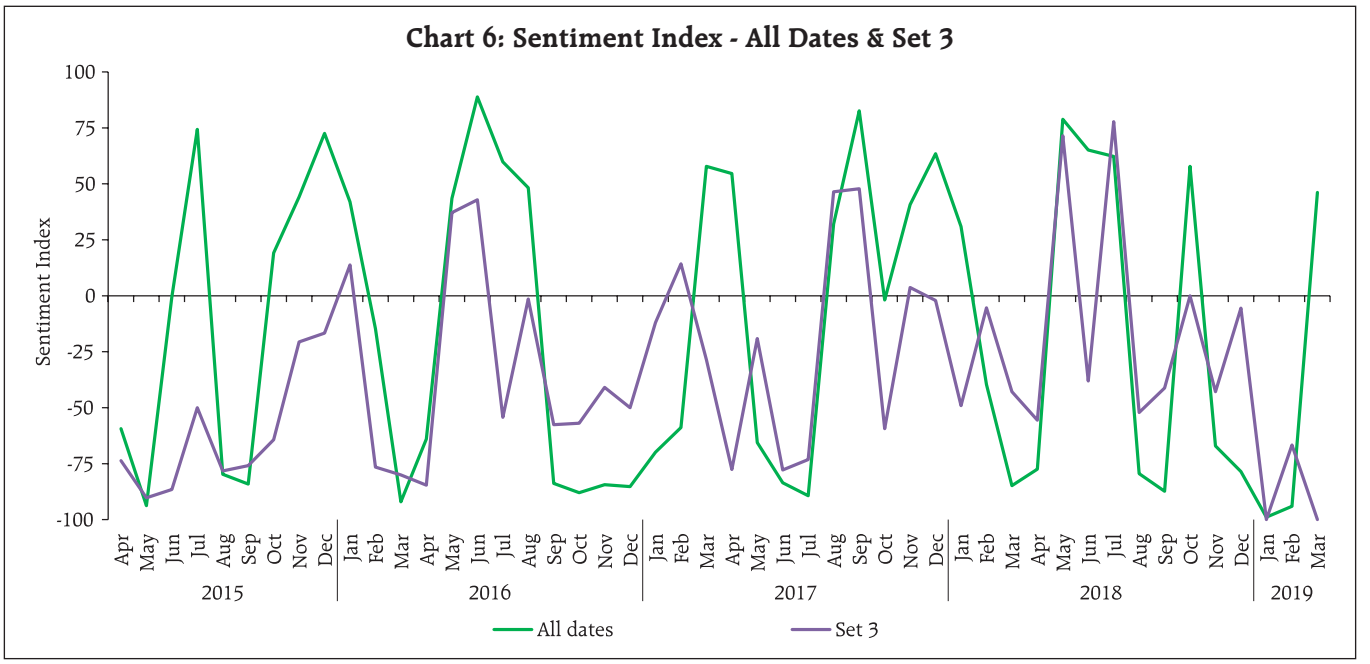
It would be interesting to see whether the coverage of more news during Set 2 has any role to play in the overall sentiment for the month. We plot the overall Sentiment Index against each Set

Chart 4: Sentiment Index - All Dates & Set 1





(Chart 4 to Chart 6). While the index based on Set 2 is better reflective of the index of all dates, the same is not observed for index of Set 1 and Set 3. The coverage of more news in Set 2, combined with possibly better sentiment coverage, might have contributed to a high degree of co-movement between the index of Set 2 and the index of all dates.



IV. Empirical Analysis

The constructed sentiment index is available almost a fortnight before the release of official CPI data. Additionally, the sentiment Index pertaining to Set 2 is available almost a month before the release of data on inflation. As english news has been considered for deriving the sentiment, which may be read in mostly urban parts of the country, the sentiment index may possibly be better related to urban inflation. On the other hand, since newspapers usually report about similar issues at any given point in time, in various languages, the index may as well be linked to rural inflation. So, we consider the combined, urban and rural inflation in this article.

We define inflation as the annual change in logarithmic values of CPI. Since the sentiment index indicates the direction of change in inflation, we define monthly change in inflation as below:

$$\pi_{i,t} = (\log_e CPI_{i,t} - \log_e CPI_{i,t-12}) \times 100 \quad \ldots.(2)$$

$$\Delta\pi_{i,t} = \pi_{i,t} - \pi_{i,t-1} \quad \ldots.(3)$$

where $CPI_{i,t}$ = CPI of class i in period t,
(i = C for Combined, i = U for Urban, i = R for Rural)

Data from April 2015 to March 2019 has been considered in the current analysis. We begin with graphical, correlation and directional analysis before testing for causality.

IV.1 Graphical and Correlation Analysis

A high degree of co-movement is observed between the sentiment index and inflation, indicating that the sentiment index is able to track directional changes in inflation reasonably well (Chart 7 and Chart 8).

Correlation analysis reveals that sentiment is strongly and significantly correlated with inflation. The correlation is somewhat weaker for rural inflation as compared to urban inflation, but statistically significant. Linkage of SI of Set 2 with inflation is stronger, while Set 1 and Set 3 sentiment indices do not appear to be significantly correlated with inflation (Table 3).

Chart 7: Sentiment Index (overall) and Inflation

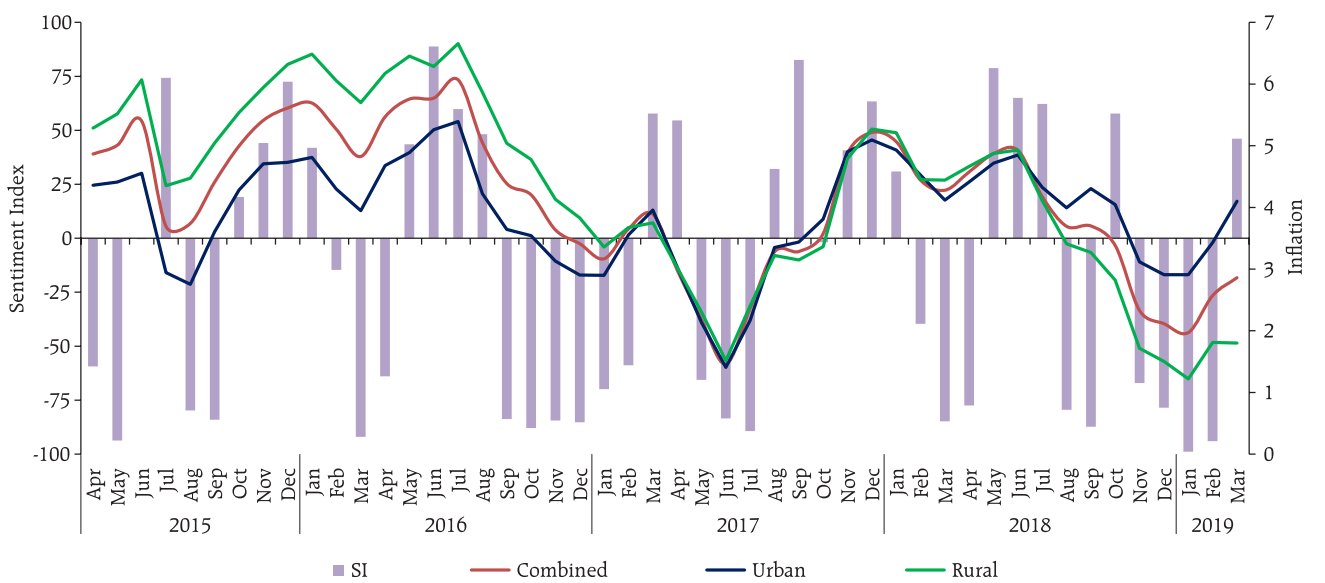
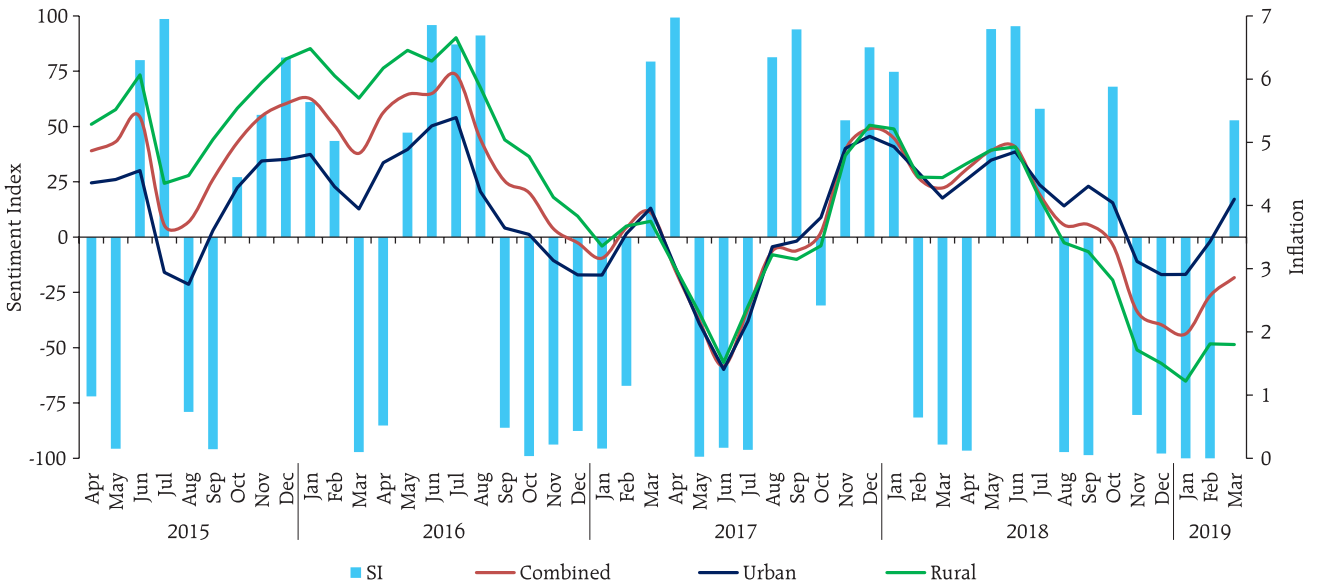


Chart 8: Sentiment Index (Set 2) and Inflation



IV.2 Directional Analysis

Directional analysis is adopted to evaluate the tracking performance of sentiment index in capturing the turning points in inflation. There are several standard directional metrics, we use "accuracy", the simplest and widely used metric in related literature. It is generally defined as the proportion of instances when the predicted class matches with the reference class. In our case, it is defined as the proportion of time periods (months) when the direction indicated by the sentiment index matched with the direction of change in inflation.

A positive SI indicates increase in inflation while a negative SI indicates decrease in inflation. For each month, sign of SI and sign of $\Delta\pi$ (change in inflation) is noted, and number of months is counted for each pair of directional change to create a 2 x 2 contingency table, using which accuracy is computed (Table 4).

A high accuracy score implies that SI is able to capture the directional change in inflation very well.

We also use Fisher's Exact (FE) test to examine the directional accuracy. Using the contingency table (Table 4), the null hypothesis whether the direction

Table 3: Correlation between Inflation and Sentiment

	π_C	π_U	π_R
SI_0	0.43*** (0.00)	0.52*** (0.00)	0.35** (0.02)
SI_1	0.23 (0.11)	0.45*** (0.00)	0.11 (0.48)
SI_2	0.45*** (0.00)	0.51*** (0.00)	0.38** (0.01)
SI_3	0.17 (0.24)	0.26 (0.07)	0.12 (0.42)

Note: p-value in parenthesis.
***, **, * denote significance at 1, 5 and 10 percent level.
SI_0, SI_1, SI_2 and SI_3 indicate sentiment index pertaining to overall (all dates), Set 1, Set 2 and Set 3 respectively. π_C, π_U and π_R indicate combined, urban and rural inflation respectively.

Table 4: Contingency Table

Number of Months		Sign of $\Delta\pi$	
		Increase	Decrease
Sign of Sentiment Index	+ ve (Positive)	A	B
	- ve (Negative)	C	D

$$Accuracy = \frac{(A+D)}{N} * 100$$

where, N = A+B+C+D

given by the sentiment index and direction of change in inflation are independent, is tested. A rejection of the null hypothesis implies that the SI is useful in capturing the direction of change in inflation.

The observed significance level of FE test is defined as below,

$$P = \frac{((A+B)!\ (C+D)!\ (A+C)!\ (B+D)!)}{(A!\ B!\ C!\ D!\ N!)} \quad \ldots (4)$$

As observed earlier, in addition to the overall SI, Set 2 SI appears to be closely associated with inflation, and therefore, we consider overall SI and Set 2 SI for directional analysis.

The results of directional measures, *viz.* Accuracy and FE test are presented in Table 5.

With accuracy of 65 per cent, the sentiment index appears to capture the directional change in inflation reasonably well, both for combined and urban inflation. The accuracy is comparatively lower for rural inflation. The FE test reconfirms the significant association between sentiment and inflation, except rural inflation.

IV.3 Causality Analysis

Presence of causality is important to examine predictive ability. The Granger Causality test is often used in the literature to check the presence of causal relationship between two variables. The underlying hypothesis is that lagged values of a variable explain the variation in another variable and *vice-versa.*

Table 5: Performance Accuracy Measures (direction)

	$\Delta\pi_C$	$\Delta\pi_U$	$\Delta\pi_R$
SI_0			
Accuracy	65%	67%	60%
FE test p-value	0.04	0.02	0.24
SI_2			
Accuracy	65%	67%	60%
FE test p-value	0.05	0.02	0.25

As observed earlier, in addition to the overall SI, Set 2 SI appears to be closely associated with inflation, and therefore, we consider overall SI and Set 2 SI for causality test.

We estimate following pairs of equations for Granger Causality test:

$$\Delta\pi_{i,t} = a + \sum_{k=1}^{n} \alpha_k \Delta\pi_{i,t-k} + \sum_{k=1}^{n} \beta_k SI_{j,t-k} + \varepsilon_t \quad \ldots . (5)$$

$$SI_{j,t} = b + \sum_{k=1}^{n} \gamma_k \Delta\pi_{i,t-k} + \sum_{k=1}^{n} \delta_k SI_{j,t-k} + \eta_t \quad \ldots . (6)$$

Where SI and $\Delta\pi$ are sentiment index and change in inflation as defined in equations (1) and (3) above. Subscript i indicates type of inflation (combined, urban or rural), whereas subscript j denotes type of SI (o and 2 for Overall and Set 2, respectively).

The null hypothesis - of β_k are jointly zero - is tested and its rejection confirms that SI Granger-Causes $\Delta\pi$. Similarly, rejection of the null hypothesis - of γ_k are jointly zero - confirms that $\Delta\pi$ Granger-Causes SI. The lag selection (value of n) is done using Schwarz Information Criteria (SIC).

We test for the presence of unit root in both variables, SI and $\Delta\pi$, before performing the Granger Causality test, in order to ensure that variables are stationary. Augmented Dickey Fuller test (ADF) and Phillips-Perron test (PP) are used, where rejection of null hypothesis would confirm stationarity of the variables. The unit root tests suggest that the sentiment index and change in inflation are stationary (Table 6).

Table 6: Unit Root Tests

Variables	Augmented Dickey-Fuller test	Phillips-Perron test	Integration
SI_0	-3.85 (0.02)	-4.61 (0.00)	I(0)
SI_2	-6.36 (0.00)	-6.50 (0.00)	I(0)
$\Delta\pi_C$	-5.15 (0.00)	-4.88 (0.00)	I(0)
$\Delta\pi_U$	-2.45 (0.35)	-4.42 (0.00)	I(0)
$\Delta\pi_R$	-5.33 (0.00)	-5.24 (0.00)	I(0)

Note: p-value in parenthesis.

Table 7: Granger Causality Test Results

	$\Delta\pi_C$	$\Delta\pi_U$	$\Delta\pi_R$
SI_0			
SI does not Granger Cause Δπ	7.9398*** (0.0072)	11.3400*** (0.0015)	4.7973** (0.0338)
Δπ does not Granger Cause SI	95.5920*** (0.0000)	99.6980*** (0.0000)	76.2310*** (0.0000)
SI_2			
SI does not Granger Cause Δπ	13.4300*** (0.0006)	16.6830*** (0.0001)	9.1198*** (0.0041)
Δπ does not Granger Cause SI	84.5010*** (0.0000)	84.3350*** (0.0000)	70.3110*** (0.0000)

Note: p-value in parenthesis.
***, **, * denote significance at 1, 5 and 10 percent level.

The Granger Causality test indicates presence of bi-directional causality between sentiment and change in inflation (Table 7).

It is evident from the results of Granger Causality test that inflation, besides its own lags, is also influenced by sentiment, and *vice-versa.* Thus the sentiment index has significant explanatory power for predicting inflation.

V. Conclusion

This article uses high frequency unstructured information reported in the media and employs Big Data techniques to construct a sentiment index, with the objective of (a) constructing alternative indicators that could be useful to assess the state of the economy, on a near real-time basis, and (b) improving nowcasting of inflation based on use of media information.

Harnessing the power of Machine Learning and Natural Language Processing techniques, specifically SVM classifier, sentiment has been extracted from unstructured text (news) to construct a sentiment index. Empirical results suggest that the media sentiment index tracks inflation very well. Its directional accuracy, is high and statistically significant. Further, the Granger Causality test results also indicate that the sentiment index has significant predictive ability for inflation.

References

Baker, S. R., Bloom, N. and Davis, S. J. (2016), "Measuring economic policy uncertainty", *The Quarterly Journal of Economics,* 131(4), 1593-1636.

Baker, S. R., Bloom, N., Davis, S. J. and Kost, K. J. (2019), "Policy News and Stock Market Volatility", *National Bureau of Economic Research (NBER) Working Paper* No. 25720

Beckers, B., Kholodilin, K. A. and Ulbricht, D. (2017), "Reading between the Lines: Using Media to Improve German Inflation Forecasts", *German Institute for Economic Research, Discussion Papers* 1665

Bhagat, S., Ghosh, P. and Rangan, S P. (2013), "Economic Policy Uncertainty and Economic Growth in India", *Indian Institutes of Management (IIM) Bangalore Working Paper* No. 407

Carroll, C. D. (2003), "Macroeconomic Expectations of Households and Professional Forecasters", *The Quarterly Journal of Economics,* 118(1)

Chakraborty, C., and Joseph, A. (2017), "Machine learning at central banks", *Bank of England, Working Paper* No. 674

Ehrmann, M., Pfajfar, D. and Santoro, E. (2017), "Consumers' Attitudes and Their Inflation Expectations", *International Journal of Central Banking*

Hendry, S. (2012): "Central Bank Communication or the Media's Interpretation: What Moves Markets?" *Bank of Canada, Working Paper 9*

Iglesias, J., Ortiz, A. and Rodrigo, T. (2017), "How do the Emerging Markets Central Bank talk? A Big Data approach to the Central Bank of Turkey", *BBVA Economic Research Department Working Paper*, 17-24

Lamla, M. J. and Lein, S. M. (2008), "The Role of Media for Consumers' Inflation Expectation Formation", *Swiss Economic Institute (KOF) Working Paper,* No. 201

Lamla, M. J. and Maag, T. (2012), "The Role of Media for Inflation Forecast Disagreement of Households and Professional Forecasters", *Journal of Money, Credit and Banking,* Vol. 44, No. 7

Lamla, M. J. and Sturm, J. E. (2013), "Interest rate expectations in the media and central bank communication," *KOF Working Paper*, No. 334

Lekshmi, O. and Mall, O.P. (2015), "Forward looking surveys for tracking Indian economy: an evaluation", *Bank for International Settlements (BIS) Irving Fisher Committee (IFC) Bulletin* No. 39

Loughran, T. and McDonald, B. (2011), "When is a Liability not a Liability? Textual Analysis, Dictionaries, and 10-Ks", *Journal of Finance,* 66, 35-65.

Lucca, D. O. and Trebbi, F. (2009), "Measuring Central Bank Communication: An Automated Approach with Application to FOMC Statements", *NBER Working Paper* No. 15367

Manela, A. and Moreira, A. (2017), "News implied volatility and disaster concerns" *Journal of Financial Economics,* 123, 137-162

Nyman, R., Kapadia, S., Tuckett, D., Gregory, D., Ormerod, P. and Smith, R. (2018), "News and narratives in financial systems: exploiting big data for systemic risk assessment", *Bank of England Working Paper* No. 704

Picault, M. and Renault, T. (2017), "Words are not all created equal: A new measure of ECB communication", *Journal of International Money and Finance* 79, 136–156.

Shapiro, A. H., Moritz, S., and Wilson, D. (2017), "Measuring News Sentiment", *Federal Reserve Bank of San Francisco, Working Paper* 01

Tobback, E. and Nardelli, S. and Martens, D. (2017), "Between Hawks and Doves: Measuring Central Bank Communication", *European Central Bank (ECB) Working Paper* No. 2085

Turney, P. D. (2002), "Thumbs Up or Thumbs Down? Semantic Orientation Applied to Unsupervised Classification of Reviews", *Proceedings of the 40th Annual Meeting on Association for Computational Linguistics* (pp. 417-424).

Annex I - Sentiment Classification

The raw news collected from online print media is suitably cleaned by removing Uniform Resource Locator (URL), special characters and symbols, punctuation and numerals. Common stop words[1] along with some custom stop words, which do not provide any specific value for sentiment classification, were also removed.

Words are often used with different variations in the text for the purpose of readability depending on the grammar with underlying meaning being the same. In order to create single feature from many similar meaning words, the words are normalised to their root forms. We used lemmatisation[2], a process which converts each word into its lemma, which is an actual language word. Proper care is taken of grammar, vocabulary and dictionary importance of a word while doing the conversion.

The lemmatised news is then tokenised into unigrams (individual term), resulting in a set of terms for each document, for the entire corpus.

Terms are weighted using Term Frequency - Inverse Document Frequency (TF-IDF) weight, as defined below:

$$W_{ij} = TF_{ij} \times \log_e\left(\frac{N}{DF_i}\right)$$

where TF_{ij} = number of times term i occurs in document j

DF_i = number of documents containing term i

N = total number of documents

The TF-IDF weight is a measure used frequently in textual data to evaluate the importance of a term in a given corpus. A term is assigned high weight if it occurs frequently in a document (by TF) but is offset by the number of documents in the corpus that contain the word (by IDF) resulting in balanced weight.

Although SVM can handle non-linear decision boundaries, given the nature of data, we use linear SVM in this article. The linear SVM classification model is a maximum margin classifier and has the following form:

$$f(x_j) = w_0 + w_{1j}\, x_{1j} + w_{2j}\, x_{2j} + \cdots + w_{nj} x_{nj}$$

where w_{ij} = weight of term i in document j

x_{ij} = occurence of term i in document j

w_0 = intercept

The sign of the resulting decision function $f(x_j)$ is the predicted class of a particular document.

The weights of the decision function are a function only of a subset of the training data set, called *support vectors*. Those are the data points that are closest to the decision boundary and lie on the margin. The weights of various terms are obtained while training the model. Since we have a four-class classification problem, six one-*v/s*-one binary sub-classifiers are built, and the final sentiment class is selected based on maximum votes.

The misclassification cost on training data is based on cost parameter C. Large value of C makes the cost of misclassification high, whereas a small value of C can result in low misclassification error. An optimal value of C is required, which can be achieved using parameter tuning. In the present case, an optimal value of C has been obtained using

[1] Stop words are natural language words, which occur frequently in text, however convey little meaning to the text, for example, "the", "a", "and", "this", "are" etc. We used english stop words from SMART ("System for the Mechanical Analysis and Retrieval of Text") which contains a widely used set of stopwords in textual analysis.

[2] R package TEXTSTEM was used for lemmatization.

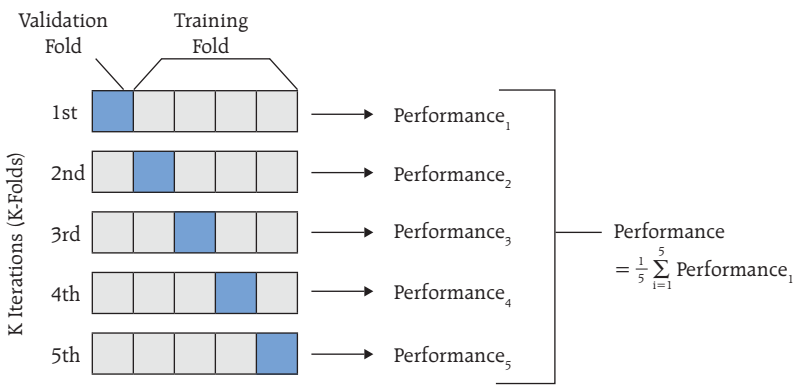
Annex I - Sentiment Classification *(Concld.)*

K-fold cross-validation with K = 10, details are as follows:

K-Fold Cross-Validation

- Randomly split the train dataset into K "folds"
- For each K-fold (validation), build model on K-1 folds of the dataset
- Then, test the model to check the effectiveness for K^{th} fold
- Record the performance (error) of each of the predictions
- Repeat this until each of the K-folds has served as the validation set
- The average of K recorded errors is called the cross-validation error and serves as performance metric for the model

Illustration of K-Fold Cross Validation (K=5)



Source: http://ethen8181.github.io/machine-learning/model_selection/model_selection.html

Annex II - Feature Selection Method

(i) Document Frequency based measure - In text documents, it is a common phenomenon to get terms which are not often used in all the documents. The terms (features) may be ranked based on the respective document frequency (*i.e.* proportion of documents in which the particular term appears). Using a threshold value, some terms which are ranked lower may be excluded. We have used the threshold value as 0.005, implying that all the terms which appear in less than 0.5 per cent of the documents are excluded.

(ii) Chi-Square measure - Chi square statistic χ^2 measures the association between a feature and a class. Using a contingency table containing the count of news as cell frequency as indicated below, χ^2 is computed and p-value is obtained. A significant χ^2 value implies that the related class is more associated with the given feature. Features which are not found to be significantly associated with related class (at 1 per cent level of significance) have been discarded.

	Label			
Feature	**Decrease**	**Increase**	**Neutral**	**Nil**
Present	X11	X12	X13	X14
Absent	X21	X22	X23	X24

*Determinants of Loan Loss Provisions: The Case of Indian Banks**

The study attempts to examine the pro-cyclicality in loan loss provisioning in India. The study finds empirical evidence of pro-cyclicality in loan loss provisioning by Indian banks as well as existence of income smoothing via loan loss provisioning. Further, the study finds that provisioning by public sector banks (PSBs) is more pro-cyclical as compared to private sector banks (PVBs).

Introduction

The global financial crisis (GFC) has drawn attention to the pro-cyclicality in banks' operations. In the aftermath of the GFC, there has been a renewed interest in the accounting practices followed by banks. One such area is the loan loss provisions, the amount which banks set aside to offset future loan losses on outstanding loans.

During an upswing the financial conditions of firms improve with reduced likelihood of loan defaults, whereas downswings have the opposite effect. However, apparently favourable conditions during the boom period can lead to an excessive increase in credit growth and a less critical assessment of creditworthiness of borrowers as loan defaults are low. Hence, loan loss provisions also decline as they are generally backward-looking in nature. This leads to build-up of risk and financial imbalances during the upswing that increases the likelihood of economic contraction in future. On the other hand, during downswing phase, when credit growth is low and loan defaults increase, loan loss provisioning also rises. As provisions have to be carved out of the bank profits, it negatively affects bank capital during these bad times which in turn leads to lower credit growth, thus reinforcing the downturn. Thus a pro-cyclicality is witnessed in loan loss provisioning, however, it is negatively related to growth cycles and credit cycles. Recognising this cyclical pattern, an efficient loan loss provision management entails that banks should build up loan loss reserves during good times, to provide a cushion when the economy is experiencing a cyclical downturn.

In the aftermath of the GFC, the merits of having forward looking provisioning practices have been recognised. Availability of adequate loan loss provisioning helps in buttressing the dent which the mounting losses may make on banks' earnings and capital. During the GFC, the banking system in India remained largely unscathed unlike many banking systems in other advanced and emerging market economies. However, starting with 2011-12, the weakening domestic macroeconomic conditions combined with subdued global growth and associated spill-over risks posed challenges to the banking sector. Further, excessive credit growth during 2006-2011 when bank lending to industrial sector grew at an average rate of over 20 per cent, which was far in excess of the nominal growth of the industrial sector, contributed to considerable increase in asset impairments and dip in the profitability of banks.

There are only a few studies on loan loss provisioning in India. Ghosh (2007) examined the existence of discretionary provisioning practices in India through income smoothing, capital management and signalling during 1997-2005. In a cross-country study focusing on provisioning practices in South Asia, Packer and Zhu (2012) analysed loan loss provisioning for the period 2000-2009. In the recent period, the weakening growth impulses and rising proportion of impaired assets in India and the consequent adverse impact it had on the health of the banking system has made it pertinent to study whether provisioning practices by Indian banks have been pro-cyclical thus exacerbating the business cycles.

* The article is prepared by Rekha Misra, Radheshyam Verma and Samudra Biswas (Research Intern during February-July 2018) of Department of Economic and Policy Research, Reserve Bank of India. The views expressed in the article are those of the authors and do not represent the views of the Reserve Bank.

In this backdrop, the study attempts to fill the gap in the existing literature by keeping in mind the following objectives:

1) To study the existence of cyclicality in the loan loss provisions by Indian banks;

2) Examine the discretionary and non-discretionary determinants of loan loss provisioning post-2005; and

3) To study the differences in loan loss provisioning practices between public and private sector banks in India.

The rest of the paper is organised as follows: Section II presents the conceptual understanding and significance of loan loss provisions. Section III gives a comprehensive account of existing provisioning practices in India. Section IV provides evidence from the literature on the determinants of loan loss provisions. Data and methodology have been discussed in section V. Empirical results are presented in Section VI. Section VII concludes the paper.

II. Conceptual Understanding and Treatment of Loan Loss Provisions

II.1 Loan Loss Provisions: Definitional Aspects

A loan loss provision is an expense that is set aside for defaulted loans. Banks set aside a portion of the expected loan repayments from all loans in their portfolio to cover the losses either completely or partially. In the event of a loss, instead of taking a loss in its cash flows, the bank can use loan loss reserves to cover the loss. Since the bank does not expect all loans to become impaired, there is usually enough in the loan loss reserves to cover the full loss for any one or small number of loans when needed. An increase in the balance of reserves is called loan loss provision. The level of loan loss provisions is determined based on the level expected to protect the safety and soundness of the bank.

II.2. Significance of Loan Loss Provisions

It is generally assumed that unexpected losses by banks would be covered by bank capital, whereas expected losses would be covered by loan loss provisions. In reality, however, the distinction may be blurred. Whereas specific provisions are linked to impaired loans, general provisions are often based on a broad assessment of possible future losses on the entire portfolio. Besides, when loan loss reserves and future margin income are inadequate to cover expected losses due to downturn or some other issues, these losses eat into the capital reserves (Bikker and Metzemakers, 2005).

Prudential reserve management practices result in higher provisioning ahead of a crisis so that banks build up reserves prior to actual losses (Packer and Zhu, 2012). This results in income smoothing as it reduces the negative impact of asset volatility on bank capital. It may also lead to a reduction in pro-cyclicality in banks' lending operations since loan loss provisioning potentially creates a feedback mechanism between the financial and real sectors of the economy.

II.3. Accounting Treatment of Loan Loss Provisions

The loan loss reserves account can be termed a 'contra-asset' account, which reduces the loans by the amount the bank expects to lose when some portions of the loans are not repaid. Bank's managers have to decide how much to add to the loan loss reserves account, and charge this amount against the bank's current earnings. This is recorded as an expense item on the bank's income statement. It has a significant bearing on bank's earnings and regulatory capital. The level of loan loss provisions is determined by the bank managers and thus there is potential for banks to provision more or less than necessary as a way to smoothen their income. Higher provisioning is generally the result of a more cautious approach to building up reserves prior to future losses (Balla *et al,* 2012).

III. Trends in Provisioning in India

Loan loss provisions are largely divided into two parts - specific and general provisioning. The former refers to ex-post provisions made on account of NPAs based on evidence of asset impairment whereas the latter makes up ex-ante provisions on a portfolio of standard assets based on quantitative or qualitative assessment of expected loss. Additionally, Indian banks also make floating provisions and provisions against the diminution in the fair value of restructured assets. The former is usually not made against any identified losses or assigned against any particular loan accounts, therefore, they are also counted as general provisions. General provisions/loan loss reserves can be included in Tier 2 capital up to a limit of 1.25 per cent of risk weighted assets.

III.1. Trends in General Provisioning in India

Over the past decade, India has inched closer to international norms in terms of loan classification standards. In order to strengthen its loan classification standards and counter pro-cyclical trends, the Reserve Bank had introduced the concept of counter-cyclical provisioning in 2004. It was adopted for all sectors with an additional focus on sectors such as residential housing, commercial real estate (CRE), personal loans, capital market and systemically important non-deposit taking non-bank financial companies (NBFCs-ND-SI). From November 2005, the Reserve Bank raised the general provisioning requirement for standard advances from 0.25 to 0.40 per cent which remains the same till date (Table 1). Over the years provisioning requirements and risk weight on loans to select sectors have been rationalised across sectors in order to dampen exuberance in credit supply as a macro-prudential tool (Verma, 2018).

III.2. Trends in Specific Provisioning in India

Between 2005 and 2016, provisioning rates for NPAs have also been rationalised in accordance with the evolving situation (Table 2).

Table 1: Trends in General Provisioning

Year	Agriculture and SME	CRE	Housing Loans	Other Retail	Capital Market	NBFCs-ND-SI	General Provisioning Requirement
2005-2006	0.25	0.25-0.4	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.4	0.25-0.4
2006-2007	0.25	0.4-2	0.4-1	0.4-2	0.4-2	0.4-2	0.4
2007-2008	0.25	2.0	1.0	2	2.0	2.0	0.4
2008-2009	0.25	0.4-2.0	0.4-1.0	0.4-2	0.4-2.0	0.4-2.0	0.4
2009-2010	0.25	0.4-1	0.4	0.4	0.4	0.4	0.4
2010-2011	0.25	1.0	0.4-2	0.4	0.4	0.4	0.4
2011-2012	0.25	1.0	0.4-2	0.4	0.4	0.4	0.4
2012-2013	0.25	1.0	0.4-2	0.4	0.4	0.4	0.4
2013-2014	0.25	0.75*	0.4-2	0.4	0.4	0.4	0.4
2014-2015	0.25	0.75*	0.4-2	0.4	0.4	0.4	0.4
2015-2016	0.25	0.75*	0.4-2	0.4	0.4	0.4	0.4
2016-2017	0.25	0.75*	0.25	0.4	0.4	0.4	0.4

Note: 1. CRE: Commercial Real Estate.
2. *: Pertains to Commercial Real Estate – Residential Housing (CRE-RH). For other CRE, general provisioning requirement remained unchanged.
Source: RBI.

Table 2: Trends in Specific Provisions

Year	Non-Performing Asset Classification	NPA Duration	Provisioning Rates
2005-10	a) Sub-standard:		
	i) Secured		10 per cent
	ii) Unsecured		20 per cent on all loan types
	b) Doubtful	i. <1 year	20 per cent (secured) and 100 per cent (unsecured)
		ii.1-3 years	30 per cent (secured) and 100 per cent (unsecured)
		iii.>3 years	100 per cent on both secured and unsecured
	c) Loss assets		Write-off or 100 per cent (if remains in books)
2010-11	a) Sub-standard:		
	i) Secured		10 per cent
	ii) Unsecured		15 per cent on infrastructure loans and 20 per cent on other loan types
	b) Doubtful	i. <1 year	20 per cent (secured) and 100 per cent (unsecured)
		ii.1-3 years	30 per cent (secured) and 100 per cent (unsecured)
		iii.>3 years	100 per cent on both secured and unsecured
	c) Loss assets		Write-off or 100 per cent (if remains in books)
2011-16	a) Sub-standard:		
	i) Secured		15 per cent
	ii) Unsecured		20 per cent on infrastructure loans and 25 per cent on other loan types
	b) Doubtful	i. <1 year	25 per cent (secured) and 100 per cent (unsecured)
		ii.1-3 years	40 per cent (secured) and 100 per cent (unsecured)
		iii.>3 years	100 per cent on both secured and unsecured
	c) Loss assets		Write-off or 100 per cent (if remains in books)

Notes: 1. Sub-standard assets: Assets which have remained NPA for a period less than or equal to 12 months.
2. Doubtful assets: An asset is classified as doubtful if it has remained in the sub-standard category for a period of 12 months.
3. Loss assets: A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly.

Source: RBI.

IV. Literature Review

Empirical literature on the determinants of loan loss provisions mainly takes into account two components; namely, non-discretionary and discretionary provisioning. The former is more related to the concept of credit risk, where banks make loan loss provisions to cover expected credit losses based on the underlying quality of the loan portfolio. Discretionary component of provisioning mostly arises from the uncertainty and subjectivity in the course of valuing expected losses. Discretionary loan-loss provisions are largely used to smoothen income, manage capital and signal financial strength.

IV.1. Non-discretionary provisioning

Most of the studies found a positive impact of NPAs and total loans on loan loss provisions (Cavallo and Majnoni (2002); Hasan and Wall (2004); Bouvatier and Lepetit (2012); Curcio and Hasan (2015)). Laeven and Majnoni (2003) reported a negative impact of loan growth on provisioning consistent with the fact that with the surge in newer loans there is a consequent decline in provisions. Bikker and Metzemakers (2005) found a positive impact of loan growth on loan loss provision specifically for US banks, reflecting prudent provisioning.

Literature found GDP to be negatively related to loan loss provisions (Laeven and Majnoni, 2003; Ghosh, 2007; Bikker and Metzemakers, 2005; Packer and Zhu, 2012; Fonseca and Gonzalez, 2008; and Malgorzata and Pipien, 2016). Additionally, the stronger the negative coefficient on real GDP growth, the greater the pro-cyclicality of loan loss provisioning.

Real interest rate is mainly used to take into account the monetary policy stance where a high real interest rate would raise the cost of funding for borrowers which makes repayment difficult, leading to further deterioration in asset quality and compelling banks to increase provisions. In line with this, Ghosh (2007) found a positive impact of real interest rate on loan loss provisioning for Indian banks during 1997-2005.

Asset prices capture changes in the ability of borrowers to repay their bank debt and, therefore, can be an important determinant of loan loss provisioning (LLP) through the collateral channel. Financial or real assets are taken as collateral on loans where a fall in asset prices will reduce the value of the collateral leading to greater defaults which in turn compels banks to increase provisioning (Davis and Zhu, 2009). Thus, LLP can amplify the credit cycle through the collateral channel.

IV.2. Discretionary Provisioning

Literature suggests that banks may use discretionary provisioning with three objectives in mind: income smoothing/earnings management, signalling and capital management.

Income smoothing/earnings management *via* LLP is based on the hypothesis that managers save current income for future periods by overstating LLPs in the current period due to information decay. On the other hand, banks smoothen their earnings by drawing down loan loss reserves when actual losses exceed expected losses. It can reduce provisioning procyclicality (Laeven and Majnoni, 2003).

To overcome information asymmetry between bank managers and investors, the former may use signalling tool to communicate inside information regarding future performance to investors through LLP. Bank managers use discretionary component of LLP to signal to investors regarding their private information about future prospects of banks as an unexpected increase in LLP gives a signal of a bank's financial strength (Ghosh, 2007; Bouvatier and Lepetit, 2008).

According to capital management hypothesis, banks can use LLPs to partially meet minimum regulatory capital requirements. In the pre-Basel Accord (1988) period, there was an incentive for bank managers to engage in capital management as banks with low regulatory capital could increase loan loss provisions to meet the regulatory capital criteria. However, in this regime the incentive to manage earnings was lower due to the fact that if a bank reduced loan loss provisions to show higher earnings, it would have an adverse impact on its capital adequacy ratio as loan loss reserves were a part of the numerator. Thus, earnings management could only be achieved at the expense of risk management and *vice versa* (Anandarajan *et al,* 2007). In the Basel I regime and thereafter, general provisions/loan loss reserves could be included in Tier 2 capital only up to a limit of 1.25 per cent of risk weighted assets. With this change, earnings management could now be achieved without much costs (Ahmed *et al.*, 1999).

Kanagaretnam *et al* (1995), Bhat (1996) and Anandarajan *et al* (2007) found that LLPs were used to smoothen income by banks. On the other hand, Beatty *et al* (1995) and Ahmed *et al* (1999) found no relationship between loan loss provisions and income smoothing. Ghosh (2007), Curcio and Hasan (2015) and Packer and Zhu (2012) found evidence of earnings management through loan loss provisions for a sample of Indian banks, Euro-area banks and Asian banks, respectively.

Most of the pre-Basel era studies found greater incentive to manage regulatory capital ratios *via* loan loss provisions given the fact that provisions were included in the primary capital (Moyer, 1990). However, the incentive to manage regulatory capital ratios *via* loan loss provisions was significantly reduced after the Basel Accord of 1988 as LLPs were no longer a part of Tier I ratio and could make only limited contribution to Tier II capital (Ahmed *et al*, 1999; Bikker and Metzemakers, 2002; Anadarajan *et al,* 2006 and Ghosh, 2007).

The signalling *via* loan loss provision hypothesis posits that LLPs can be used as a signal regarding future expected cash flow rather than future credit losses (Curcio and Hasan, 2013). Similarly, Ghosh (2007) and Bouvatier and Lepetit (2008) too found the evidence of signalling for Indian and European banks, respectively. However, others concluded that loan loss provisions were not used for signalling purposes (Ahmed *et al*, 1999 and Anandarajan *et al*, 2006).

Thus, the studies on loan loss provisions provide a mixed evidence regarding the determinants of LLPs. Similarly, the motives behind discretionary component of LLPs also differ across countries and across different time periods.

V Methodology

V.I Model Specification

We model the determinants of loan loss provisioning as a function of bank specific variables, banking industry specific variables and macro-economic variables using a dynamic panel model. It includes various determinants of loan loss provisioning – credit risk considerations, macro-economic environment and discretionary provisioning. This model is suitable for this study given the various criteria suggested by Roodman (2006) such as small T and large N panels; presence of lagged dependent variable; not strictly exogenous independent variables; fixed individual effects; and heteroskedasticity and autocorrelation within but not across individuals.

The general specification to test the hypotheses can be written as:

1) $LLPit = B0 + B1LLPit\text{-}1 + B2\Delta LDit + B3LDit\text{-}1 + B4\Delta NPAit + B5\Delta IncomeSmoothit + B6\Delta Buffer_{it} + B7SIG_{it} + B8GDP_{t-1} + B9InterestRate_{t} + B10\ AssetPrices_{t} + B11AssetPrices_{t} + DummyAQR + DummyBank + e_{ij}$

where,

LLP_{it-1} = *Lagged value of the Ratio of Loan Loss Provision to Average Total Assets of bank.*

ΔLD_{it} = *Change in Loan to Deposit Ratio for bank i at time t.*

LD_{it-1} = *Lagged value of Loan to Deposit Ratio for bank i at time t.*

ΔNPA_{it} = *Change in Gross NPAs to Total Assets for bank i at time t.*

$\Delta IncomeSmooth_{it}$ = *Change in Operating Profit before Loan Loss Provision to Average Total Asset Ratio of bank i at time t.*

$\Delta Buffer_{it}$ = *Change in Minimum Tier I to Total Regulatory Capital Ratio for bank i at time t.*

SIG_{it} = *Price to Book value for bank i at time t.*

GDP_{t-1} = *Lagged Real GDP Growth Rate at Market Prices at time t.*

$InterestRate_{t}$ = *Real Interest Rate at time t.*

$AssetPrices_{t}$ = *log of S&P BSE Realty Index at time t.*

Dummy AQR= 1 for the years 2015-2016 and 2016-2017 and 0 otherwise.

Dummy Public=1 for Public Sector Bank and 0 for Private Sector Bank.

Additionally, two additional specifications have been modelled to have a relative understanding of the provisioning practices of public sector banks (PSBs) and private sector banks (PVBs) by introducing dummy and interaction variables. A more detailed description regarding this is provided in Section VI. The econometric specification is provided below:

2) $\Delta LLP_{it} = B0 + B1\Delta LLP_{it-1} + B2\Delta LD_{it} + B3LD_{it-1} + B4\Delta NPA_{it} + B5\Delta IncomeSmooth_{it} + B6\Delta Bufferit + B7\Delta Signallingit + B8GDPgrowtht\text{-}1 + B9RealInterestRatet + B10\Delta log(AssetPricest) + B11DummyAQR + B12DummyBank + B13DummyBank*\Delta IncomeSmoothit + B14\ DummyBank*\ GDPgrowtht\text{-}1 + e_{ij}$

3) $\Delta LLPit = B0 + B1\Delta LLPit\text{-}1 + B2\Delta LDit + B3LDit\text{-}1 + B4\Delta NPAit + B5\Delta IncomeSmoothit + B6\Delta Bufferit + B7\Delta Signallingit + B8GDPgrowtht\text{-}1 + B9\ RealInterestRatet + B10\Delta log(AssetPricest) + B11DummyAQR + B12DummyBank + B13\ DummyBank*DUMMYHIGHNPL*\Delta IncomeSmoothit + B14DummyBank*DUMMYHIGHNPL*\ GDPgrowtht\text{-}1 + e_{ij}$

Bank specific variables including loan loss provisions and operating profit are scaled by total assets. Total loans are scaled by total deposits.

The study uses Arellano-Bover/Blundell-Bond or system GMM estimator which is a significant improvement over Arellano-Bond as it dramatically improves efficiency of the model by allowing the introduction of more instruments. Given an unbalanced panel data set, we use the forward orthogonal deviation transformation of the original equation as proposed by Arellano and Bover (1995) which in place of subtracting the previous observation from the contemporaneous one (difference transformation), subtracts the average of all future available observations of a variable. Then the dynamic model is applied in the two-step form as they are more asymptotically efficient than one-step estimators. However, using the two-step variant to system GMM can give a downward bias to the coefficient standard errors (Arellano and Bond, 1991); hence, the standard errors of coefficients reported in the paper are finite sample corrected standard error given by Windmeijer (2005). The GMM-style instruments are applied to both lagged dependent variables and other endogenous dependent variables except bank type which is exogenous.

V.II Data Description

For estimation of the model, bank-wise data have been obtained for the period 2004-05 to 2016-17 from *Statistical Tables Relating to Banks in India* published by the Reserve Bank (Table 3). This is the most

Table 3: Data Description and Variables

Nomenclature	Description of Variable	Source	Expected Sign
1. Bank Specific Variables			
1.1 Non-discretionary			
ΔLLPit-1	Lagged first difference of LLP to average Total Asset Ratio	Statistical Tables Related to Banks in India, various issues	+
ΔLD_{it}	First difference of Loan to Deposit Ratio	Statistical Tables Related to Banks in India, various issues	+
ΔLD it-1	Lagged first difference of Loan to Deposit Ratio	Statistical Tables Related to Banks in India, various issues	+
ΔNPA_{it}	First difference of NPA to Asset Ratio	Statistical Tables Related to Banks in India, various issues	+
1.2 Discretionary			
$\Delta IncomeSmooth_{it}$	First difference of Operating Profit before LLP and Taxes to average Total Asset Ratio	Statistical Tables Related to Banks in India, various issues	+
$\Delta Buffer_{It}$	First difference of Actual Regulatory Capital before loan loss provisions (Tier I) to Minimum Required Regulatory Capital Ratio	Statistical Tables Related to Banks in India, various issues	+
$\Delta Signalling_{it}$	First difference of Price to Book value Ratio	Bloomberg	+
2. Macro-variables			
$GDPgrowth_t$	Real GDP growth rate at market prices	Handbook of Statistics on Indian Economy, various issues	-
$RealInterestRate_t$	Real Interest Rate= $(i - \pi)/(1 + \pi)$, where i and π stands for weighted average lending rate and Consumer Price Index.	- Database on Indian Economy - Report of the Expert Committee to Revise and Strengthen the Monetary Policy Framework (2014)	+
$\Delta log(AssetPrices_t)$	Log (S&P BSE REALTY INDEX$_t$) - Log (S&P BSE REALTY INDEX$_{t-1}$)	Bombay Stock Exchange	-
3. Banking Industry Specific			
DummyAQR	AQR=1 in 2015-16 & 2016-17 or 0 otherwise		+
4. Bank Type			
DummyBank	Public Sector Bank =1 or Private Sector Bank=0		-
5.Interaction variables			
DUMMYHIGHNPL	DUMMYHIGHNPL=1, when NPL is greater than median of all banks or 0 otherwise		-

significant period to study since many changes in provisioning practices in India were introduced after 2005. Asset quality review (AQR) of banks was also undertaken during this period which led to significant increase in provisioning requirements. It would be interesting to discern if provisioning practices amplified the business cycle during these episodes. The sample consists of 47 scheduled commercial banks which include 27 public sector banks and 20 private sector banks.

VI. Empirical Analysis

Regression results suggested that lagged value of loan loss provision was a positive and significant determinant of loan loss provisioning. This suggests that loan loss provisioning for Indian banks exhibits a high level of persistence meaning banks adjust their provisions slowly to recognise potential losses against loans (Table 4).

The determinants of non-discretionary provisioning linked to credit risk were found to be positive and significant which is in line with the evidence in literature. Positive coefficient suggests prudent provisioning on the part of Indian banks. Positive and highly significant value of change in NPAs to total assets, which is used to proxy for the specific component of loan loss provisioning, suggests that on average Indian banks increase provisioning in the face of deterioration in asset quality. Further, the positive and highly significant value of change in loan to deposit and lagged loan to deposit, which is used to proxy for the general component of loan loss provisioning, means that on average Indian banks increase provisioning in the face of higher exposure to credit risk. The size of the coefficients of loan to deposit and lagged loan to deposit suggests that provisions do not increase proportionately with increasing exposure to credit risks.

In terms of non-discretionary provisioning linked to the macro-economic environment, lagged real GDP growth was found to be negative and highly

Table 4: Dynamic Panel Data Estimation (System GMM Model) - Dependent Variable: Loan Loss Provisions

Independent Variable	Coefficient
1. Bank Specific Variables	
1.1. Non-discretionary	
Lagged Loan Loss Provision (-1)	.51**** (0.087)
Loan to Deposit	.041*** (.014)
Lagged Loan to Deposit	.014** (.006)
NPA to Total Assets	.47**** (.138)
1.2 Discretionary	
Income Smoothing	.53**** (.58)
Capital Management	.002 (.005)
Signalling	-.002** (.001)
2. Macro-Specific variables	
Growth in Real GDP	-.03*** (.010)
Real Interest Rate	-.023 (.021)
Asset Prices	.003**** (.003)
3. Banking Industry Specific variables	
AQR Dummy	.002 (.005)
4. Bank Type Dummy	-.005* (.003)
AR (1)	**.002**
AR (2)	**.174**
Sargan Test	**.35**
Hansen Test	**.36**

Notes: 1. Figures in parentheses refer to Windmeijer Standard Errors.
2. ****, ***, ** and * indicate significance at 0 .1 %, 1%, 5% and 10% level, respectively.

significant which confirms the existence of strong pro-cyclicality in provisioning by Indian banks. This is in line with Ghosh (2007) which found pro-cyclicality in provisioning by Indian banks indicating that banks do not make sufficient provisions during upswings which further exacerbates the business cycle.

Asset prices were found to have positive impact on provisioning and were also found to be significant

contrary to expected negative relationship. It suggests that the collateral channel does not amplify the credit channel *via* loan loss provisioning. There may be two possible explanations for this. Firstly, the positive result can be driven by the fact that the RBI had started increasing standard-asset provisioning from 2005 onwards for sensitive sectors such as commercial real estate, commercial real estate-residential housing and housing in response to excessive credit growth in these sectors as a macro-prudential measure. Secondly, the variable used to proxy for asset prices is the log of S&P BSE realty index which reflects the equity prices of the real estate firms listed in the BSE. However, the S&P BSE realty index only comprises of a sample of 10 real estate firms which may not be representative of all real estate firms in India. Additionally, stock prices of real estate firms lag behind the extent of increases witnessed in other real estate asset price indicators such as National Housing Bank's Residex or RBI's housing prices index (Singh and Pattanaik, 2012). Hence, due to lack of better proxy for asset prices in India the result cannot be interpreted to be very conclusive.

The impact of real interest rate on provisioning was found to be negative and not significant. Additionally, apart from the weighted average lending rate used in the existing model to measure interest rate, estimates using other measures such as 364-day Treasury-Bill rate and call money rates were also not found to be significant. This is not in line with the expected relationship between the two as high interest rates are expected to lead to more loan defaults. Similar result was reported by Pain (2003) finding that real interest rate calculated using retail price inflation did not have a significant impact on provisioning for UK banks.

Tier I regulatory capital ratio to minimum required total regulatory capital ratio measuring capital management was found to be positive but not significant which indicates that for Indian banks there is no capital management *via* loan loss provisioning. The coefficient on loan loss provision can be significant for banks in two scenarios: 1) the bank is poorly capitalised; therefore, increasing provisions to the extent of 1.25 per cent of risk weighted assets as part of Tier II capital to meet the minimum total regulatory capital requirement, *i.e.*, a negative relationship or, 2) the bank is poorly capitalised but is still less willing to use provisions as it can reduce Tier I capital *via* its impact on earnings, *i.e.*, positive. However, in case of Indian banks, the CRAR was above 10 per cent for mostly all scheduled commercial banks during 2005-2017 which is higher than the minimum regulatory capital of 9 per cent specified by the RBI. Therefore, the non-significant relationship between LLPs and capital management holds ground in the Indian scenario, as the capital management hypothesis is more valid for banks with low regulatory capital (Shrieves and Dahl, 2003).

Operating profit to total assets ratio, a proxy for income smoothing, was found to have positive and significant impact on provisioning, which is in line with the income smoothing hypothesis. This result is also in consonance with Ghosh (2007) and Packer and Zhu (2012). Large coefficient of the variable suggests that income smoothing exerts a strong impact on loan loss provisioning. It may be attributed to the fact that after Basel I, the costs associated with earnings management through regulatory capital buffers on banks have reduced as loan loss reserves are not a very significant part of the numerator of capital adequacy ratio. This in turn might have led banks to aggressively indulge in earnings management through loan loss provisions. Fonseca and Gonzalez (2005) found that income smoothing tends to decrease in countries with high investor protection, high accounting disclosures, restrictions on banking activities and more stringent supervision. According to the Ease of Doing Business Index of the World Bank, India has been generally classified as a country with medium ease of doing business from which it can be reasoned that our finding is consistent with Fonseca and Gonzalez

(2005). Finally, this countercyclical provisioning through income smoothing can be somewhat instrumental in mitigating the impact of business cycles as Indian banks seem to provision for loan losses considerably better when their earnings are higher and vice versa.

The price to book value ratio, a proxy for signalling, was found to be negative and significant. The sign of the variable was not found to be consistent with the signalling hypothesis which assumes a positive coefficient. The finding can be interpreted as increasing LLPs in the case of India is viewed as expense rather than future profitability which is in line with Anandarajan *et al,* 2007. However, these results are in contrast with Ghosh (2007) as our model used a more nuanced measure for signalling, *i.e.*, price to book ratio which was not extensively available during his study period as many Indian banks did not report such data at that time.

Finally, for the bank type dummies, it was found that PVBs on average provision less than PSBs (significant at 10 per cent level). However, the dummy AQR which was used as a banking industry specific variable was not found to be significant but appeared with expected sign of the coefficient.

Provisioning by PSBs *vs* PVBs

We could not conduct separate regressions for PSBs and PVBs because to conduct GMM it requires N should be sufficiently greater than t. In our case, dividing the sample into two parts would significantly reduce the number of banks in turn not meeting the required conditions to conduct dynamic panel regression using GMM. Hence, some interaction terms were included in the model to glean the different provisioning patterns for PSBs and PVBs.

We interacted the bank type dummy variable with the GDP and earnings management variables to find if there were differences in provisioning strategies across PSBs and PVBs. It was found that there was no significant difference across PSBs and PVBs in terms of using provisioning *via* income smoothing and provisioning across the business cycle (Table 5).

Table 5: Dynamic Panel Data Estimation (System GMM Model) - Dependent Variable: Loan Loss Provisions

Independent variable	Coefficient	Coefficient
1. Bank Specific Variables		
1.1. Non-discretionary		
Lagged Loan Loss Provision	.54**** (0.128)	.62**** (0.011)
Loan to Deposit	.03 (.04)	.045*** (.015)
Lagged Loan to Deposit	.013 (.017)	.015* (.008)
NPA to Total Assets	.44**** (.15)	.53**** (.12)
1.2 Discretionary		
Income Smoothing	.05 (.40)	.046**** (.142)
Capital Management	.002 (.008)	.006 (.007)
Signalling	-.002** (.001)	-.002** (.001)
2. Macro variables		
Growth in Real GDP	-.017 (.094)	-.02** (.011)
Real Interest Rate	-.03 (.034)	-.002 (.03)
Asset Prices	.002* (.008)	.002** (.001)
3. Banking industry specific variables		
AQR Dummy	.002 (.001)	.001 (.001)
4.Bank Type Dummy	-.004 (.015)	-.003 (.002)
5. Interaction Terms		
Public * Growth in Real GDP	-.012 (.17)	
Public * Income Smoothing	-.18 (.33)	
Public*HIGHNPL*Growth in Real GDP		-.03** (.018)
Public*HIGHNPL*Income Smoothing		-.26 (.48)
Test Statistics	AR(1) .04 AR(2) .36 Sargan Test .18 Hansen Test .19	AR (1) .00 AR(2) .11 Sargan Test .46 Hansen Test .63

Notes: 1. Figures in parentheses refer to Windmeijer standard errors.
2. ****, ***, ** and * indicate significance at 0 .1 %, 1%, 5% and 10% level, respectively.

Further, in order to check if PSBs or PVBs with low credit quality had adopted different provisioning strategies in terms of provisioning *via* income smoothing and provisioning across the business cycle, an additional dummy variable was added where a value of 1 was assigned for banks whose NPA ratio was greater than the median NPA ratio for all banks and 0 otherwise. This low credit quality dummy was interacted with bank type variables along with GDP and earnings management variables separately. It was found to be positive and significant which suggested that PSBs with high NPA ratio tend to be more procyclical in terms of provisioning across business cycles as compared to PVBs.

VII. Conclusion

The paper attempted to examine the impact of both discretionary and non-discretionary factors on loan loss provisioning by Indian banks during 2005-2017. Most of the non-discretionary factors were found to be quite significant in explaining the changes in provisioning while amongst the discretionary factors only income smoothing *via* loan loss provisioning existed in Indian banks.

Our findings suggest that India's loan loss provisioning is pro-cyclical which can amplify the business cycles. Moreover, it was found that provisioning by PSBs was more pro-cyclical as compared to PVBs. In this context, the implementation of Indian Accounting Standards (Ind-AS), which requires banks to make provisions for expected credit losses from the time a loan is originated rather than awaiting 'trigger events' signalling imminent losses, is expected to help address this issue. Recognising and providing for actual and potential loan losses at an earlier stage in the credit cycle could potentially reduce pro-cyclicality and foster financial stability as Ind-AS requires a dynamic approach to provisioning based on expected credit losses, instead of the current system which is based on days-past-due.

For further research it would be interesting to explore which kind of provisioning practices are more pro-cyclical, *i.e.*, specific or general provisioning as that would give an intuition in terms of the direction that dynamic provisioning should focus on. Additionally, it would be interesting to see whether corporate governance *via* earnings management is a significant determinant of loan loss provisioning.

References

Ahmed, A. S., C. Takeda, and S. Thomas (1999) "Bank Loan Loss Provisions: A Re-examination of Capital Management, Earnings Management and Signalling Effects." *Journal of Accounting and Economics,* Vol 28 (1), pp 1–25.

Arellano, M. and O. Bover (1995), "Another Look at the Instrumental Variable Estimation of Error-Component Models". *Journal of Econometrics,* 68, 29-52.

Arellano, M., and S. Bond (1991): "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations", *Review of Economic Studies,* Vol 58, pp 277–97.

Anandarajan, A., I. Hasan, and C. McCarthy (2007) "Use of Loan Loss Provisions for Capital, Earnings Management and Signalling by Australian Banks." *Accounting and Finance*, Vol 47 (3), pp 357–379.

Balla, E., J. S. Romero and M. Rose (2012): "Loan Loss Reserve Accounting and Bank Behaviour", *Richmond Fed Economic Brief,* issue March, No 12-03.

Bikker, J. A., and P. Metzemakers (2005): "Bank Provisioning Behaviour and Procyclicality", *Journal of International Financial Markets, Institutions and Money,* Vol 15, pp 29-51.

Beaver, W., and E. Engel (1996) "Discretionary Behavior with Respect to Allowances for Loan Losses and the Behavior of Security Prices." *Journal of Accounting & Economics*, Vol 22 (1–3), pp 177–206.

Beatty, A., S. Chamberlain, and J. Magliolo, 1995, "Managing Financial Reports of Commercial Banks: The Influence of Taxes, Regulatory Capital, and Earnings, *Journal of Accounting Research* 33 (2), 231-262.

Bhat, V. (1996) "Banks and Income Smoothing: An Empirical Analysis." *Applied Financial Economics,* Vol 6, pp 505–510.

Bouvatier, V., and L. Lepetit (2008): "Banks Procyclical Behaviour: Does Provisioning Matter?" *Journal of International Financial Markets*, *Institutions and Money*, Vol 18, pp 513-26.

Cavallo, M., and G. Majnoni (2002): "Do Banks Provision for Bad Loans in Good Times? Empirical Evidence and Policy Implications", in R M Levich, G Majnoni and C Reinhart (eds), *Ratings, Rating Agencies, and the Global Financial System*, pp 319–42, Boston, Kluwer Academic Publishers.

Davis, E P and H Zhu (2009): "Commercial Property Prices and Bank Performance", *Quarterly Review of Economics and Finance*, vol 49, pp 1341–59.

Curcio, D., & I. Hasan (2015) Earnings and Capital Management and Signalling: The Use of Loan Loss Provisions by European Banks*, European Journal of Finance*, Vol 21:1, pp 26-50.

Fonseca, A.R., and F. Gonzàlez (2008) "Cross-country Determinants of Bank Income Smoothing by Managing Loan-loss Provisions." *Journal of Banking and Finance,* Vol 32 (2), pp 217–228.

Ghosh, S. (2007) "Loan Loss Provisions, Earnings, Capital Management and Signalling: Evidence from Indian Banks" *Global Economic Review*, Vol 36, pp 121-136.

Hasan, I., and L. Wall (2004) "Determinants of the Loan Loss Allowance: Some Cross-country Comparison." *The Financial Review,* Vol 39 (1), pp 129–152.

Laeven, C., and G. Majnoni (2003): "Loan Loss Provisioning and Economic Slowdowns: Too Much, Too Late?", *Journal of Financial Intermediation*, Vol 12, pp 178–97.

Kanagaretnam, K., G. J. Lobo, and D. H. Yang (2005) "Determinants of Signalling by Banks through Loan Loss Provisions." *Journal of Business Research*, Vol 58 (3), pp 312–320.

Leventis, S., P. E. Dimitropoulos, and A. Anandarajan (2011) "Loan Loss Provisions, Earnings Management and Capital Management under IFRS: The Case of EU Commercial Banks." *Journal of Financial Services Research*, Vol 40 (1–2), pp 103–122.

Liu, C., and S. Ryan (1995) "The Effect of Bank Loan Portfolio Composition on the Market Reaction to and Anticipation of Loan Loss Provisions." *Journal of Accounting Research,* Vol 33 (1), pp 77–94.

Liu, C., S. Ryan, and J. Wahlen (1997) "Differential Valuation Implications of Loan Loss Provisions across Banks and Fiscal Agents." *The Accounting Review*, Vol 72 (1), pp 133–146.

Lobo, G. J., and D. H. Yang (2001) "Bank Managers' Heterogeneous Decisions on Discretionary Loan Loss Provisions." *Review of Quantitative Finance and Accounting*, Vol 16 (3), pp 223–250.

Malgorzata, O. & M. Pipien (2016) "Cross-Country Linkages as Determinants of Procyclicality of Loan Loss Provisions," *The European Journal of Finance*, Vol 22:11, pp. 965-984.

Moyer, S.E., (1990), "Capital Adequacy Ratio Regulations and Accounting Choices in Commercial Banks", *Journal of Accounting and Economics,* vol. 13, pp. 123-154.

Packer, F. and H. Zhu (2012), "Loan Loss Provisioning Practices of Asian Banks," *BIS Working Paper* No. 375, Bank for International Settlements.

Roodman D. (2006), "How to Do xtabond2: An Introduction to 'Difference' and 'System' GMM in Stata." Center for Global Development, Working Papers 103.

Shrieves, R.E. and D. Dahl (2003), "Discretionary Accounting and the Behaviour of Japanese Banks under Financial Duress", *Journal of Banking & Finance*, Volume 27, Issue 7, July 2003, pp. 1219-1243.

Singh, B. and S. Pattanaik (2012), "Monetary Policy and Asset Price Interactions in India: Should Financial Stability Concerns from Asset Prices be Addressed Through Monetary Policy?", *Journal of Economic Integration*, Vol. 27, pp. 167-194.

Verma, Radheshyam (2018), "Effectiveness of Macroprudential Policies in India", in Macroprudential Policies in SEACEN Economies (ed. Jugnu Ansari), SEACEN Centre, Kuala Lumpur, May 2018.

Wall, L., and T.W. Koch, (2000). "Bank Loan-Loss Accounting: A Review of Theoretical and Empirical Evidence", *Federal Reserve Bank of Atlanta Economic Review*, Second Quarter, pp.1-19.

Windmeijer, F. (2005), "A Finite Sample Correction for the Variance of Linear Efficient Two-Step GMM Estimators", *Journal of Econometrics*, 126(1), 25-51.

CURRENT STATISTICS

Contents

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

No. 1: Select Economic Indicators

Item	2019-20	2018-19		2019-20	
		Q2	Q3	Q2	Q3
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	4.9	6.1	5.6	4.8	4.5
1.1.1 Agriculture	3.7	2.5	2.0	3.1	3.5
1.1.2 Industry	1.5	4.7	4.4	0.1	0.1
1.1.3 Services	6.5	7.2	7.3	6.8	6.4
1.1a Final Consumption Expenditure	6.0	9.1	7.0	7.0	6.7
1.1b Gross Fixed Capital Formation	-0.6	11.5	11.4	-4.1	-5.2
	2019-20	**2019**		**2020**	
		Feb.	**Mar.**	**Feb.**	**Mar.**
	1	2	3	4	5
1.2 Index of Industrial Production	-	0.2	2.7	4.5	-
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	7.9	10.0	10.0	9.0	7.9
2.1.2 Credit	6.1	14.7	13.3	6.1	6.1
2.1.2.1 Non-food Credit	6.1	14.6	13.4	6.1	6.1
2.1.3 Investment in Govt. Securities	9.1	-1.2	1.9	10.6	9.1
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	9.4	16.5	14.5	11.3	9.4
2.2.2 Broad Money (M3)	8.9	10.8	10.5	10.2	8.9
3 Ratios (%)					
3.1 Cash Reserve Ratio	3.00	4.00	4.00	4.00	3.00
3.2 Statutory Liquidity Ratio	18.25	19.25	19.25	18.25	18.25
3.3 Cash-Deposit Ratio	4.4	4.7	5.1	4.7	4.4
3.4 Credit-Deposit Ratio	76.4	78.1	77.7	75.8	76.4
3.5 Incremental Credit-Deposit Ratio	60.3	123.5	99.9	44.3	60.3
3.6 Investment-Deposit Ratio	27.2	27.6	26.9	28.3	27.2
3.7 Incremental Investment-Deposit Ratio	30.8	3.6	5.4	51.8	30.8
4 Interest Rates (%)					
4.1 Policy Repo Rate	4.40	6.25	6.25	5.15	4.40
4.2 Reverse Repo Rate	4.00	6.00	6.00	4.90	4.00
4.3 Marginal Standing Facility (MSF) Rate	4.65	6.50	6.50	5.40	4.65
4.4 Bank Rate	4.65	6.50	6.50	5.40	4.65
4.5 Base Rate	8.15/9.40	8.95/9.45	8.95/9.40	8.45/9.40	8.15/9.40
4.6 MCLR (Overnight)	7.40/7.90	8.15/8.55	8.05/8.55	7.50/7.90	7.40/7.90
4.7 Term Deposit Rate >1 Year	5.90/6.40	6.25/7.50	6.25/7.50	6.00/6.40	5.90/6.40
4.8 Savings Deposit Rate	3.00/3.50	3.50/4.00	3.50/4.00	3.25/3.50	3.00/3.50
4.9 Call Money Rate (Weighted Average)	5.05	6.29	6.35	4.96	5.05
4.10 91-Day Treasury Bill (Primary) Yield	4.36	6.40	6.31	5.08	4.36
4.11 182-Day Treasury Bill (Primary) Yield	4.97	6.48	6.35	5.18	4.97
4.12 364-Day Treasury Bill (Primary) Yield	4.94	6.55	6.39	5.16	4.94
4.13 10-Year G-Sec Par Yield (FBIL)	6.71	7.41	7.34	6.65	6.71
5 Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (Rs. Per Foreign Currency)	74.84	71.22	69.17	72.19	74.84
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	82.64	80.75	77.70	79.44	82.64
5.3 Forward Premia of US$ 1-month (%)	8.98	4.13	6.07	3.82	8.98
3-month (%)	5.93	4.38	4.80	3.93	5.93
6-month (%)	5.05	4.16	4.16	3.91	5.05
6 Inflation (%)					
6.1 All India Consumer Price Index	4.77	2.6	2.9	6.6	5.9
6.2 Consumer Price Index for Industrial Workers	7.54	7.0	7.7	6.8	5.5
6.3 Wholesale Price Index	1.74	2.9	3.1	2.3	1.0
6.3.1 Primary Articles	6.92	4.8	4.9	6.7	3.7
6.3.2 Fuel and Power	-1.51	1.7	4.6	3.4	-1.8
6.3.3 Manufactured Products	0.29	2.3	2.2	0.4	0.3
7 Foreign Trade (% Change)					
7.1 Imports	-7.79	-3.4	2.1	2.5	-28.7
7.2 Exports	-4.82	3.2	12.2	2.9	-34.6

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

Reserve Bank of India

No. 2: RBI - Liabilities and Assets *

(₹ Crore)

Item	As on the Last Friday/ Friday						
	2019-20	2019	2020				
		Apr.	Mar. 27	Apr. 3	Apr. 10	Apr. 17	Apr. 24
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	2412993	2154070	2412993	2430710	2460582	2479951	2496611
1.1.2 Notes held in Banking Department	10	13	10	10	10	10	12
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**2413003**	**2154083**	**2413003**	**2430720**	**2460592**	**2479961**	**2496623**
1.2 Assets							
1.2.1 Gold Coin and Bullion	103439	76150	103439	103921	106325	111721	112280
1.2.2 Foreign Securities	2308718	2077023	2308718	2325953	2353425	2367400	2383506
1.2.3 Rupee Coin	846	910	846	845	842	840	837
1.2.4 Government of India Rupee Securities	–	–	–	–	–	–	–
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	1187409	724185	1187409	1193019	1181651	1224177	1222589
2.1.1.1 Central Government	100	100	100	100	100	101	100
2.1.1.2 Market Stabilisation Scheme							
2.1.1.3 State Governments	43	42	43	42	43	42	43
2.1.1.4 Scheduled Commercial Banks	536186	522944	536186	442067	401621	437225	423731
2.1.1.5 Scheduled State Co-operative Banks	7603	4155	7603	5630	4993	5451	5255
2.1.1.6 Non-Scheduled State Co-operative Banks	3445	2619	3445	3115	2866	2610	2673
2.1.1.7 Other Banks	32641	30744	32641	27031	26265	25583	25519
2.1.1.8 Others	605100	160802	605100	714957	745681	753088	765191
2.1.1.9 Financial Institution Outside India	2291	2779	2291	77	82	77	77
2.1.2 Other Liabilities	1350333	1131465	1350333	1405335	1433922	1459540	1462216
2.1/2.2 Total Liabilities or Assets	**2537742**	**1855650**	**2537742**	**2598354**	**2615573**	**2683717**	**2684805**
2.2 Assets							
2.2.1 Notes and Coins	10	13	10	10	10	10	12
2.2.2 Balances held Abroad	1006357	685516	1006357	1037504	1032391	1033996	1019120
2.2.3 Loans and Advances							
2.2.3.1 Central Government	50477	–	50477	40008	110942	135451	111985
2.2.3.2 State Governments	1967	66	1967	2828	362	828	1063
2.2.3.3 Scheduled Commercial Banks	285623	105478	285623	314759	255930	275299	288194
2.2.3.4 Scheduled State Co-op.Banks	–	–	–	–	–	–	–
2.2.3.5 Industrial Dev. Bank of India	–	–	–	–	–	–	–
2.2.3.6 NABARD	–		–	–	–	–	–
2.2.3.7 EXIM Bank	–		–	–	–	–	–
2.2.3.8 Others	10064	6767	10064	10558	5648	5102	4162
2.2.3.9 Financial Institution Outside India	2300	340	2300	7676	7706	7735	7736
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	–	–	–	–	–	–	–
2.2.4.2 Government Treasury Bills	–	–	–	–	–	–	–
2.2.5 Investments	1042951	929535	1042951	1046442	1061009	1076983	1102739
2.2.6 Other Assets	137993	127935	137993	138569	141575	148313	149794
2.2.6.1 Gold	127644	85042	127644	128240	131206	137864	139271

* Data are provisional

No. 3: Liquidity Operations by RBI

(₹ Crore)

Date	Liquidity Adjustment Facility				MSF	Standing Liquidity Facilities	Market Stabilisation Scheme	OMO (Outright)		Long Term Repo Operations	Targeted Long Term Repo Operations	Net Injection (+)/ Absorption (-) (1+3+5+6+9+10+11-2-4-7-8)
	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo				Sale	Purchase			
	1	2	3	4	5	6	7	8	9	10	11	12
Mar. 1, 2020	-	23	-	-	0	–	-	-	-	-	-	-23
Mar. 2, 2020	-	189256	-	-	3733	-	-	-	-	25028	-	-160495
Mar. 3, 2020	-	208992	-	-	7760	-	-	-	-	-	-	-201232
Mar. 4, 2020	-	183652	-	-	4970	-	-	-	-	-	-	-178682
Mar. 5, 2020	-	187876	-	-	2485	-	-	-	-	-	-	-185391
Mar. 6, 2020	-	170067	-	-	475	-	-	-	-	-	-	-169592
Mar. 7, 2020	-	12386	-	-	3267	-	-	-	-	-	-	-9119
Mar. 8, 2020	-	1136	-	-	300	-	-	-	-	-	-	-836
Mar. 9, 2020	-	187217	-	-	290	-57	-	-	-	25021	-	-161963
Mar. 10, 2020	-	13949	-	-	500	–	-	-	-	-	-	-13449
Mar. 11, 2020	-	222122	-	-	20	57	-	-	-	-	-	-222045
Mar. 12, 2020	-	223351	-	-	50	–	-	-	-	-	-	-223301
Mar. 13, 2020	-	262850	0	110845	80	–	-	25	25	-	-	-373615
Mar. 14, 2020	-	382	-	-	900	–	-	-	-	-	-	518
Mar. 15, 2020	-	182	-	-	400	–	-	-	-	-	-	218
Mar. 16, 2020	-	170711	-	-	273	570	-	-	-	-	-	-169868
Mar. 17, 2020	-	254348	-	-	0	-570	-	-	-	-	-	-254918
Mar. 18, 2020	-	295090	-	-	300	570	-	-	-	25012	-	-269208
Mar. 19, 2020	-	292832	-	-	49	–	-	-	1430	-	-	-291353
Mar. 20, 2020	-	233901	-	-	612	–	-	-	-	-	-	-233289
Mar. 21, 2020	-	20969	-	-	7930	–	-	-	-	-	-	-13039
Mar. 22, 2020	-	9140	-	-	0	–	-	-	-	-	-	-9140
Mar. 23, 2020	-	343166	31585	-	445	47	-	–	10225	-	-	-300864
Mar. 24, 2020	-	354218	46160	-	475	-47	-	-	-	-	-	-307630
Mar. 25, 2020	-	34020	-	-	1668	47	-	-	-	-	-	-32305
Mar. 26, 2020	-	401581	11772	-	640	700	-	–	15915	-	-	-372554
Mar. 27, 2020	-	443973	-	118029	1262	1649	-	–	15000	-	25009	-544091
Mar. 28, 2020	-	97780	-	-	0	–	-	-	-	-	-	-97780
Mar. 29, 2020	-	13	-	-	0	–	-	-	-	-	-	-13
Mar. 30, 2020	-	613343	-	-	2769	–	-	-	-	-	-	-610574
Mar. 31, 2020	-	382473	0	-	1950	1138	-	-	400	-	-	-378985

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

i) Operations in onshore / offshore OTC segment

Item	2018-19	2019	2020	
		Mar.	Feb.	Mar.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1–1.2)	-15377	9408	9144	-4054
1.1 Purchase (+)	40804	10306	10604	3984
1.2 Sale (–)	56181	898	1460	8038
2 ₹ equivalent at contract rate (₹ Crores)	-111946	64965	64883	-30974
3 Cumulative (over end-March) (US $ Million)	-15377	-15377	49151	45097
(₹ Crores)	-111945	-111945	342979	312005
4 Outstanding Net Forward Sales (–)/ Purchase (+) at the end of month (US $ Million)	-13774	-13774	-2295	-4939

ii) Operations in currency futures segment

Item	2018-19	2019	2020	
		Mar.	Feb.	Mar.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1–1.2)	0	0	0	0
1.1 Purchase (+)	13935	300	0	2808
1.2 Sale (–)	13935	300	0	2808
2 Outstanding Net Currency Futures Sales (–)/ Purchase (+) at the end of month (US $ Million)	0	0	0	-500

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

Item	As on March 31, 2020		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	0	3300	-3300
2. More than 1 month and upto 3 months	1135	200	935
3. More than 3 months and upto 1 year	9151	1705	7446
4. More than 1 year	0	10020	-10020
Total (1+2+3+4)	**10286**	**15225**	**-4939**

No. 5: RBI's Standing Facilities

(₹ Crore)

Item	As on the Last Reporting Friday							
	2019-20	2019			2020			
		Apr. 26	Nov. 22	Dec. 20	Jan. 31	Feb. 28	Mar. 27	Apr. 24
	1	2	3	4	5	6	7	8
1 MSF	1262	998	3231	3856	2340	4130	1262	45
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit	-	-	-	-	-	-	-	-
2.2 Outstanding	-	-	-	-	-	-	-	-
3 Liquidity Facility for PDs								
3.1 Limit	10000	2800	2800	2800	2800	2800	10000	10000
3.2 Outstanding	4782	2348	1604	1615	1872	1815	4782	4162
4 Others								
4.1 Limit	-	-	-	-	-	-	-	50000
4.2 Outstanding	-	-	-	-	-	-	-	–
5 Total Outstanding (1+2.2+3.2+4.2)	6044	3346	4835	5471	4212	5945	6044	4207

Note :1.Special refinance facility to Others, i.e. to the EXIM Bank, is closed since March 31, 2013.
2.Refinance facility to Others, i.e. to the NABARD/SIDBI/NHB U/S 17(4H) of RBI ACT,1934, since, April 17, 2020.

Money and Banking

No. 6: Money Stock Measures

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2019-20	2019	2020		
		Mar. 29	Feb. 28	Mar. 13	Mar. 27
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	2349715	2055044	2255426	2310276	2341744
1.1 Notes in Circulation	2420964	2113764	2321924	2373668	2412993
1.2 Circulation of Rupee Coin	25572	25098	25572	25572	25572
1.3 Circulation of Small Coins	743	743	743	743	743
1.4 Cash on Hand with Banks	97563	84561	92812	89707	97563
2 Deposit Money of the Public	1776199	1666946	1613427	1612271	1775869
2.1 Demand Deposits with Banks	1737692	1626512	1578869	1576095	1737692
2.2 'Other' Deposits with Reserve Bank	38507	40434	34558	36175	38177
3 M_1 (1 + 2)	**4125915**	**3721991**	**3868854**	**3922546**	**4117614**
4 Post Office Saving Bank Deposits	141786	140599	141786	141786	141786
5 M_2 (3 + 4)	**4267701**	**3862590**	**4010640**	**4064332**	**4259400**
6 Time Deposits with Banks	12674016	11721603	12590123	12606044	12674016
7 M_3 (3 + 6)	**16799930**	**15443594**	**16458977**	**16528590**	**16791629**
8 Total Post Office Deposits	409246	367287	409246	409246	409246
9 M_4 (7 + 8)	**17209176**	**15810881**	**16868223**	**16937836**	**17200875**

No. 7: Sources of Money Stock (M_3)

(₹ Crore)

Sources	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2019-20	2019	2020		
		Mar. 29	Feb. 28	Mar. 13	Mar. 27
	1	2	3	4	5
1 Net Bank Credit to Government	**4906583**	**4432281**	**4983904**	**5038798**	**5008525**
1.1 RBI's net credit to Government (1.1.1–1.1.2)	992192	845742	990539	1023925	1094134
1.1.1 Claims on Government	1047808	921861	990681	1024068	1094277
1.1.1.1 Central Government	1045314	921851	987799	1017914	1092310
1.1.1.2 State Governments	2494	10	2882	6154	1967
1.1.2 Government deposits with RBI	55616	76119	142	143	143
1.1.2.1 Central Government	55573	76076	100	101	100
1.1.2.2 State Governments	43	43	42	42	43
1.2 Other Banks' Credit to Government	3914391	3586539	3993365	4014873	3914391
2 Bank Credit to Commercial Sector	**11038644**	**10382733**	**10759445**	**10796465**	**11037091**
2.1 RBI's credit to commercial sector	13166	15377	3779	3730	11613
2.2 Other banks' credit to commercial sector	11025478	10367356	10755666	10792735	11025478
2.2.1 Bank credit by commercial banks	10370861	9771722	10104866	10140473	10370861
2.2.2 Bank credit by co-operative banks	637776	585931	633477	635916	637776
2.2.3 Investments by commercial and co-operative banks in other securities	16842	9703	17323	16347	16842
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**3798902**	**3068890**	**3681669**	**3761465**	**3754433**
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	3590402	2846636	3473169	3552965	3545933
3.1.1 Gross foreign assets	3590636	2846849	3473388	3553199	3546167
3.1.2 Foreign liabilities	234	213	219	234	234
3.2 Other banks' net foreign exchange assets	208500	222254	208500	208500	208500
4 Government's Currency Liabilities to the Public	**26315**	**25841**	**26315**	**26315**	**26315**
5 Banking Sector's Net Non-monetary Liabilities	**2970514**	**2466151**	**2992356**	**3094453**	**3034735**
5.1 Net non-monetary liabilities of RBI	1378342	1050603	1214879	1309337	1344671
5.2 Net non-monetary liabilities of other banks (residual)	1592172	1415548	1777477	1785116	1690064
M_3 (1+2+3+4–5)	**16799930**	**15443594**	**16458977**	**16528590**	**16791629**

No. 8: Monetary Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2019-20	2019	2020		
		Mar. 29	Feb. 28	Mar. 13	Mar. 27
	1	2	3	4	5
Monetary Aggregates					
NM_1 (1.1 + 1.2.1+1.3)	4125915	3721991	3868854	3922546	4117614
NM_2 (NM_1+ 1.2.2.1)	9745743	8923039	9454268	9509359	9737442
NM_3 (NM_2 + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	16923860	15658129	16589311	16650199	16915559
1 Components					
1.1 Currency with the Public	2349715	2055044	2255426	2310276	2341744
1.2 Aggregate Deposits of Residents	14226198	13184397	13990902	13991236	14226198
1.2.1 Demand Deposits	1737692	1626512	1578869	1576095	1737692
1.2.2 Time Deposits of Residents	12488506	11557885	12412032	12415141	12488506
1.2.2.1 Short-term Time Deposits	5619828	5201048	5585414	5586813	5619828
1.2.2.1.1 Certificates of Deposit (CDs)	169419	284993	181028	170403	169419
1.2.2.2 Long-term Time Deposits	6868678	6356837	6826618	6828327	6868678
1.3 'Other' Deposits with RBI	38507	40434	34558	36175	38177
1.4 Call/Term Funding from Financial Institutions	309439	378254	308425	312512	309439
2 Sources					
2.1 Domestic Credit	16800991	15703141	16620023	16750420	16901380
2.1.1 Net Bank Credit to the Government	4906583	4432281	4983904	5038798	5008525
2.1.1.1 Net RBI credit to the Government	992192	845742	990539	1023925	1094134
2.1.1.2 Credit to the Government by the Banking System	3914391	3586539	3993365	4014873	3914391
2.1.2 Bank Credit to the Commercial Sector	11894408	11270860	11636120	11711622	11892855
2.1.2.1 RBI Credit to the Commercial Sector	13166	15377	3779	3730	11613
2.1.2.2 Credit to the Commercial Sector by the Banking System	11881242	11255483	11632341	11707892	11881242
2.1.2.2.1 Other Investments (Non-SLR Securities)	846284	879849	866695	905177	846284
2.2 Government's Currency Liabilities to the Public	26315	25841	26315	26315	26315
2.3 Net Foreign Exchange Assets of the Banking Sector	3612303	2799775	3438198	3562000	3567834
2.3.1 Net Foreign Exchange Assets of the RBI	3590402	2846636	3473169	3552965	3545933
2.3.2 Net Foreign Currency Assets of the Banking System	21900	-46861	-34971	9035	21900
2.4 Capital Account	2670439	2353808	2545604	2607065	2645611
2.5 Other items (net)	845310	516821	949621	1081470	934359

No. 9: Liquidity Aggregates

(₹ Crore)

Aggregates	2019-20	2019	2020		
		Mar.	Jan.	Feb.	Mar.
	1	2	3	4	5
1 NM_3	**16923860**	**15646602**	**16552195**	**16589311**	**16923860**
2 Postal Deposits	409246	367287	409246	409246	409246
3 L_1 (1 + 2)	**17333106**	**16013889**	**16961441**	**16998557**	**17333106**
4 Liabilities of Financial Institutions	57479	2932	56400	57964	57479
4.1 Term Money Borrowings	7928	2656	2976	2851	7928
4.2 Certificates of Deposit	46249	31	49631	51556	46249
4.3 Term Deposits	3302	245	3793	3557	3302
5 L_2 (3 + 4)	**17390584**	**16016821**	**17017841**	**17056522**	**17390584**
6 Public Deposits with Non-Banking Financial Companies	31905	31905	..	..	31905
7 L_3 (5 + 6)	**17422489**	**16048726**	..	..	**17422489**

Note : Since November 2019, updated data on liabilities of financial institutions have been incorporated in this table , and hence, are not comparable with past data

No. 10: Reserve Bank of India Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2019-20	2019	2020		
		Mar. 29	Feb. 28	Mar. 13	Mar. 27
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	2447279	2139605	2348239	2399983	2439308
1.2 Bankers' Deposits with the RBI	543888	605434	591504	592829	579875
1.2.1 Scheduled Commercial Banks	505131	565707	550033	551020	536186
1.3 'Other' Deposits with the RBI	38507	40434	34558	36175	38177
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	3029674	2785473	2974301	3028987	3057360
2 Sources					
2.1 RBI's Domestic Credit	791299	963599	689696	759044	829783
2.1.1 Net RBI credit to the Government	992192	845742	990539	1023925	1094134
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)	989741	845775	987699	1017813	1092210
2.1.1.1.1 Loans and Advances to the Central Government	–	–	5081	20553	50477
2.1.1.1.2 Investments in Treasury Bills	–	–	–	–	–
2.1.1.1.3 Investments in dated Government Securities	1044468	921116	981839	996505	1040987
2.1.1.1.3.1 Central Government Securities	1044468	921116	981839	996505	1040987
2.1.1.1.4 Rupee Coins	846	735	879	856	846
2.1.1.1.5 Deposits of the Central Government	55573	76076	100	101	100
2.1.1.2 Net RBI credit to State Governments	2451	-33	2840	6112	1924
2.1.2 RBI's Claims on Banks	-214059	102480	-304622	-268611	-275964
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	-214059	102480	-304622	-268611	-275964
2.1.3 RBI's Credit to Commercial Sector	13166	15377	3779	3730	11613
2.1.3.1 Loans and Advances to Primary Dealers	5920	2678	1815	1815	4782
2.1.3.2 Loans and Advances to NABARD	–	–	–	–	–
2.2 Government's Currency Liabilities to the Public	26315	25841	26315	26315	26315
2.3 Net Foreign Exchange Assets of the RBI	3590402	2846636	3473169	3552965	3545933
2.3.1 Gold	230527	166650	221399	218051	231083
2.3.2 Foreign Currency Assets	3359893	2680003	3251787	3334932	3314868
2.4 Capital Account	1165066	977330	1047453	1116305	1140238
2.5 Other Items (net)	213276	73273	167426	193032	204433

No. 11: Reserve Money - Components and Sources

(₹ Crore)

Item	2019-20	Outstanding as on March 31/ last Fridays of the month/ Fridays					
		2019	2020				
		Mar. 29	Feb. 28	Mar. 6	Mar. 13	Mar. 20	Mar. 27
	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)	3029674	2785473	2974301	3022983	3028987	3080356	3057360
1 Components							
1.1 Currency in Circulation	2447279	2139605	2348239	2374163	2399983	2409593	2439308
1.2 Bankers' Deposits with RBI	543888	605434	591504	612053	592829	633339	579875
1.3 'Other' Deposits with RBI	38507	40434	34558	36767	36175	37424	38177
2 Sources							
2.1 Net Reserve Bank Credit to Government	992192	845742	990539	1037411	1023925	996015	1094134
2.2 Reserve Bank Credit to Banks	-214059	102480	-304622	-288260	-268611	-168992	-275964
2.3 Reserve Bank Credit to Commercial Sector	13166	15377	3779	3779	3730	4349	11613
2.4 Net Foreign Exchange Assets of RBI	3590402	2846636	3473169	3587214	3552965	3518215	3545933
2.5 Government's Currency Liabilities to the Public	26315	25841	26315	26315	26315	26315	26315
2.6 Net Non- Monetary Liabilities of RBI	1378342	1050603	1214879	1343476	1309337	1295546	1344671

No. 12: Commercial Bank Survey

(₹ Crore)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2019-20	2019	2020		
		Mar. 29	Feb. 28	Mar. 13	Mar. 27
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	13381983	12410053	13148127	13148246	13381983
1.1.1 Demand Deposits	1617003	1511287	1459926	1457568	1617003
1.1.2 Time Deposits of Residents	11764979	10898766	11688201	11690678	11764979
1.1.2.1 Short-term Time Deposits	5294241	4904445	5259691	5260805	5294241
1.1.2.1.1 Certificates of Deposits (CDs)	169419	284993	181028	170403	169419
1.1.2.2 Long-term Time Deposits	6470739	5994321	6428511	6429873	6470739
1.2 Call/Term Funding from Financial Institutions	309439	378254	308425	312512	309439
2 Sources					
2.1 Domestic Credit	14911495	14032206	14751128	14841943	14911495
2.1.1 Credit to the Government	3684917	3379001	3769059	3787016	3684917
2.1.2 Credit to the Commercial Sector	11226578	10653205	10982069	11054927	11226578
2.1.2.1 Bank Credit	10370861	9771722	10104866	10140473	10370861
2.1.2.1.1 Non-food Credit	10319097	9730112	10039270	10080080	10319097
2.1.2.2 Net Credit to Primary Dealers	9742	8542	10242	10242	9742
2.1.2.3 Investments in Other Approved Securities	8653	2055	9227	7997	8653
2.1.2.4 Other Investments (in non-SLR Securities)	837321	870886	857733	896214	837321
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	21900	-46861	-34971	9035	21900
2.2.1 Foreign Currency Assets	315641	262383	250745	310585	315641
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	185510	163719	178091	190903	185510
2.2.3 Overseas Foreign Currency Borrowings	108231	145526	107625	110647	108231
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	899410	538104	937016	899193	899410
2.3.1 Balances with the RBI	536186	565707	550033	551020	536186
2.3.2 Cash in Hand	87260	74877	82361	79562	87260
2.3.3 Loans and Advances from the RBI	-275964	102480	-304622	-268611	-275964
2.4 Capital Account	1481202	1352307	1473980	1466589	1481202
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	660182	382835	722640	822823	660182
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	495445	398120	476507	565524	495445
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	64018	-47846	72117	58933	64018

No. 13: Scheduled Commercial Banks' Investments

(₹ Crore)

Item	As on March 27, 2020	2019	2020		
		Mar. 29	Feb. 28	Mar. 13	Mar. 27
	1	2	3	4	5
1 SLR Securities	3693570	3381056	3778287	3795013	3693570
2 Commercial Paper	103748	90362	99608	106652	103748
3 Shares issued by					
3.1 PSUs	14106	11535	13690	13827	14106
3.2 Private Corporate Sector	75416	69592	66249	65985	75416
3.3 Others	5734	6379	5766	5753	5734
4 Bonds/Debentures issued by					
4.1 PSUs	86592	134819	123635	125120	86592
4.2 Private Corporate Sector	226550	268783	223145	225216	226550
4.3 Others	190985	170047	191889	189278	190985
5 Instruments issued by					
5.1 Mutual funds	35620	20988	47644	45494	35620
5.2 Financial institutions	97863	98382	85312	85601	97863

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

(₹ Crore)

Item	As on the Last Reporting Friday (in case of March)/ Last Friday							
	All Scheduled Banks				All Scheduled Commercial Banks			
	2019-20	2019	2020		2019-20	2019	2020	
		Mar.	Feb.	Mar.		Mar.	Feb.	Mar.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	219	222	219	219	142	147	142	142
1 Liabilities to the Banking System	**319953**	**276350**	**323676**	**319953**	**314513**	**271426**	**318460**	**314513**
1.1 Demand and Time Deposits from Banks	239622	181651	233085	239622	234348	176828	228063	234348
1.2 Borrowings from Banks	64017	79487	77273	64017	64001	79459	77232	64001
1.3 Other Demand and Time Liabilities	16314	15212	13318	16314	16163	15139	13166	16163
2 Liabilities to Others	**14906386**	**13835976**	**14639011**	**14906386**	**14480607**	**13495672**	**14219106**	**14480607**
2.1 Aggregate Deposits	13976053	12901579	13729250	13976053	13567492	12573772	13326268	13567492
2.1.1 Demand	1653757	1542554	1493578	1653757	1617003	1511287	1459926	1617003
2.1.2 Time	12322296	11359025	12235671	12322296	11950489	11062484	11866342	11950489
2.2 Borrowings	313912	381864	312663	313912	309439	378254	308370	309439
2.3 Other Demand and Time Liabilities	616421	552533	597097	616421	603676	543646	584468	603676
3 Borrowings from Reserve Bank	**286443**	**180688**	**54186**	**286443**	**286443**	**180688**	**54186**	**286443**
3.1 Against Usance Bills /Promissory Notes	–	–	–	–	–	–	–	–
3.2 Others	286443	180688	54186	286443	286443	180688	54186	286443
4 Cash in Hand and Balances with Reserve Bank	608967	657555	650829	608967	592391	640584	632394	592391
4.1 Cash in Hand	89556	76554	84805	89556	87260	74877	82361	87260
4.2 Balances with Reserve Bank	519411	581001	566024	519411	505131	565707	550033	505131
5 Assets with the Banking System	**324429**	**372670**	**321877**	**324429**	**260238**	**327814**	**261959**	**260238**
5.1 Balances with Other Banks	181394	245880	192304	181394	155401	223048	166052	155401
5.1.1 In Current Account	17100	17216	36251	17100	14457	13329	33371	14457
5.1.2 In Other Accounts	164294	228663	156053	164294	140945	209719	132682	140945
5.2 Money at Call and Short Notice	44148	47047	37035	44148	20273	32252	18239	20273
5.3 Advances to Banks	38435	32950	35227	38435	30531	29635	27488	30531
5.4 Other Assets	60453	46793	57311	60453	54032	42879	50180	54032
6 Investment	**3810598**	**3475607**	**3890054**	**3810598**	**3693570**	**3381056**	**3778287**	**3693570**
6.1 Government Securities	3795697	3467845	3874671	3795697	3684917	3379001	3769060	3684917
6.2 Other Approved Securities	14901	7762	15383	14901	8653	2055	9227	8653
7 Bank Credit	**10706638**	**10047125**	**10433819**	**10706638**	**10370861**	**9771722**	**10104866**	**10370861**
7a Food Credit	82172	64636	94717	82172	51763	41610	65596	51763
7.1 Loans, Cash-credits and Overdrafts	10482122	9792287	10213608	10482122	10149509	9521994	9887932	10149509
7.2 Inland Bills-Purchased	26213	27641	26052	26213	25658	26223	25463	25658
7.3 Inland Bills-Discounted	147254	160984	141937	147254	145683	158296	140341	145683
7.4 Foreign Bills-Purchased	20932	24914	21734	20932	20458	24588	21239	20458
7.5 Foreign Bills-Discounted	30118	41299	30489	30118	29554	40622	29892	29554

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

(₹ Crore)

Item	Outstanding as on				Growth (%)	
	Mar. 29, 2019	2019	2020		Financial year so far	Y-o-Y
		Mar. 29	Feb. 28	Mar. 27	2019-20	2020
	1	2	3	4	5	6
1 Gross Bank Credit	**8674893**	**8674893**	**8980095**	**9263134**	**6.8**	**6.8**
1.1 Food Credit	**41474**	**41474**	**65384**	**51590**	**24.4**	**24.4**
1.2 Non-food Credit	**8633419**	**8633419**	**8914711**	**9211544**	**6.7**	**6.7**
1.2.1 Agriculture & Allied Activities	**1111300**	**1111300**	**1155990**	**1157795**	**4.2**	**4.2**
1.2.2 Industry	**2885778**	**2885778**	**2792812**	**2905151**	**0.7**	**0.7**
1.2.2.1 Micro & Small	375505	375505	371333	381825	1.7	1.7
1.2.2.2 Medium	106395	106395	107502	105598	–0.7	-0.7
1.2.2.3 Large	2403878	2403878	2313977	2417728	0.6	0.6
1.2.3 Services	**2415609**	**2415609**	**2433858**	**2594945**	**7.4**	**7.4**
1.2.3.1 Transport Operators	138524	138524	142127	144466	4.3	4.3
1.2.3.2 Computer Software	18535	18535	19205	20051	8.2	8.2
1.2.3.3 Tourism, Hotels & Restaurants	39005	39005	45184	45977	17.9	17.9
1.2.3.4 Shipping	7748	7748	6527	6557	–15.4	-15.4
1.2.3.5 Professional Services	171517	171517	172907	177085	3.2	3.2
1.2.3.6 Trade	528158	528158	538608	552392	4.6	4.6
1.2.3.6.1 Wholesale Trade	250528	250528	254833	263397	5.1	5.1
1.2.3.6.2 Retail Trade	277630	277630	283775	288995	4.1	4.1
1.2.3.7 Commercial Real Estate	202291	202291	228826	229770	13.6	13.6
1.2.3.8 Non-Banking Financial Companies (NBFCs)	641208	641208	703667	807383	25.9	25.9
1.2.3.9 Other Services	668623	668623	576807	611264	–8.6	-8.6
1.2.4 Personal Loans	**2220732**	**2220732**	**2532051**	**2553652**	**15.0**	**15.0**
1.2.4.1 Consumer Durables	6299	6299	6495	9298	47.6	47.6
1.2.4.2 Housing	1160111	1160111	1328991	1338964	15.4	15.4
1.2.4.3 Advances against Fixed Deposits	82873	82873	75469	79496	–4.1	-4.1
1.2.4.4 Advances to Individuals against share & bond	6265	6265	5183	5334	–14.9	-14.9
1.2.4.5 Credit Card Outstanding	88262	88262	110946	108094	22.5	22.5
1.2.4.6 Education	67988	67988	66563	65745	–3.3	-3.3
1.2.4.7 Vehicle Loans	202154	202154	221129	220609	9.1	9.1
1.2.4.8 Other Personal Loans	606780	606780	717275	726112	19.7	19.7
1.2A Priority Sector	**2739021**	**2739021**	**2690428**	**2897461**	**5.8**	**5.8**
1.2A.1 Agriculture & Allied Activities	1104988	1104988	1145063	1146624	3.8	3.8
1.2A.2 Micro & Small Enterprises	1067175	1067175	1095182	1149394	7.7	7.7
1.2A.2.1 Manufacturing	375505	375505	371333	381825	1.7	1.7
1.2A.2.2 Services	691670	691670	723849	767568	11.0	11.0
1.2A.3 Housing	432703	432703	460496	449945	4.0	4.0
1.2A.4 Micro-Credit	24101	24101	36477	38237	58.7	58.7
1.2A.5 Education Loans	53950	53950	52692	51906	–3.8	-3.8
1.2A.6 State-Sponsored Orgs. for SC/ST	397	397	115	388	–2.3	-2.3
1.2A.7 Weaker Sections	662628	662628	701304	731409	10.4	10.4
1.2A.8 Export Credit	15566	15566	14325	16114	3.5	3.5

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

(₹ Crore)

Industry	Outstanding as on				Growth (%)	
	Mar. 29, 2019	2019	2020		Financial year so far	Y-o-Y
		Mar. 29	Feb. 28	Mar. 27	2019-20	2020
	1	2	3	4	5	6
1 Industry	**2885778**	**2885778**	**2792812**	**2905151**	**0.7**	**0.7**
1.1 Mining & Quarrying (incl. Coal)	**41752**	**41752**	**41600**	**43927**	**5.2**	**5.2**
1.2 Food Processing	**157058**	**157058**	**149851**	**154146**	**–1.9**	**–1.9**
1.2.1 Sugar	29705	29705	26623	27382	–7.8	–7.8
1.2.2 Edible Oils & Vanaspati	21343	21343	19461	19240	–9.9	–9.9
1.2.3 Tea	4966	4966	5290	5375	8.2	8.2
1.2.4 Others	101044	101044	98476	102149	1.1	1.1
1.3 Beverage & Tobacco	**14662**	**14662**	**15063**	**16522**	**12.7**	**12.7**
1.4 Textiles	**203549**	**203549**	**188067**	**192424**	**–5.5**	**–5.5**
1.4.1 Cotton Textiles	97726	97726	86276	89283	–8.6	–8.6
1.4.2 Jute Textiles	2119	2119	2117	2116	–0.1	–0.1
1.4.3 Man-Made Textiles	26748	26748	25822	26074	–2.5	–2.5
1.4.4 Other Textiles	76956	76956	73852	74951	–2.6	–2.6
1.5 Leather & Leather Products	**11071**	**11071**	**10720**	**11098**	**0.2**	**0.2**
1.6 Wood & Wood Products	**11968**	**11968**	**12102**	**12233**	**2.2**	**2.2**
1.7 Paper & Paper Products	**30319**	**30319**	**30607**	**30965**	**2.1**	**2.1**
1.8 Petroleum, Coal Products & Nuclear Fuels	**63136**	**63136**	**58679**	**75834**	**20.1**	**20.1**
1.9 Chemicals & Chemical Products	**191484**	**191484**	**184239**	**202949**	**6.0**	**6.0**
1.9.1 Fertiliser	40043	40043	37028	49066	22.5	22.5
1.9.2 Drugs & Pharmaceuticals	50500	50500	50685	53427	5.8	5.8
1.9.3 Petro Chemicals	46717	46717	40188	42233	–9.6	–9.6
1.9.4 Others	54224	54224	56339	58223	7.4	7.4
1.10 Rubber, Plastic & their Products	**45803**	**45803**	**48752**	**50415**	**10.1**	**10.1**
1.11 Glass & Glassware	**9887**	**9887**	**8494**	**8777**	**–11.2**	**–11.2**
1.12 Cement & Cement Products	**55683**	**55683**	**56634**	**58689**	**5.4**	**5.4**
1.13 Basic Metal & Metal Product	**371564**	**371564**	**333597**	**350325**	**–5.7**	**–5.7**
1.13.1 Iron & Steel	282878	282878	250942	262396	–7.2	–7.2
1.13.2 Other Metal & Metal Product	88686	88686	82655	87929	–0.9	–0.9
1.14 All Engineering	**168621**	**168621**	**155428**	**157259**	**–6.7**	**–6.7**
1.14.1 Electronics	37856	37856	32900	30159	–20.3	–20.3
1.14.2 Others	130765	130765	122528	127100	–2.8	–2.8
1.15 Vehicles, Vehicle Parts & Transport Equipment	**79859**	**79859**	**79111**	**82606**	**3.4**	**3.4**
1.16 Gems & Jewellery	**72014**	**72014**	**59147**	**59515**	**–17.4**	**–17.4**
1.17 Construction	**99473**	**99473**	**103972**	**104288**	**4.8**	**4.8**
1.18 Infrastructure	**1055921**	**1055921**	**1018749**	**1053913**	**–0.2**	**–0.2**
1.18.1 Power	568966	568966	538993	559774	–1.6	–1.6
1.18.2 Telecommunications	115585	115585	141171	143760	24.4	24.4
1.18.3 Roads	186852	186852	186148	190676	2.0	2.0
1.18.4 Other Infrastructure	184518	184518	152437	159703	–13.4	–13.4
1.19 Other Industries	**201954**	**201954**	**238000**	**239266**	**18.5**	**18.5**

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

(₹ Crore)

Item	Last Reporting Friday (in case of March)/Last Friday/ Reporting Friday								
	2018-19	2019			2020				
		Feb. 22	Dec. 20	Dec. 27	Jan. 03	Jan. 17	Jan. 31	Feb. 14	Feb. 28
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	32	31	30	30	30	30	30	30	30
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	**62003.4**	**61024.4**	**123291.7**	**123179.7**	**123700.8**	**124215.1**	**122402.4**	**118346.7**	**122653.0**
2 Demand and Time Liabilities									
2.1 Demand Liabilities	**18241.3**	**18201.2**	**24293.2**	**23483.5**	**24516.6**	**23862.0**	**22274.8**	**23179.4**	**23334.6**
2.1.1 Deposits									
2.1.1.1 Inter-Bank	5842.3	4464.7	3973.9	4316.8	4705.0	4426.1	4194.1	4957.5	4664.8
2.1.1.2 Others	9,808.6	10081.4	13224.2	13180.2	13478.7	12911.9	11625.8	11686.6	12146.4
2.1.2 Borrowings from Banks	0.0	464.9	25.0	0.0	0.0	0.0	40.0	0.0	0.0
2.1.3 Other Demand Liabilities	2590.5	3190.2	7070.1	5986.4	6332.8	6524.0	6414.9	6535.3	6523.4
2.2 Time Liabilities	**98531.4**	**93948.9**	**162694.5**	**162534.0**	**164398.3**	**166685.2**	**166326.7**	**157075.1**	**165488.5**
2.2.1 Deposits									
2.2.1.1 Inter-Bank	45655.9	42308.7	51079.3	50938.9	52339.1	53874.8	54063.3	48935.2	53517.1
2.2.1.2 Others	52194.8	50942.9	110067.5	109999.5	110222.0	111303.1	110776.7	106660.1	110506.7
2.2.2 Borrowings from Banks	0.0	44.6	673.0	743.7	958.2	629.9	629.9	629.9	629.9
2.2.3 Other Time Liabilities	680.7	652.7	874.7	851.9	878.9	877.4	856.7	849.9	834.8
3 Borrowing from Reserve Bank	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 Borrowings from a notified bank / Government	50375.4	50683.8	47670.2	48445.0	47721.8	46896.8	47300.4	42517.2	47242.3
4.1 Demand	16826.7	17469.2	14121.3	14382.0	14077.8	13830.6	13669.2	13469.1	12968.7
4.2 Time	33548.7	33214.6	33548.9	34063.0	33644.0	33066.2	33631.2	29048.0	34273.6
5 Cash in Hand and Balances with Reserve Bank	**5721.0**	**4894.4**	**9236.7**	**8941.9**	**9369.9**	**9277.5**	**9090.9**	**8968.3**	**8968.1**
5.1 Cash in Hand	319.1	294.1	770.4	712.5	709.1	727.2	756.6	757.1	828.8
5.2 Balance with Reserve Bank	5401.9	4600.3	8466.3	8229.5	8660.9	8550.3	8334.2	8211.2	8139.3
6 Balances with Other Banks in Current Account	**1543.2**	**1211.9**	**814.3**	**677.7**	**860.5**	**1050.5**	**1030.4**	**969.6**	**1343.6**
7 Investments in Government Securities	**30885.3**	**30730.9**	**49795.3**	**49891.9**	**50062.6**	**49368.8**	**49622.6**	**47722.7**	**47098.3**
8 Money at Call and Short Notice	**16190.2**	**25201.9**	**23287.8**	**25021.1**	**22950.8**	**21965.6**	**19796.7**	**21632.0**	**19828.7**
9 Bank Credit (10.1+11)	**60089.8**	**59026.9**	**98692.2**	**100148.6**	**107241.7**	**101523.2**	**104233.2**	**104602.2**	**106212.2**
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	**60086.2**	**59023.9**	**98691.7**	**100148.1**	**107241.2**	**101522.7**	**104232.7**	**104601.7**	**106211.7**
10.2 Due from Banks	82610.9	81094.3	77825.3	77214.1	70604.2	78326.2	78091.6	78958.8	79645.0
11 Bills Purchased and Discounted	3.7	3.0	0.6	0.6	0.6	0.6	27.2	0.6	1.1

Prices and Production

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

Group/Sub group	2019-20			Rural			Urban			Combined		
	Rural	Urban	Combined	Mar. '19	Feb. '20	Mar. '20	Mar. '19	Feb. '20	Mar. '20	Mar. '19	Feb. '20	Mar. '20
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	**146.3**	**149.6**	**147.5**	**137.3**	**149.8**	**148.2**	**139.6**	**151.7**	**150.1**	**138.1**	**150.5**	**148.9**
1.1 Cereals and products	140.7	143.2	141.4	136.9	144.2	144.4	139.7	146.2	146.5	137.8	144.8	145.1
1.2 Meat and fish	163.3	161.4	162.6	154.1	167.5	166.8	151.1	167.6	167.5	153.0	167.5	167.0
1.3 Egg	142.1	145.7	143.5	138.7	150.9	147.6	142.9	153.1	148.9	140.3	151.8	148.1
1.4 Milk and products	146.5	146.0	146.3	142.5	150.9	151.7	141.9	150.7	151.1	142.3	150.8	151.5
1.5 Oils and fats	127.1	121.8	125.1	124.1	133.7	133.3	118.4	127.4	127.5	122.0	131.4	131.2
1.6 Fruits	144.0	148.8	146.2	136.1	140.7	141.8	139.4	143.1	143.3	137.6	141.8	142.5
1.7 Vegetables	163.5	187.8	171.7	128.2	165.1	152.3	141.2	181.7	167.0	132.6	170.7	157.3
1.8 Pulses and products	133.7	132.0	133.1	122.3	141.8	141.8	120.7	139.6	139.7	121.8	141.1	141.1
1.9 Sugar and confectionery	112.0	113.4	112.5	108.3	113.1	112.6	110.4	114.6	114.4	109.0	113.6	113.2
1.10 Spices	145.6	145.1	145.5	138.9	152.8	154.0	140.7	150.4	151.5	139.5	152.0	153.2
1.11 Non-alcoholic beverages	138.8	130.2	135.2	137.4	140.1	140.1	128.5	131.5	131.9	133.7	136.5	136.7
1.12 Prepared meals, snacks, sweets	157.6	156.7	157.2	156.4	159.2	160.0	153.9	159.0	159.1	155.2	159.1	159.6
2 Pan, tobacco and intoxicants	**166.3**	**169.0**	**167.0**	**162.9**	**169.4**	**170.5**	**165.3**	**172.0**	**173.3**	**163.5**	**170.1**	**171.2**
3 Clothing and footwear	**151.3**	**143.7**	**148.3**	**150.1**	**152.3**	**152.5**	**141.6**	**145.2**	**145.6**	**146.7**	**149.5**	**149.8**
3.1 Clothing	152.0	145.7	149.5	150.8	153.0	153.4	143.5	147.3	147.7	147.9	150.8	151.2
3.2 Footwear	146.9	132.4	140.9	146.1	147.5	147.6	131.2	133.5	133.8	139.9	141.7	141.9
4 Housing	**--**	**152.2**	**152.2**	**--**	**--**	**--**	**149.0**	**154.8**	**155.3**	**149.0**	**154.8**	**155.3**
5 Fuel and light	**148.6**	**131.5**	**142.2**	**146.4**	**152.3**	**153.4**	**128.8**	**138.9**	**141.4**	**139.7**	**147.2**	**148.9**
6 Miscellaneous	**145.6**	**135.9**	**140.9**	**142.4**	**148.4**	**148.6**	**132.8**	**138.4**	**138.7**	**137.7**	**143.6**	**143.8**
6.1 Household goods and services	150.6	138.7	145.0	150.0	151.8	151.5	136.8	140.4	140.8	143.8	146.4	146.4
6.2 Health	153.6	142.1	149.3	150.4	156.2	156.7	139.2	144.4	145.0	146.2	151.7	152.3
6.3 Transport and communication	132.6	122.2	127.1	129.9	136.0	135.8	119.9	125.2	124.6	124.6	130.3	129.9
6.4 Recreation and amusement	148.3	135.9	141.3	143.8	150.4	151.2	133.0	137.7	137.9	137.7	143.2	143.7
6.5 Education	159.8	150.9	154.5	155.5	161.9	161.2	146.7	152.2	152.5	150.3	156.2	156.1
6.6 Personal care and effects	139.2	138.4	138.9	134.0	143.4	145.1	132.5	143.5	145.3	133.4	143.4	145.2
General Index (All Groups)	**147.3**	**145.1**	**146.3**	**141.2**	**150.4**	**149.8**	**139.5**	**147.7**	**147.4**	**140.4**	**149.1**	**148.7**

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

No. 19: Other Consumer Price Indices

Item	Base Year	Linking Factor	2019-20	2019	2020	
				Mar.	Feb.	Mar.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2001	4.63	323	309	328	326
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	980	924	1010	1007
3 Consumer Price Index for Rural Labourers	1986-87	–	986	932	1016	1013

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

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

Item	2018-19	2019	2020	
		Mar.	Feb.	Mar.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	31193	32036	41195	42285
2 Silver (₹ per kilogram)	38404	38044	46567	41382

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	2019-20	2019	2020		
			Mar.	Jan.	Feb. (P)	Mar. (P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**121.9**	**119.9**	**123.4**	**122.2**	**121.1**
1.1 PRIMARY ARTICLES	**22.618**	**143.5**	**134.5**	**147.2**	**143.1**	**139.5**
1.1.1 FOOD ARTICLES	**15.256**	**155.8**	**144.5**	**160.5**	**154.9**	**151.6**
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	159.6	153.4	165.0	163.4	159.8
1.1.1.2 Fruits & Vegetables	3.475	174.9	141.8	180.9	158.2	150.7
1.1.1.3 Milk	4.440	146.6	143.2	149.0	149.3	150.9
1.1.1.4 Eggs,Meat & Fish	2.402	147.0	140.9	153.1	153.7	146.8
1.1.1.5 Condiments & Spices	0.529	144.0	125.7	156.9	150.0	149.4
1.1.1.6 Other Food Articles	0.948	143.9	147.7	143.5	142.7	141.5
1.1.2 NON-FOOD ARTICLES	**4.119**	**128.8**	**123.7**	**132.1**	**131.6**	**126.1**
1.1.2.1 Fibres	0.839	128.3	127.6	124.1	124.4	124.0
1.1.2.2 Oil Seeds	1.115	151.4	145.5	157.1	153.7	149.9
1.1.2.3 Other non-food Articles	1.960	104.8	102.3	105.8	105.1	105.1
1.1.2.4 Floriculture	0.204	239.7	194.9	280.7	294.6	206.0
1.1.3 MINERALS	**0.833**	**153.4**	**138.0**	**153.8**	**147.6**	**153.8**
1.1.3.1 Metallic Minerals	0.648	146.3	124.9	144.4	137.5	144.4
1.1.3.2 Other Minerals	0.185	178.3	183.7	186.6	182.6	186.6
1.1.4 CRUDE PETROLEUM & NATURAL GAS	**2.410**	**87.2**	**88.2**	**86.9**	**87.0**	**81.3**
1.2 FUEL & POWER	**13.152**	**102.3**	**102.5**	**104.7**	**103.9**	**100.7**
1.2.1 COAL	**2.138**	**125.3**	**123.6**	**126.5**	**126.5**	**126.5**
1.2.1.1 Coking Coal	0.647	138.1	133.9	141.9	141.9	141.9
1.2.1.2 Non-Coking Coal	1.401	119.0	119.0	119.0	119.0	119.0
1.2.1.3 Lignite	0.090	129.1	121.2	131.1	131.1	131.1
1.2.2 MINERAL OILS	**7.950**	**92.3**	**95.0**	**93.8**	**92.4**	**87.2**
1.2.3 ELECTRICITY	**3.064**	**112.2**	**107.3**	**117.9**	**117.9**	**117.9**
1.3 MANUFACTURED PRODUCTS	**64.231**	**118.3**	**118.3**	**118.8**	**118.7**	**118.7**
1.3.1 MANUFACTURE OF FOOD PRODUCTS	**9.122**	**133.9**	**128.4**	**138.3**	**136.9**	**136.9**
1.3.1.1 Processing and Preserving of meat	0.134	137.5	134.2	135.8	136.7	136.6
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	136.1	131.2	134.3	135.7	137.2
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	114.3	111.2	114.6	114.9	114.5
1.3.1.4 Vegetable and Animal oils and Fats	2.643	119.4	113.7	131.6	129.1	128.4
1.3.1.5 Dairy products	1.165	145.0	134.5	151.4	151.2	151.9
1.3.1.6 Grain mill products	2.010	146.3	144.3	147.1	146.3	146.6
1.3.1.7 Starches and Starch products	0.110	135.5	131.7	136.1	133.4	132.5
1.3.1.8 Bakery products	0.215	133.5	131.2	135.7	136.3	136.2
1.3.1.9 Sugar, Molasses & honey	1.163	118.3	111.9	120.2	119.1	118.9
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	127.2	126.9	125.7	125.9	126.4
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	132.7	135.1	131.7	130.5	131.3
1.3.1.12 Tea & Coffee products	0.371	139.5	131.2	130.1	126.1	127.5
1.3.1.13 Processed condiments & salt	0.163	132.2	125.8	135.8	137.5	140.6
1.3.1.14 Processed ready to eat food	0.024	128.6	129.4	129.9	129.9	129.4
1.3.1.15 Health supplements	0.225	159.8	156.6	157.2	155.9	156.7
1.3.1.16 Prepared animal feeds	0.356	173.7	161.5	174.9	170.0	167.2
1.3.2 MANUFACTURE OF BEVERAGES	**0.909**	**123.6**	**122.0**	**124.1**	**124.1**	**124.1**
1.3.2.1 Wines & spirits	0.408	117.8	115.1	118.3	119.2	119.1
1.3.2.2 Malt liquors and Malt	0.225	125.7	122.1	126.3	126.6	126.7
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	130.5	132.1	130.8	129.1	129.3
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	**0.514**	**153.4**	**153.8**	**152.0**	**154.2**	**154.8**
1.3.3.1 Tobacco products	0.514	153.4	153.8	152.0	154.2	154.8

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2019-20	2019	2020		
			Mar.	Jan.	Feb. (P)	Mar. (P)
1.3.4 MANUFACTURE OF TEXTILES	**4.881**	**117.7**	**118.6**	**116.4**	**116.7**	**116.6**
1.3.4.1 Preparation and Spinning of textile fibres	2.582	107.9	110.4	105.5	105.7	105.6
1.3.4.2 Weaving & Finishing of textiles	1.509	130.1	129.6	129.8	130.5	130.7
1.3.4.3 Knitted and Crocheted fabrics	0.193	114.5	110.6	114.9	113.9	112.9
1.3.4.4 Made-up textile articles, Except apparel	0.299	134.6	134.8	133.4	133.6	133.5
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	143.0	135.5	147.2	146.0	146.0
1.3.4.6 Other textiles	0.201	116.8	116.2	116.1	116.7	117.2
1.3.5 MANUFACTURE OF WEARING APPAREL	**0.814**	**138.3**	**138.3**	**137.8**	**137.8**	**138.0**
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	139.1	138.9	138.6	138.1	138.9
1.3.5.2 Knitted and Crocheted apparel	0.221	135.9	136.7	135.7	136.9	135.7
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	**0.535**	**118.6**	**120.6**	**117.4**	**117.8**	**117.9**
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	105.4	106.7	102.4	102.8	103.5
1.3.6.2 Luggage, HandbAgs, Saddlery and Harness	0.075	136.3	133.4	136.1	137.6	137.4
1.3.6.3 Footwear	0.318	120.4	123.8	119.8	119.9	119.7
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	**0.772**	**133.7**	**135.1**	**132.8**	**132.7**	**133.0**
1.3.7.1 Saw milling and Planing of wood	0.124	122.2	126.2	121.1	120.1	119.5
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	135.5	136.7	135.1	135.4	135.3
1.3.7.3 Builder's carpentry and Joinery	0.036	176.2	171.5	178.0	178.0	178.0
1.3.7.4 Wooden containers	0.119	125.7	127.0	122.3	121.5	123.8
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	**1.113**	**121.1**	**123.8**	**120.3**	**120.0**	**120.3**
1.3.8.1 Pulp, Paper and Paperboard	0.493	125.0	130.5	122.6	123.4	123.7
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	114.8	115.3	116.9	113.8	114.8
1.3.8.3 Other articles of paper and Paperboard	0.306	121.3	121.7	119.9	120.8	120.4
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	**0.676**	**150.5**	**146.1**	**152.0**	**151.5**	**153.3**
1.3.9.1 Printing	0.676	150.5	146.1	152.0	151.5	153.3
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	**6.465**	**117.6**	**119.6**	**116.2**	**116.0**	**115.8**
1.3.10.1 Basic chemicals	1.433	120.0	125.3	116.8	117.2	116.5
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	123.1	123.0	122.7	122.9	122.7
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	112.5	115.5	110.8	109.2	109.1
1.3.10.4 Pesticides and Other agrochemical products	0.454	122.6	122.8	121.5	121.8	121.5
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	114.7	113.8	114.3	113.2	113.3
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	118.8	119.4	119.0	118.8	119.0
1.3.10.7 Other chemical products	0.692	114.1	115.9	113.4	113.3	113.6
1.3.10.8 Man-made fibres	0.296	97.9	102.7	95.6	95.5	95.6
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	**1.993**	**127.3**	**126.4**	**130.6**	**130.3**	**130.6**
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	127.3	126.4	130.6	130.3	130.6
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	**2.299**	**108.5**	**110.1**	**108.1**	**107.7**	**107.7**
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	99.0	99.3	99.3	98.7	98.2
1.3.12.2 Other Rubber Products	0.272	93.7	92.7	93.2	94.0	93.6
1.3.12.3 Plastics products	1.418	115.4	118.0	114.7	114.3	114.6
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	**3.202**	**116.7**	**116.6**	**115.7**	**116.3**	**116.5**
1.3.13.1 Glass and Glass products	0.295	124.7	125.0	126.2	125.4	125.9
1.3.13.2 Refractory products	0.223	108.7	110.4	108.6	108.7	107.9
1.3.13.3 Clay Building Materials	0.121	102.7	98.1	104.5	103.3	106.4
1.3.13.4 Other Porcelain and Ceramic Products	0.222	113.9	114.4	114.8	114.7	112.3
1.3.13.5 Cement, Lime and Plaster	1.645	119.5	117.3	117.9	119.4	119.4

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2019-20	2019	2020		
			Mar.	Jan.	Feb. (P)	Mar. (P)
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	121.7	122.0	122.5	123.0	122.8
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	119.8	119.7	118.9	117.9	121.0
1.3.13.8 Other Non-Metallic Mineral Products	0.169	86.6	105.2	78.1	78.1	78.1
1.3.14 MANUFACTURE OF BASIC METALS	**9.646**	**106.3**	**111.1**	**106.5**	**107.0**	**106.6**
1.3.14.1 Inputs into steel making	1.411	100.7	108.3	102.3	104.3	104.2
1.3.14.2 Metallic Iron	0.653	107.8	114.3	107.8	109.7	108.0
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	95.1	98.1	96.3	96.1	96.1
1.3.14.4 Mild Steel -Long Products	1.081	105.5	110.1	104.9	105.6	106.4
1.3.14.5 Mild Steel - Flat products	1.144	108.7	117.3	106.9	109.5	108.5
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	102.9	111.6	101.6	102.0	101.5
1.3.14.7 Stainless Steel - Semi Finished	0.924	102.8	109.7	105.3	104.0	101.8
1.3.14.8 Pipes & tubes	0.205	126.3	128.1	126.9	127.2	126.9
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	107.0	110.6	106.9	105.7	105.6
1.3.14.10 Castings	0.925	113.2	114.9	111.7	112.4	112.4
1.3.14.11 Forgings of steel	0.271	146.5	138.3	147.1	146.6	145.2
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	**3.155**	**115.5**	**116.8**	**115.2**	**114.6**	**114.7**
1.3.15.1 Structural Metal Products	1.031	113.8	115.0	113.0	112.9	112.5
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	124.4	126.1	124.2	123.0	124.9
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	104.7	104.8	106.3	107.7	107.7
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	100.3	103.9	98.2	98.0	99.0
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	100.5	100.1	101.8	100.9	100.9
1.3.15.6 Other Fabricated Metal Products	0.728	124.1	124.9	124.4	123.5	122.3
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	**2.009**	**110.3**	**111.4**	**109.6**	**109.5**	**109.3**
1.3.16.1 Electronic Components	0.402	98.2	98.8	97.4	98.9	97.9
1.3.16.2 Computers and Peripheral Equipment	0.336	135.0	135.0	135.0	135.0	135.0
1.3.16.3 Communication Equipment	0.310	117.0	116.3	116.8	115.0	114.6
1.3.16.4 Consumer Electronics	0.641	98.6	102.8	96.9	96.5	96.5
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	111.5	108.4	110.6	110.6	110.6
1.3.16.6 Watches and Clocks	0.076	139.1	139.7	140.5	140.9	141.1
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	103.6	102.5	104.9	104.7	108.0
1.3.16.8 Optical instruments and Photographic equipment	0.008	110.2	107.4	112.2	112.0	112.0
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	**2.930**	**111.3**	**112.3**	**110.8**	**110.7**	**111.7**
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	109.0	109.1	108.4	108.5	111.1
1.3.17.2 Batteries and Accumulators	0.236	117.0	116.8	116.6	115.9	115.9
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	110.1	125.8	108.0	107.6	104.7
1.3.17.4 Other electronic and Electric wires and Cables	0.428	109.8	111.0	110.5	109.4	109.3
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	111.1	109.8	111.3	111.7	111.7
1.3.17.6 Domestic appliances	0.366	119.9	120.3	118.3	118.2	118.1
1.3.17.7 Other electrical equipment	0.206	108.6	109.7	108.3	108.9	109.1
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	**4.789**	**113.1**	**112.3**	**113.2**	**113.4**	**112.9**
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	104.8	104.5	104.8	105.3	105.3
1.3.18.2 Fluid power equipment	0.162	119.9	118.5	120.1	119.6	119.6
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	111.2	109.3	112.3	111.7	110.4
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	110.0	109.6	111.2	111.0	108.6
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	80.0	77.7	80.9	81.0	81.0
1.3.18.6 Lifting and Handling equipment	0.285	111.6	111.8	111.7	112.0	110.9

No. 21: Wholesale Price Index (Concld.)

(Base: 2011-12 = 100)

Commodities	Weight	2019-20	2019	2020		
			Mar.	Jan.	Feb. (P)	Mar. (P)
1.3.18.7 Office machinery and Equipment	0.006	130.2	130.2	130.2	130.2	130.2
1.3.18.8 Other general-purpose machinery	0.437	130.9	128.3	127.8	128.4	128.5
1.3.18.9 Agricultural and Forestry machinery	0.833	120.6	119.4	121.1	121.4	121.5
1.3.18.10 Metal-forming machinery and Machine tools	0.224	108.1	105.0	108.2	109.5	109.7
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	75.1	77.1	75.7	75.0	74.8
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	125.1	124.5	126.3	128.6	128.6
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	119.6	120.3	119.3	117.7	117.8
1.3.18.14 Other special-purpose machinery	0.468	126.3	126.6	125.9	126.9	125.8
1.3.18.15 Renewable electricity generating equipment	0.046	66.1	66.6	65.4	65.4	65.4
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	**4.969**	**114.4**	**112.9**	**116.0**	**114.8**	**115.4**
1.3.19.1 Motor vehicles	2.600	115.0	113.0	116.4	114.8	116.1
1.3.19.2 Parts and Accessories for motor vehicles	2.368	113.7	112.8	115.5	114.8	114.7
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	**1.648**	**118.0**	**113.3**	**118.7**	**120.5**	**120.5**
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	106.5	105.8	107.0	106.0	105.8
1.3.20.3 Motor cycles	1.302	114.3	108.3	115.2	117.6	117.6
1.3.20.4 Bicycles and Invalid carriages	0.117	128.9	130.3	128.2	128.3	128.2
1.3.20.5 Other transport equipment	0.002	126.1	124.7	127.4	127.5	127.5
1.3.21 MANUFACTURE OF FURNITURE	**0.727**	**130.6**	**129.5**	**132.9**	**128.2**	**130.9**
1.3.21.1 Furniture	0.727	130.6	129.5	132.9	128.2	130.9
1.3.22 OTHER MANUFACTURING	**1.064**	**112.6**	**107.3**	**113.9**	**117.0**	**117.6**
1.3.22.1 Jewellery and Related articles	0.996	109.7	104.2	111.1	114.4	115.0
1.3.22.2 Musical instruments	0.001	174.0	177.5	177.2	175.1	174.5
1.3.22.3 Sports goods	0.012	129.7	126.4	131.7	131.3	131.0
1.3.22.4 Games and Toys	0.005	136.7	135.2	134.6	135.5	135.5
1.3.22.5 Medical and Dental instruments and Supplies	0.049	162.1	160.9	162.9	163.2	163.2
2 FOOD INDEX	**24.378**	**147.6**	**138.5**	**152.2**	**148.2**	**146.1**

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	2017-18	2018-19	April-February		February	
				2018-19	2019-20	2019	2020
	1	2	3	4	5	6	7
General Index	100.00	125.3	130.1	128.8	129.9	127.6	133.3
1 Sectoral Classification							
1.1 Mining	14.37	104.9	107.9	105.6	107.6	112.5	123.7
1.2 Manufacturing	77.63	126.6	131.5	130.3	131.1	129.3	133.5
1.3 Electricity	7.99	149.2	156.9	156.6	159.0	137.9	149.1
2 Use-Based Classification							
2.1 Primary Goods	34.05	121.8	126.1	124.8	126.2	121.1	130.1
2.2 Capital Goods	8.22	105.6	108.4	107.5	95.2	107.7	97.3
2.3 Intermediate Goods	17.22	125.1	126.2	123.6	138.7	118.5	145.1
2.4 Infrastructure/ Construction Goods	12.34	132.0	141.7	140.4	137.4	141.1	141.2
2.5 Consumer Durables	12.84	123.6	130.4	130.3	122.2	125.1	117.1
2.6 Consumer Non-Durables	15.33	139.9	145.5	144.5	147.4	153.9	153.9

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

Government Accounts and Treasury Bills

No. 23: Union Government Accounts at a Glance

(Amount in ₹ Crore)

Item	Financial Year	April - February			
	2019-20 (Revised Estimates)	2019-20 (Actuals)	2018-19 (Actuals)	Percentage to Revised Estimates	
				2019-20	2018-19
	1	2	3	4	5
1 Revenue Receipts	**1850101**	**1377777**	**1265678**	**74.5**	**73.2**
1.1 Tax Revenue (Net)	1504587	1114636	1093923	74.1	73.7
1.2 Non-Tax Revenue	345514	263141	171755	76.2	70.0
2 Non-Debt Capital Receipt	**81605**	**51092**	**71662**	**62.6**	**76.9**
2.1 Recovery of Loans	16605	15849	15042	95.4	114.3
2.2 Other Receipts	65000	35243	56620	54.2	70.8
3 Total Receipts (excluding borrowings) (1+2)	**1931706**	**1428869**	**1337340**	**74.0**	**73.4**
4 Revenue Expenditure	2349645	2160701	1915303	92.0	89.5
4.1 Interest Payments	625105	512984	501160	82.1	85.3
5 Capital Expenditure	348907	304653	273536	87.3	86.4
6 Total Expenditure (4+5)	**2698552**	**2465354**	**2188839**	**91.4**	**89.1**
7 Revenue Deficit (4-1)	**499544**	**782924**	**649625**	**156.7**	**158.1**
8 Fiscal Deficit (6-3)	**766846**	**1036485**	**851499**	**135.2**	**134.2**
9 Gross Primary Deficit (8-4.1)	**141741**	**523501**	**350339**	**369.3**	**748.1**

Source: Controller General of Accounts, Ministry of Finance, Government of India.

No. 24: Treasury Bills – Ownership Pattern

(₹ Crore)

Item	2018-19	2019	2020					
		Mar. 29	Feb. 21	Feb. 28	Mar. 6	Mar. 13	Mar. 20	Mar. 27
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	18521	18521	9067	11205	14313	11848	12826	10165
1.2 Primary Dealers	17878	17878	7688	10259	10785	9314	9116	9190
1.3 State Governments	26999	26999	24532	18532	14032	13877	10746	8173
1.4 Others	27747	27747	77157	66467	56887	54979	50577	48004
2 182-day								
2.1 Banks	31953	31953	74068	71102	67663	66537	66070	66419
2.2 Primary Dealers	38738	38738	34725	36667	29300	29629	36917	43302
2.3 State Governments	28036	28036	18600	18600	13285	13421	13386	13386
2.4 Others	18567	18567	14636	15656	26484	27215	24319	22465
3 364-day								
3.1 Banks	48811	48811	54458	52590	48225	47223	46954	49660
3.2 Primary Dealers	74170	74170	58577	61612	58885	57988	64818	70672
3.3 State Governments	18892	18892	11870	11870	11885	11905	11945	11945
3.4 Others	62393	62393	63606	62394	69885	72188	72104	70576
4 14-day Intermediate								
4.1 Banks								
4.2 Primary Dealers								
4.3 State Governments	165605	165605	160993	179421	137572	133969	154060	155112
4.4 Others	252	252	209	281	321	139	245	617
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	412704	412704	448983	436955	421629	416123	419779	423957

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

No. 25: Auctions of Treasury Bills

(Amount in ₹ Crore)

Date of Auction	Notified Amount	Bids Received			Bids Accepted			Total Issue (6+7)	Cut-off Price	Implicit Yield at Cut-off Price (per cent)
		Number	Total Face Value		Number	Total Face Value				
			Competitive	Non-Competitive		Competitive	Non-Competitive			
	1	2	3	4	5	6	7	8	9	10
91-day Treasury Bills										
2019-20										
Mar. 4	4000	76	25305	427	9	3975	427	4401	98.78	4.9538
Mar. 11	4000	77	21822	1380	33	3991	1380	5371	98.80	4.8696
Mar. 18	5000	81	23822	6495	35	4963	6495	11458	98.81	4.8297
Mar. 24	5000	80	13387	3224	46	4988	3224	8212	98.70	5.2830
Mar. 30	5000	59	23312	470	12	5000	470	5470	98.92	4.3595
182-day Treasury Bills										
2019-20										
Mar. 4	5000	68	21298	25	10	4975	25	5000	97.55	5.0400
Mar. 11	5000	59	12413	25	27	4975	25	5000	97.56	5.0158
Mar. 18	10000	71	18424	25	51	9975	25	10000	97.51	5.1317
Mar. 24	10000	51	18768	30	36	9970	30	10000	97.10	5.9896
Mar. 30	10000	133	43927	0	35	10000	0	10000	97.58	4.9694
364-day Treasury Bills										
2019-20										
Mar. 4	3000	79	22435	0	5	3000	0	3000	95.21	5.0400
Mar. 11	3000	60	12905	0	6	3000	0	3000	95.29	4.9597
Mar. 18	10000	48	17613	25	29	9975	25	10000	95.09	5.1805
Mar. 24	10000	73	30025	0	32	10000	0	10000	94.71	5.6008
Mar. 30	10000	102	33465	0	23	10000	0	10000	95.31	4.9396

Financial Markets

No. 26: Daily Call Money Rates

(Per cent per annum)

As on	Range of Rates	Weighted Average Rates
	Borrowings/ Lendings	Borrowings/ Lendings
	1	2
March 2, 2020	3.60-5.25	4.95
March 3, 2020	3.60-5.25	4.91
March 4, 2020	3.60-5.25	4.95
March 5, 2020	3.70-5.25	4.93
March 6, 2020	3.70-5.20	4.94
March 7, 2020	4.05-5.10	4.83
March 9, 2020	3.70-5.20	4.96
March 11, 2020	3.70-5.15	4.95
March 12, 2020	3.70-5.15	4.93
March 13, 2020	3.50-5.20	4.96
March 16, 2020	3.70-5.15	4.97
March 17, 2020	3.70-5.15	4.97
March 18, 2020	3.60-5.25	4.97
March 19, 2020	3.40-5.20	4.95
March 20, 2020	3.40-5.60	4.97
March 21, 2020	4.05-5.26	5.03
March 23, 2020	3.40-5.50	5.00
March 24, 2020	0.50-6.20	5.10
March 26, 2020	3.00-5.75	5.34
March 27, 2020	2.40-5.50	4.74
March 30, 2020	2.40-5.80	4.48
March 31, 2020	2.40-5.00	4.29
April 3, 2020	0.50-5.00	4.18
April 4, 2020	3.05-4.40	3.69
April 7, 2020	2.00-5.00	4.23
April 8, 2020	2.40-5.25	4.24
April 9, 2020	2.40-5.25	4.34
April 13, 2020	2.40-5.00	4.25
April 15, 2020	2.40-5.25	4.26

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2019	2020			
	Mar. 29	Feb. 14	Feb. 28	Mar. 13	Mar. 27
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	272260.35	186042.00	185932.00	173941.00	172996.00
1.1 Issued during the fortnight (₹ Crore)	52412.21	18874.41	16537.00	19166.55	18290.30
2 Rate of Interest (per cent)	7.09-8.45	5.22-7.16	5.22-6.76	4.95-6.50	4.96-8.80

No. 28: Commercial Paper

Item	2019	2020			
	Mar. 31	Feb. 15	Feb. 29	Mar. 15	Mar. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	483084.45	435803.25	400200.25	401724.55	344526.95
1.1 Reported during the fortnight (₹ Crore)	101295.55	84356.40	56287.50	148273.30	63166.10
2 Rate of Interest (per cent)	6.54-12.60	5.11-12.53	5.11-13.45	5.01-13.95	4.88-12.39

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Crore)

Item	2018-19	2019	2020					
		Mar. 29	Feb. 21	Feb. 28	Mar. 6	Mar. 13	Mar. 20	Mar. 27
	1	2	3	4	5	6	7	8
1 Call Money	31280	60255	28262	27447	18874	28364	30536	23920
2 Notice Money	4930	5115	1051	8014	5465	333	7169	1904
3 Term Money	740	477	742	973	710	491	1104	1239
4 CBLO/TRIPARTY REPO	213010	269785	259355	360008	339482	292617	411859	356209
5 Market Repo	200970	175735	221702	297486	270707	255973	346213	203083
6 Repo in Corporate Bond		8784	1210	80	260	100	1137	3670
7 Forex (US $ million)	67793	98933	59151	83533	89611	87651	83800	64600
8 Govt. of India Dated Securities	65800	65466	133831	117379	149653	156240	119391	41929
9 State Govt. Securities	4320	8419	6413	6094	8575	10045	4733	2699
10 Treasury Bills								
10.1 91-Day	3380	3545	6176	2315	7096	2185	4596	1848
10.2 182-Day	1450	952	1608	863	2763	1012	2161	1988
10.3 364-Day	1620	1806	1815	840	1367	639	1690	1543
10.4 Cash Management Bills	1400		2687	4596	12127	7779	4918	
11 Total Govt. Securities (8+9+10)	77970	80189	152530	132087	181582	177899	137490	50006
11.1 RBI	–	765	267	211	19	17	239	7873

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

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

(Amount in ₹ Crore)

Security & Type of Issue	2018-19		2018-19 (Apr.-Mar.)		2019-20 (Apr.-Mar.) *		Mar. 2019		Mar. 2020 *	
	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
	1	2	3	4	5	6	7	8	9	10
1 Equity Shares	**129**	**16754**	**129**	**16754**	**72**	**64926**	**9**	**150**	**7**	**390**
1A Premium	124	16085	124	16085	70	43259	9	124	7	371
1.1 Public	119	14605	119	14605	57	9867	8	126	4	16
1.1.1 Premium	115	14123	115	14123	55	9434	8	102	4	9
1.2 Rights	10	2149	10	2149	15	55059	1	25	3	374
1.2.1 Premium	9	1962	9	1962	15	33825	1	22	3	362
2 Preference Shares	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
2.1 Public	–	–	–	–	–	–	–	–	–	–
2.2 Rights	–	–	–	–	–	–	–	–	–	–
3 Bonds & Debentures	**25**	**36680**	**25**	**36680**	**34**	**14984**	**3**	**2836**	**2**	**325**
3.1 Convertible	–	–	–	–	–	–	–	–	–	–
3.1.1 Public	–	–	–	–	–	–	–	–	–	–
3.1.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2 Non-Convertible	25	36680	25	36680	34	14984	3	2836	2	325
3.2.1 Public	25	36680	25	36680	34	14984	3	2836	2	325
3.2.2 Rights	–	–	–	–	–	–	–	–	–	–
4 Total(1+2+3)	**154**	**53433**	**154**	**53433**	**106**	**79910**	**12**	**2986**	**9**	**715**
4.1 Public	144	51284	144	51284	91	24851	11	2961	6	341
4.2 Rights	10	2149	10	2149	15	55059	1	25	3	374

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.

* : Data is Provisional

External Sector

No. 31: Foreign Trade

Item	Unit	2019-20	2019			2020		
			Mar.	Nov.	Dec.	Jan.	Feb.	Mar.
		1	2	3	4	5	6	7
1 Exports	₹ Crore	2226567	227318	185483	194919	185219	197646	159158
	US $ Million	314314	32718	25959	27379	25972	27647	21406
1.1 Oil	₹ Crore	302858	25130	28669	27711	23555	24265	18523
	US $ Million	42782	3617	4012	3892	3303	3394	2491
1.2 Non-oil	₹ Crore	1923709	202188	156814	167208	161664	173382	140635
	US $ Million	271532	29101	21947	23487	22669	24253	18915
2 Imports	₹ Crore	3307977	303754	275336	282124	293440	268064	231711
	US $ Million	467193	43719	38535	39628	41148	37497	31165
2.1 Oil	₹ Crore	917306	81858	79090	76110	92503	76894	74462
	US $ Million	129431	11782	11069	10691	12971	10756	10015
2.2 Non-oil	₹ Crore	2390671	221896	196246	206014	200938	191170	157249
	US $ Million	337762	31937	27466	28938	28177	26741	21150
3 Trade Balance	₹ Crore	-1081410	-76436	-89854	-87205	-108221	-70418	-72553
	US $ Million	-152879	-11001	-12575	-12249	-15175	-9850	-9758
3.1 Oil	₹ Crore	-614448	-56728	-50421	-48399	-68948	-52629	-55939
	US $ Million	-86648	-8165	-7057	-6798	-9668	-7362	-7524
3.2 Non-oil	₹ Crore	-466962	-19708	-39433	-38806	-39274	-17788	-16614
	US $ Million	-66231	-2837	-5519	-5451	-5507	-2488	-2235

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

No. 32: Foreign Exchange Reserves

Item	Unit	2019	2020					
		Apr. 19	Mar. 13	Mar. 20	Mar. 27	Apr. 3	Apr. 10	Apr. 17
		1	2	3	4	5	6	7
1 Total Reserves	**₹ Crore**	**2874380**	**3565980**	**3529606**	**3557630**	**3607076**	**3635060**	**3662709**
	US $ Million	**414147**	**481892**	**469909**	**475561**	**474660**	**476475**	**479568**
1.1 Foreign Currency Assets	₹ Crore	2679800	3310406	3283222	3289068	3337024	3359313	3374844
	US $ Million	386034	447358	437102	439663	439116	440338	441884
1.2 Gold	₹ Crore	161190	218050	209238	231084	232161	237531	249585
	US $ Million	23303	29467	27856	30890	30550	31136	32679
1.3 SDRs	SDRs Million	1049	1045	1045	1045	1045	1045	1045
	₹ Crore	10100	10722	10582	10642	10848	10862	10896
	US $ Million	1456	1449	1409	1423	1427	1424	1427
1.4 Reserve Tranche Position in IMF	₹ Crore	23290	26801	26564	26836	27043	27353	27384
	US $ Million	3355	3618	3542	3586	3566	3578	3578

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

No. 33: NRI Deposits

(US$ Million)

Scheme	Outstanding				Flows	
	2019-20	2019	2020		2018-19	2019-20
		Mar.	Feb.	Mar.	Apr.-Mar.	Apr.-Mar.
	1	2	3	4	5	6
1 NRI Deposits	**130581**	**130423**	**132511**	**130581**	**10387**	**8628**
1.1 FCNR(B)	24244	23170	24242	24244	1145	1074
1.2 NR(E)RA	90368	92017	92049	90368	7308	5566
1.3 NRO	15969	15236	16220	15969	1935	1988

No. 34: Foreign Investment Inflows

(US$ Million)

Item	2019-20	2018-19	2019-20	2019	2020	
		Apr.-Mar.	Apr.-Mar.	Mar.	Feb.	Mar.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1–1.1.2)	**42694**	**30712**	**42694**	**789**	**1981**	**2874**
1.1.1 Direct Investment to India (1.1.1.1–1. 1.1.2)	**55612**	**43302**	**55612**	**3240**	**3542**	**4458**
1.1.1.1 Gross Inflows/Gross Investments	**73455**	**62001**	**73455**	**5130**	**4882**	**5799**
1.1.1.1.1 Equity	51203	45055	51203	3662	3422	4339
1.1.1.1.1.1 Government (SIA/FIPB)	3265	2429	3265	277	26	188
1.1.1.1.1.2 RBI	39364	36315	39364	2528	3149	3004
1.1.1.1.1.3 Acquisition of shares	7348	5622	7348	796	186	1086
1.1.1.1.1.4 Equity capital of unincorporated bodies	1226	689	1226	61	61	61
1.1.1.1.2 Reinvested earnings	14052	13672	14052	1217	1217	1217
1.1.1.1.3 Other capital	8200	3274	8200	251	243	243
1.1.1.2 Repatriation/Disinvestment	**17843**	**18699**	**17843**	**1890**	**1340**	**1340**
1.1.1.2.1 Equity	17670	18452	17670	1879	1339	1339
1.1.1.2.2 Other capital	173	247	173	12	2	2
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3–1.1.2.4)	**12918**	**12590**	**12918**	**2450**	**1561**	**1584**
1.1.2.1 Equity capital	6528	7201	6528	966	503	611
1.1.2.2 Reinvested Earnings	3121	3032	3121	253	253	253
1.1.2.3 Other Capital	5951	5202	5951	1629	1131	1047
1.1.2.4 Repatriation/Disinvestment	2683	2845	2683	398	326	326
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3–1.2.4)	**-138**	**-618**	**-138**	**8623**	**1021**	**-16165**
1.2.1 GDRs/ADRs	–	1820	–	–	–	–
1.2.2 FIIs	247	-2225	247	9301	1133	-16053
1.2.3 Offshore funds and others	–	–	–	–	–	–
1.2.4 Portfolio investment by India	386	213	386	678	112	112
1 Foreign Investment Inflows	**42556**	**30094**	**42556**	**9412**	**3002**	**-13291**

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

(US$ Million)

Item	2019-20	2019	2020		
		Mar.	Jan.	Feb.	Mar.
	1	2	3	4	5
1 Outward Remittances under the LRS	**18751.40**	**1476.82**	**1804.50**	**1686.70**	**1349.52**
1.1 Deposit	623.37	100.62	55.94	50.17	112.96
1.2 Purchase of immovable property	86.43	10.51	6.67	7.59	8.99
1.3 Investment in equity/debt	431.41	74.44	26.20	29.68	49.22
1.4 Gift	1904.53	161.01	158.44	196.77	187.73
1.5 Donations	22.32	0.33	1.10	1.16	0.75
1.6 Travel	6954.20	429.19	712.56	539.74	305.47
1.7 Maintenance of close relatives	3437.46	322.88	310.83	342.58	344.03
1.8 Medical Treatment	33.88	2.49	2.59	4.02	3.19
1.9 Studies Abroad	4989.04	333.75	510.26	496.87	310.66
1.10 Others	268.74	41.59	19.90	18.10	26.54

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

Item	2018-19	2019-20	2019	2020	
			April	March	April
	1	2	3	4	5
36-Currency Export and Trade Based Weights (Base: 2004-05=100)					
1 Trade-Based Weights					
1.1 NEER	72.64	73.28	74.01	71.19	70.46
1.2 REER	114.01	116.76	115.16	114.66	113.48
2 Export-Based Weights					
2.1 NEER	74.18	74.33	75.26	72.08	71.27
2.2 REER	116.32	119.61	118.07	117.29	115.97
6-Currency Trade Based Weights					
1 Base: 2004-05 (April-March) =100					
1.1 NEER	63.07	63.59	64.07	60.81	59.75
1.2 REER	121.70	125.76	123.67	121.79	118.98
2 Base: 2017-18 (April-March) =100					
2.1 NEER	92.88	93.63	94.35	89.55	87.99
2.2 REER	94.20	97.32	95.73	94.27	92.10

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

(Amount in US$ Million)

Item	2018-19	2019	2020	
		Mar.	Feb.	Mar.
	1	2	3	4
1 Automatic Route				
1.1 Number	999	130	84	115
1.2 Amount	28387	4894	1159	4959
2 Approval Route				
2.1 Number	21	7	7	8
2.2 Amount	13537	7831	3017	2478
3 Total (1+2)				
3.1 Number	1020	137	91	123
3.2 Amount	41924	12725	4175	7437
4 Weighted Average Maturity (in years)	5.20	5.10	8.66	5.58
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	1.20	1.29	2.01	1.07
5.2 Interest rate range for Fixed Rate Loans	0.00-15.00	0.00-11.65	0.00-11.00	0.00-10.50

No. 38: India's Overall Balance of Payments

(US $ Million)

Item	Oct-Dec 2018(PR)			Oct-Dec 2019(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**285511**	**289806**	**-4296**	**314908**	**293307**	**21601**
1 CURRENT ACCOUNT (1.1+ 1.2)	**162792**	**180544**	**-17752**	**162579**	**163995**	**-1417**
1.1 MERCHANDISE	**83082**	**132363**	**-49281**	**81232**	**115856**	**-34625**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**79710**	**48181**	**31529**	**81347**	**48139**	**33208**
1.2.1 Services	55075	33397	21678	55158	33278	21880
1.2.1.1 Travel	7372	4865	2508	8545	5569	2977
1.2.1.2 Transportation	4807	5231	-424	5448	6411	-963
1.2.1.3 Insurance	689	419	271	617	549	67
1.2.1.4 G.n.i.e.	144	289	-145	157	218	-62
1.2.1.5 Miscellaneous	42062	22594	19469	40391	20531	19860
1.2.1.5.1 Software Services	21148	1254	19895	23760	2305	21455
1.2.1.5.2 Business Services	9978	10135	-156	11889	12027	-138
1.2.1.5.3 Financial Services	1324	992	332	1183	550	633
1.2.1.5.4 Communication Services	673	284	390	757	308	449
1.2.2 Transfers	18976	1552	17424	20627	1935	18693
1.2.2.1 Official	102	237	-134	50	290	-240
1.2.2.2 Private	18874	1316	17558	20577	1645	18932
1.2.3 Income	5658	13231	-7573	5562	12926	-7364
1.2.3.1 Investment Income	4295	12639	-8344	4122	12232	-8110
1.2.3.2 Compensation of Employees	1363	592	771	1440	694	746
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**122719**	**108948**	**13770**	**151666**	**129312**	**22355**
2.1 Foreign Investment (2.1.1+2.1.2)	**73237**	**68038**	**5199**	**94408**	**76606**	**17802**
2.1.1 Foreign Direct Investment	16130	8820	7309	19713	9740	9973
2.1.1.1 In India	15505	5139	10366	19085	5856	13229
2.1.1.1.1 Equity	11002	5101	5901	11033	5747	5286
2.1.1.1.2 Reinvested Earnings	3450		3450	3590		3590
2.1.1.1.3 Other Capital	1052	38	1014	4462	109	4354
2.1.1.2 Abroad	625	3681	-3056	628	3884	-3256
2.1.1.2.1 Equity	625	1817	-1192	628	1804	-1176
2.1.1.2.2 Reinvested Earnings	0	758	-758	0	788	-788
2.1.1.2.3 Other Capital	0	1106	-1106	0	1293	-1293
2.1.2 Portfolio Investment	57107	59218	-2111	74695	66866	7829
2.1.2.1 In India	56733	58921	-2188	71761	63627	8133
2.1.2.1.1 FIIs	56733	58921	-2188	71761	63627	8133
2.1.2.1.1.1 Equity	45530	47949	-2419	56356	50342	6014
2.1.2.1.1.2 Debt	11203	10972	231	15405	13285	2119
2.1.2.1.2 ADR/GDRs	0		0	0		0
2.1.2.2 Abroad	374	297	77	2934	3239	-304
2.2 Loans (2.2.1+2.2.2+2.2.3)	**20492**	**17554**	**2938**	**23041**	**19910**	**3131**
2.2.1 External Assistance	2960	1278	1682	2511	1243	1268
2.2.1.1 By India	11	29	-18	2	28	-26
2.2.1.2 To India	2949	1249	1700	2509	1215	1294
2.2.2 Commercial Borrowings	10468	8466	2002	11007	7774	3233
2.2.2.1 By India	3337	3346	-9	2692	2687	5
2.2.2.2 To India	7131	5120	2011	8315	5087	3228
2.2.3 Short Term to India	7064	7809	-745	9523	10893	-1370
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	4433	7809	-3377	9523	10129	-606
2.2.3.2 Suppliers' Credit up to 180 days	2631	0	2631	0	764	-764
2.3 Banking Capital (2.3.1+2.3.2)	**21193**	**16279**	**4913**	**21012**	**23336**	**-2324**
2.3.1 Commercial Banks	21193	16095	5098	21012	23279	-2266
2.3.1.1 Assets	5964	1763	4202	5753	7260	-1507
2.3.1.2 Liabilities	15228	14332	896	15259	16019	-760
2.3.1.2.1 Non-Resident Deposits	13298	13159	139	14407	13579	828
2.3.2 Others	0	185	-185	0	58	-58
2.4 Rupee Debt Service		0	0		0	0
2.5 Other Capital	7797	7077	720	13205	9460	3745
3 Errors & Omissions		**314**	**-314**	**663**		**663**
4 Monetary Movements (4.1+ 4.2)	**4296**	0	**4296**	0	**21601**	**-21601**
4.1 I.M.F.	0	0	0			
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	4296	0	4296	0	21601	-21601

Note : P : Preliminary PR: Partially Revised

No. 39: India's Overall Balance of Payments

(₹ Crore)

Item	Oct-Dec 2018(PR)			Oct-Dec 2019(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**2057747**	**2088707**	**-30960**	**2243026**	**2089165**	**153861**
1 CURRENT ACCOUNT (1.1+ 1.2)	**1173282**	**1301224**	**-127943**	**1158014**	**1168105**	**-10091**
1.1 MERCHANDISE	**598791**	**953970**	**-355179**	**578595**	**825220**	**-246625**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**574491**	**347254**	**227236**	**579419**	**342885**	**236534**
1.2.1 Services	396941	240704	156237	392878	237033	155845
1.2.1.1 Travel	53135	35060	18075	60866	39664	21202
1.2.1.2 Transportation	34647	37704	-3057	38802	45662	-6860
1.2.1.3 Insurance	4967	3016	1950	4395	3914	481
1.2.1.4 G.n.i.e.	1039	2086	-1047	1116	1555	-438
1.2.1.5 Miscellaneous	303153	162837	140316	287699	146238	141461
1.2.1.5.1 Software Services	152422	9037	143385	169238	16420	152819
1.2.1.5.2 Business Services	71917	73043	-1126	84680	85666	-986
1.2.1.5.3 Financial Services	9541	7149	2392	8427	3917	4510
1.2.1.5.4 Communication Services	4854	2046	2808	5390	2194	3196
1.2.2 Transfers	136768	11188	125580	146924	13780	133143
1.2.2.1 Official	738	1705	-967	358	2066	-1708
1.2.2.2 Private	136030	9483	126547	146566	11714	134852
1.2.3 Income	40781	95362	-54581	39617	92072	-52455
1.2.3.1 Investment Income	30957	91096	-60139	29362	87129	-57766
1.2.3.2 Compensation of Employees	9824	4266	5558	10255	4943	5312
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**884465**	**785218**	**99247**	**1080286**	**921060**	**159227**
2.1 Foreign Investment (2.1.1+2.1.2)	527835	490368	37468	672447	545645	126802
2.1.1 Foreign Direct Investment	116250	63571	52680	140410	69373	71037
2.1.1.1 In India	111745	37038	74707	135938	41710	94229
2.1.1.1.1 Equity	79294	36764	42530	78585	40936	37649
2.1.1.1.2 Reinvested Earnings	24868	0	24868	25569		25569
2.1.1.1.3 Other Capital	7583	274	7309	31784	774	31011
2.1.1.2 Abroad	4505	26532	-22027	4472	27664	-23192
2.1.1.2.1 Equity	4505	13097	-8592	4472	12846	-8375
2.1.1.2.2 Reinvested Earnings	0	5464	-5464		5611	-5611
2.1.1.2.3 Other Capital	0	7971	-7971	0	9207	-9207
2.1.2 Portfolio Investment	411585	426797	-15212	532037	476272	55765
2.1.2.1 In India	408890	424658	-15768	511136	453204	57933
2.1.2.1.1 FIIs	408890	424658	-15768	511136	453204	57933
2.1.2.1.1.1 Equity	328145	345579	-17434	401412	358574	42838
2.1.2.1.1.2 Debt	80746	79080	1666	109725	94630	15095
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	2695	2139	556	20901	23068	-2168
2.2 Loans (2.2.1+2.2.2+2.2.3)	**147693**	**126518**	**21175**	**164114**	**141812**	**22303**
2.2.1 External Assistance	21334	9213	12121	17887	8856	9031
2.2.1.1 By India	81	209	-128	14	201	-187
2.2.1.2 To India	21253	9004	12249	17873	8655	9218
2.2.2 Commercial Borrowings	75446	61020	14425	78398	55370	23028
2.2.2.1 By India	24052	24119	-67	19175	19136	39
2.2.2.2 To India	51394	36901	14493	59224	36234	22990
2.2.3 Short Term to India	50913	56284	-5372	67829	77586	-9757
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	31949	56284	-24335	67829	72147	-4318
2.2.3.2 Suppliers' Credit up to 180 days	18964	0	18964	0	5439	-5439
2.3 Banking Capital (2.3.1+2.3.2)	**152740**	**117328**	**35412**	**149666**	**166220**	**-16553**
2.3.1 Commercial Banks	152740	115997	36743	149666	165808	-16142
2.3.1.1 Assets	42987	12706	30281	40978	51709	-10731
2.3.1.2 Liabilities	109753	103292	6461	108688	114099	-5411
2.3.1.2.1 Non-Resident Deposits	95839	94838	1001	102621	96723	5898
2.3.2 Others	0	1331	-1331	0	411	-411
2.4 Rupee Debt Service	0	0	0	0	0	0
2.5 Other Capital	56197	51005	5192	94059	67383	26675
3 Errors & Omissions	0	**2264**	**-2264**	**4725**	0	**4725**
4 Monetary Movements (4.1+ 4.2)	**30960**	0	**30960**	0	**153861**	**-153861**
4.1 I.M.F.	0	0	0			
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	30960	0	30960	0	153861	-153861

Note : P: Preliminary PR: Partially Revised

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

(US $ Million)

Item	Oct-Dec 2018(PR)			Oct-Dec 2019(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**162786**	**180523**	**-17738**	**162576**	**163968**	**-1391**
1.A Goods and Services (1.A.a+1.A.b)	**138157**	**165760**	**-27603**	**136389**	**149134**	**-12745**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**83082**	**132363**	**-49281**	**81232**	**115856**	**-34625**
1.A.a.1 General merchandise on a BOP basis	82438	125275	-42837	80294	108605	-28311
1.A.a.2 Net exports of goods under merchanting	643	0	643	938		938
1.A.a.3 Nonmonetary gold		7087	-7087		7252	-7252
1.A.b Services (1.A.b.1 to 1.A.b.13)	**55075**	**33397**	**21678**	**55158**	**33278**	**21880**
1.A.b.1 Manufacturing services on physical inputs owned by others	99	13	87	76	9	67
1.A.b.2 Maintenance and repair services n.i.e.	64	376	-313	64	207	-143
1.A.b.3 Transport	4807	5231	-424	5448	6411	-963
1.A.b.4 Travel	7372	4865	2508	8545	5569	2977
1.A.b.5 Construction	865	618	247	734	570	164
1.A.b.6 Insurance and pension services	689	419	271	617	549	67
1.A.b.7 Financial services	1324	992	332	1183	550	633
1.A.b.8 Charges for the use of intellectual property n.i.e.	182	2173	-1990	184	2197	-2013
1.A.b.9 Telecommunications, computer, and information services	21907	1629	20278	24592	2712	21880
1.A.b.10 Other business services	9978	10135	-156	11889	12027	-138
1.A.b.11 Personal, cultural, and recreational services	459	583	-124	535	757	-222
1.A.b.12 Government goods and services n.i.e.	144	289	-145	157	218	-62
1.A.b.13 Others n.i.e.	7183	6075	1108	1134	1502	-367
1.B Primary Income (1.B.1 to 1.B.3)	**5658**	**13231**	**-7573**	**5562**	**12926**	**-7364**
1.B.1 Compensation of employees	1363	592	771	1440	694	746
1.B.2 Investment income	3438	12472	-9035	3312	12078	-8767
1.B.2.1 Direct investment	1668	6495	-4827	1369	5760	-4391
1.B.2.2 Portfolio investment	35	2311	-2277	28	2435	-2408
1.B.2.3 Other investment	204	3653	-3449	138	3871	-3733
1.B.2.4 Reserve assets	1531	14	1517	1777	12	1764
1.B.3 Other primary income	857	167	690	811	154	657
1.C Secondary Income (1.C.1+1.C.2)	**18970**	**1532**	**17438**	**20625**	**1907**	**18718**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	18874	1316	17558	20577	1645	18932
1.C.1.1 Personal transfers (Current transfers between resident and/	18200	987	17213	19862	1189	18673
1.C.1.2 Other current transfers	674	329	345	715	455	260
1.C.2 General government	96	216	-120	48	262	-214
2 Capital Account (2.1+2.2)	**71**	**147**	**-76**	**108**	**258**	**-150**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	5	42	-36	19	108	-89
2.2 Capital transfers	66	106	-40	89	150	-61
3 Financial Account (3.1 to 3.5)	**126950**	**108822**	**18128**	**151560**	**150683**	**878**
3.1 Direct Investment (3.1A+3.1B)	**16130**	**8820**	**7309**	**19713**	**9740**	**9973**
3.1.A Direct Investment in India	15505	5139	10366	19085	5856	13229
3.1.A.1 Equity and investment fund shares	14452	5101	9351	14623	5747	8875
3.1.A.1.1 Equity other than reinvestment of earnings	11002	5101	5901	11033	5747	5286
3.1.A.1.2 Reinvestment of earnings	3450		3450	3590		3590
3.1.A.2 Debt instruments	1052	38	1014	4462	109	4354
3.1.A.2.1 Direct investor in direct investment enterprises	1052	38	1014	4462	109	4354
3.1.B Direct Investment by India	625	3681	-3056	628	3884	-3256
3.1.B.1 Equity and investment fund shares	625	2575	-1950	628	2591	-1963
3.1.B.1.1 Equity other than reinvestment of earnings	625	1817	-1192	628	1804	-1176
3.1.B.1.2 Reinvestment of earnings		758	-758		788	-788
3.1.B.2 Debt instruments	0	1106	-1106	0	1293	-1293
3.1.B.2.1 Direct investor in direct investment enterprises		1106	-1106		1293	-1293
3.2 Portfolio Investment	**57107**	**59218**	**-2111**	**74695**	**66866**	**7829**
3.2.A Portfolio Investment in India	56733	58921	-2188	71761	63627	8133
3.2.1 Equity and investment fund shares	45530	47949	-2419	56356	50342	6014
3.2.2 Debt securities	11203	10972	231	15405	13285	2119
3.2.B Portfolio Investment by India	374	297	77	2934	3239	-304
3.3 Financial derivatives (other than reserves) and employee stock options	**5859**	**5362**	**497**	**7328**	**7194**	**134**
3.4 Other investment	**43559**	**35422**	**8137**	**49825**	**45282**	**4542**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	13298	13343	-46	14407	13637	770
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	185	-185	0	58	-58
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	13298	13159	139	14407	13579	828
3.4.2.3 General government						
3.4.2.4 Other sectors						
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	21323	12681	8642	20123	18716	1407
3.4.3.A Loans to India	17975	9305	8670	17429	16001	1428
3.4.3.B Loans by India	3348	3376	-27	2694	2715	-21
3.4.4 Insurance, pension, and standardized guarantee schemes	29	207	-179	190	660	-469
3.4.5 Trade credit and advances	7064	7809	-745	9523	10893	-1370
3.4.6 Other accounts receivable/payable - other	1845	1381	464	5581	1377	4205
3.4.7 Special drawing rights						0
3.5 Reserve assets	**4296**	0	**4296**	0	**21601**	**-21601**
3.5.1 Monetary gold						0
3.5.2 Special drawing rights n.a.						0
3.5.3 Reserve position in the IMF n.a.						0
3.5.4 Other reserve assets (Foreign Currency Assets)	4296	0	4296	0	21601	-21601
4 Total assets/liabilities	**126950**	**108822**	**18128**	**151560**	**150683**	**878**
4.1 Equity and investment fund shares	66869	61491	5378	82059	69772	12287
4.2 Debt instruments	53940	45950	7991	63920	57933	5988
4.3 Other financial assets and liabilities	6141	1381	4759	5581	22978	-17396
5 Net errors and omissions		**314**	**-314**	**663**		**663**

Note : P : Preliminary PR: Partially Revised

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

(₹ Crore)

Item	Oct-Dec 2018(PR)			Oct-Dec 2019(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**1173236**	**1301076**	**-127839**	**1157998**	**1167908**	**-9910**
1.A Goods and Services (1.A.a+1.A.b)	**995732**	**1194674**	**-198942**	**971473**	**1062253**	**-90780**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**598791**	**953970**	**-355179**	**578595**	**825220**	**-246625**
1.A.a.1 General merchandise on a BOP basis	594154	902892	-308738	571916	773569	-201652
1.A.a.2 Net exports of goods under merchanting	4637	0	4637	6679	0	6679
1.A.a.3 Nonmonetary gold	0	51078	-51078	0	51652	-51652
1.A.b Services (1.A.b.1 to 1.A.b.13)	**396941**	**240704**	**156237**	**392878**	**237033**	**155845**
1.A.b.1 Manufacturing services on physical inputs owned by others	716	91	626	543	63	480
1.A.b.2 Maintenance and repair services n.i.e.	460	2713	-2254	456	1477	-1021
1.A.b.3 Transport	34647	37704	-3057	38802	45662	-6860
1.A.b.4 Travel	53135	35060	18075	60866	39664	21202
1.A.b.5 Construction	6235	4455	1781	5227	4057	1170
1.A.b.6 Insurance and pension services	4967	3016	1950	4395	3914	481
1.A.b.7 Financial services	9541	7149	2392	8427	3917	4510
1.A.b.8 Charges for the use of intellectual property n.i.e.	1314	15658	-14344	1312	15650	-14338
1.A.b.9 Telecommunications, computer, and information services	157892	11741	146151	175162	19318	155844
1.A.b.10 Other business services	71917	73043	-1126	84680	85666	-986
1.A.b.11 Personal, cultural, and recreational services	3311	4203	-892	3813	5395	-1582
1.A.b.12 Government goods and services n.i.e.	1039	2086	-1047	1116	1555	-438
1.A.b.13 Others n.i.e.	51768	43785	7982	8079	10696	-2617
1.B Primary Income (1.B.1 to 1.B.3)	**40781**	**95362**	**-54581**	**39617**	**92072**	**-52455**
1.B.1 Compensation of employees	9824	4266	5558	10255	4943	5312
1.B.2 Investment income	24777	89892	-65115	23588	86031	-62443
1.B.2.1 Direct investment	12022	46809	-34787	9753	41027	-31274
1.B.2.2 Portfolio investment	250	16658	-16408	199	17347	-17148
1.B.2.3 Other investment	1471	26327	-24857	982	27570	-26588
1.B.2.4 Reserve assets	11034	97	10936	12655	88	12567
1.B.3 Other primary income	6180	1204	4976	5774	1097	4677
1.C Secondary Income (1.C.1+1.C.2)	**136723**	**11039**	**125684**	**146908**	**13584**	**133324**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	136030	9483	126547	146566	11714	134852
1.C.1.1 Personal transfers (Current transfers between resident and/	131173	7113	124060	141473	8471	133002
1.C.1.2 Other current transfers	4857	2370	2487	5093	3243	1850
1.C.2 General government	693	1556	-864	342	1869	-1527
2 Capital Account (2.1+2.2)	**512**	**1063**	**-550**	**770**	**1837**	**-1068**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	39	299	-260	132	768	-636
2.2 Capital transfers	473	763	-290	637	1069	-432
3 Financial Account (3.1 to 3.5)	**914958**	**784305**	**130653**	**1079533**	**1073281**	**6253**
3.1 Direct Investment (3.1A+3.1B)	**116250**	**63571**	**52680**	**140410**	**69373**	**71037**
3.1.A Direct Investment in India	111745	37038	74707	135938	41710	94229
3.1.A.1 Equity and investment fund shares	104162	36764	67398	104154	40936	63218
3.1.A.1.1 Equity other than reinvestment of earnings	79294	36764	42530	78585	40936	37649
3.1.A.1.2 Reinvestment of earnings	24868	0	24868	25569	0	25569
3.1.A.2 Debt instruments	7583	274	7309	31784	774	31011
3.1.A.2.1 Direct investor in direct investment enterprises	7583	274	7309	31784	774	31011
3.1.B Direct Investment by India	4505	26532	-22027	4472	27664	-23192
3.1.B.1 Equity and investment fund shares	4505	18561	-14056	4472	18457	-13985
3.1.B.1.1 Equity other than reinvestment of earnings	4505	13097	-8592	4472	12846	-8375
3.1.B.1.2 Reinvestment of earnings	0	5464	-5464	0	5611	-5611
3.1.B.2 Debt instruments	0	7971	-7971	0	9207	-9207
3.1.B.2.1 Direct investor in direct investment enterprises	0	7971	-7971	0	9207	-9207
3.2 Portfolio Investment	**411585**	**426797**	**-15212**	**532037**	**476272**	**55765**
3.2.A Portfolio Investment in India	408890	424658	-15768	511136	453204	57933
3.2.1 Equity and investment fund shares	328145	345579	-17434	401412	358574	42838
3.2.2 Debt securities	80746	79080	1666	109725	94630	15095
3.2.B Portfolio Investment by India	2695	2139	556	20901	23068	-2168
3.3 Financial derivatives (other than reserves) and employee stock options	**42225**	**38642**	**3583**	**52196**	**51239**	**957**
3.4 Other investment	**313938**	**255295**	**58642**	**354890**	**322535**	**32355**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	95839	96169	-330	102621	97135	5486
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	1331	-1331	0	411	-411
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	95839	94838	1001	102621	96723	5898
3.4.2.3 General government	0	0	0	0	0	0
3.4.2.4 Other sectors	0	0	0	0	0	0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	153680	91392	62288	143331	133310	10020
3.4.3.A Loans to India	129547	67064	62483	124142	113973	10168
3.4.3.B Loans by India	24133	24328	-195	19189	19337	-148
3.4.4 Insurance, pension, and standardized guarantee schemes	207	1494	-1287	1355	4699	-3344
3.4.5 Trade credit and advances	50913	56284	-5372	67829	77586	-9757
3.4.6 Other accounts receivable/payable - other	13298	9955	3343	39755	9805	29949
3.4.7 Special drawing rights	0	0	0	0	0	0
3.5 Reserve assets	**30960**	**0**	**30960**	**0**	**153861**	**-153861**
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)	30960	0	30960	0	153861	-153861
4 Total assets/liabilities	**914958**	**784305**	**130653**	**1079533**	**1073281**	**6253**
4.1 Equity and investment fund shares	481939	443179	38761	584489	496972	87516
4.2 Debt instruments	388761	331171	57590	455289	412642	42648
4.3 Other financial assets and liabilities	44258	9955	34302	39755	163666	-123912
5 Net errors and omissions	**0**	**2264**	**-2264**	**4725**	**0**	**4725**

Note : P: Preliminary PR: Partially Revised

No. 42: International Investment Position

(US$ Million)

Item	As on Financial Year /Quarter End							
	2018-19		2018		2019			
			Dec.		Sep.		Dec.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1 Direct Investment Abroad/in India	169964	399229	166594	386172	175438	417137	178694	426928
1.1 Equity Capital and Reinvested Earnings	111122	382105	109875	369544	114340	398819	116303	404393
1.2 Other Capital	58841	17124	56719	16628	61099	18318	62392	22536
2 Portfolio Investment	4699	260313	2666	245842	4541	260001	4845	266707
2.1 Equity	590	147479	1386	138091	2344	144039	2619	148859
2.2 Debt	4109	112834	1280	107752	2197	115962	2226	117848
3 Other Investment	54538	419092	41550	401165	55406	428901	54006	430301
3.1 Trade Credit	924	105192	252	103657	1707	106581	2286	105214
3.2 Loan	9884	167924	6553	160322	7895	174838	6183	177286
3.3 Currency and Deposits	25158	130644	17211	125997	27563	133105	27099	133331
3.4 Other Assets/Liabilities	18574	15332	17534	11190	18240	14378	18438	14469
4 Reserves	412871		395591		433707		459863	
5 Total Assets/ Liabilities	642072	1078634	606401	1033179	669092	1106039	697409	1123937
6 IIP (Assets - Liabilities)		-436563		-426779		-436947		-426528

Payment and Settlement Systems

No.43: Payment System Indicators

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

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2018-19	2019	2020		FY 2018-19	2019	2020	
		Mar.	Feb.	Mar.		Mar.	Feb.	Mar.
	1	2	3	4	5	6	7	8
A. Settlement Systems								
Financial Market Infrastructures (FMIs)								
1 CCIL Operated Systems (1.1 to 1.3)	–	–	2.80	3.14	–	–	10821111	13808922
1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)	–	–	1.17	1.27	–	–	6868007	8427404
1.1.1 Outright	–	–	0.82	0.86	–	–	1209395	1306083
1.1.2 Repo	–	–	0.19	0.23	–	–	2604693	3096901
1.1.3 Tri-party Repo	–	–	0.16	0.19	–	–	3053919	4024420
1.2 Forex Clearing	–	–	1.59	1.82	–	–	3603514	5034489
1.3 Rupee Derivatives @	–	–	0.04	0.04	–	–	349590	347030
B. Payment Systems								
I Financial Market Infrastructures (FMIs)	–	–	–	–	–	–	–	–
1 Credit Transfers - RTGS (1.1 to 1.2)	–	–	133.16	118.95	–	–	8990097	12047221
1.1 Customer Transactions	–	–	131.07	117.06	–	–	7718135	10368946
1.2 Interbank Transactions	–	–	2.08	1.89	–	–	1271962	1678274
II Retail								
2 Credit Transfers - Retail (2.1 to 2.7)	–	–	20409.50	19743.26	–	–	2396212	2831185
2.1 AePS (Fund Transfers) @	–	–	0.74	0.66	–	–	40	36
2.2 APBS $	–	–	1400.59	1247.79	–	–	8889	7951
2.3 ECS Cr	–	–	0.00	0.00	–	–	–	–
2.4 IMPS	–	–	2477.98	2168.23	–	–	214566	201962
2.5 NACH Cr $	–	–	789.68	1234.43	–	–	79707	131109
2.6 NEFT	–	–	2483.57	2623.70	–	–	1870494	2283665
2.7 UPI @	–	–	13256.93	12468.45	–	–	222517	206462
2.7.1 of which USSD @	–	–	0.70	0.68	–	–	12	12
3 Debit Transfers and Direct Debits (3.1 to 3.4)	–	–	825.70	818.06	–	–	73478	76126
3.1 BHIM Aadhaar Pay @	–	–	9.67	8.88	–	–	149	141
3.2 ECS Dr	–	–	0.00	0.00	–	–	–	–
3.3 NACH Dr $	–	–	789.31	791.30	–	–	73277	75952
3.4 NETC (linked to bank account) @	–	–	26.72	17.88	–	–	53	33
4 Card Payments (4.1 to 4.2)	–	–	6263.55	5354.85	–	–	142294	115877
4.1 Credit Cards (4.1.1 to 4.1.2)	–	–	1882.94	1638.57	–	–	62148	50574
4.1.1 PoS based $	–	–	1072.50	900.64	–	–	33446	26656
4.1.2 Others $	–	–	810.44	737.93	–	–	28701	23918
4.2 Debit Cards (4.2.1 to 4.2.1)	–	–	4380.60	3716.28	–	–	80146	65303
4.2.1 PoS based $	–	–	2455.92	1925.25	–	–	36258	27238
4.2.2 Others $	–	–	1924.69	1791.03	–	–	43888	38065
5 Prepaid Payment Instruments (5.1 to 5.2)	–	–	5026.37	3982.85	–	–	17296	15341
5.1 Wallets	–	–	3782.82	3178.60	–	–	14461	13111
5.2 Cards (5.2.1 to 5.2.2)	–	–	1243.55	804.25	–	–	2836	2229
5.2.1 PoS based $	–	–	115.30	81.02	–	–	1116	1021
5.2.2 Others $	–	–	1128.25	723.23	–	–	1719	1209
6 Paper-based Instruments (6.1 to 6.2)	–	–	884.95	710.34	–	–	659458	565315
6.1 CTS (NPCI Managed)	–	–	884.58	710.01	–	–	659157	565046
6.2 Others	–	–	0.37	0.33	–	–	301	269
Total - Retail Payments (2+3+4+5+6)	–	–	33410.06	30609.36	–	–	3288739	3603844
Total Payments (1+2+3+4+5+6)	–	–	33543.21	30728.31	–	–	12278836	15651064
Total Digital Payments (1+2+3+4+5)	–	–	32658.27	30017.97	–	–	11619377	15085750

PART II - Payment Modes and Channels

System	Volume (Lakh)				Value (₹ Crore)			
		2019	2020			2019	2020	
		Mar.	Feb.	Mar.		Mar.	Feb.	Mar.
	1	2	3	4	5	6	7	8
A. Other Payment Channels	–				–			
1 Mobile Payments (mobile app based) (1.1 to 1.2)	–	–	14284.28	13830.33	–	–	525845	520199
1.1 Intra-bank $	–	–	1304.52	1287.27	–	–	108332	109624
1.2 Inter-bank $	–	–	12979.75	12543.06	–	–	417513	410575
2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)	–	–	2837.88	2530.82	–	–	2881819	3420971
2.1 Intra-bank @	–	–	630.85	584.09	–	–	1313016	1595574
2.2 Inter-bank @	–	–	2207.03	1946.73	–	–	1568803	1825397
B. ATMs	–				–			
3 Cash Withdrawal at ATMs $ (3.1 to 3.3)	–	–	6223.11	5471.63	–	–	286463	251075
3.1 Using Credit Cards $	–	–	7.97	7.54	–	–	379	360
3.2 Using Debit Cards $	–	–	6187.18	5441.22	–	–	285110	249930
3.3 Using Pre-paid Cards $	–	–	27.96	22.87	–	–	974	785
4 Cash Withdrawal at PoS $ (4.1 to 4.2)	–	–	65.97	33.69	–	–	195	110
4.1 Using Debit Cards $	–	–	59.42	30.55	–	–	132	105
4.2 Using Pre-paid Cards $	–	–	6.55	3.14	–	–	63	5
5 Cash Withrawal at Micro ATMs @	–	–	386.44	344.98	–	–	11201	9993
5.1 AePS @	–	–	386.44	344.98	–	–	11201	9993

PART III - Payment Infrastructures (Lakh)

System		2019	2020	
		Mar.	Feb.	Mar.
	1	2	3	4
Payment System Infrastructures	–			
1 Number of Cards (1.1 to 1.2)	–	–	8801.81	8863.07
1.1 Credit Cards	–	–	571.58	577.45
1.2 Debit Cards	–	–	8230.23	8285.62
2 Number of PPIs @ (2.1 to 2.2)	–	–	18000.38	18251.64
2.1 Wallets @	–	–	16809.60	17032.85
2.2 Cards @	–	–	1190.78	1218.79
3 Number of ATMs (3.1 to 3.2)	–	–	2.34	2.34
3.1 Bank owned ATMs $	–	–	2.11	2.11
3.2 White Label ATMs $	–	–	0.23	0.23
4 Number of Micro ATMs @	–	–	2.64	2.71
5 Number of PoS Terminals	–	–	50.99	51.39
6 Bharat QR @	–	–	18.96	20.27

@: New inclusion w.e.f. November 2019
$: Inclusion separately initiated from November 2019 - would have been part of other items hitherto.

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

Occasional Series

No. 44: Small Savings

(₹ Crore)

Scheme		2018-19	2018	2019		
			Dec.	Oct.	Nov.	Dec.
		1	2	3	4	5
1 Small Savings	**Receipts**	**115714**	**10415**	**9717**	**14106**	**15814**
	Outstanding	**918459**	**880698**	**985145**	**999208**	**1015010**
1.1 Total Deposits	**Receipts**	**91108**	**8579**	**7874**	**10876**	**12117**
	Outstanding	**618418**	**593432**	**670819**	**681695**	**693812**
1.1.1 Post Office Saving Bank Deposits	Receipts	31037	2915	1704	1881	3455
	Outstanding	140247	130185	145126	147007	150462
1.1.2 MGNREG	Receipts					
	Outstanding					
1.1.3 National Saving Scheme, 1987	Receipts	-31	-30	-12	80	-31
	Outstanding	3107	2917	2935	3015	2984
1.1.4 National Saving Scheme, 1992	Receipts	53	-1	-5	823	-827
	Outstanding	10	-12	-14	809	-18
1.1.5 Monthly Income Scheme	Receipts	10967	1036	1086	1584	1753
	Outstanding	192658	189759	200123	201707	203460
1.1.6 Senior Citizen Scheme 2004	Receipts	13990	1232	1408	1706	2070
	Outstanding	55708	52072	65688	67394	69464
1.1.7 Post Office Time Deposits	Receipts	25000	2317	2606	3625	4296
	Outstanding	124292	116728	144701	148326	152622
1.1.7.1 1 year Time Deposits	Outstanding	71534	67662	82377	84270	86344
1.1.7.2 2 year Time Deposits	Outstanding	5910	5617	6531	6637	6749
1.1.7.3 3 year Time Deposits	Outstanding	6901	6860	7193	7262	7328
1.1.7.4 5 year Time Deposits	Outstanding	39947	36589	48600	50157	52201
1.1.8 Post Office Recurring Deposits	Receipts	10081	1110	1087	1177	1401
	Outstanding	102401	101799	112264	113441	114842
1.1.9 Post Office Cumulative Time Deposits	Receipts	11	0	0	0	0
	Outstanding	-26	-37	-25	-25	-25
1.1.10 Other Deposits	Receipts	0	0	0	0	0
	Outstanding	21	21	21	21	21
1.2 Saving Certificates	**Receipts**	**16067**	**1500**	**1634**	**2580**	**3326**
	Outstanding	**221517**	**215815**	**235049**	**237586**	**240900**
1.2.1 National Savings Certificate VIII issue	Receipts	11318	1124	905	1717	2272
	Outstanding	98492	92374	106061	107778	110050
1.2.2 Indira Vikas Patras	Receipts	334	5	-1	0	0
	Outstanding	263	288	-289	-289	-289
1.2.3 Kisan Vikas Patras	Receipts	-18678	-1895	-822	-1090	-971
	Outstanding	19303	24496	8843	7753	6782
1.2.4 Kisan Vikas Patras - 2014	Receipts	23018	2259	1552	1953	2025
	Outstanding	93630	87154	109295	111248	113273
1.2.5 National Saving Certificate VI issue	Receipts	93	7	0	0	0
	Outstanding	2	-74	-179	-179	-179
1.2.6 National Saving Certificate VII issue	Receipts	-18	0	0	0	0
	Outstanding	-80	-81	-82	-82	-82
1.2.7 Other Certificates	Outstanding	9907	11658	11400	11357	11345
1.3 Public Provident Fund	**Receipts**	**8539**	**336**	**209**	**650**	**371**
	Outstanding	**78524**	**71451**	**79277**	**79927**	**80298**

Source: Accountant General, Post and Telegraphs.

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

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

(Per cent)

Central Government Dated Securities					
Category	2018	2019			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(A) Total (in ₹. Crore)	**5758103**	**5921026**	**6072243**	**6314426**	**6512659**
1 Commercial Banks	40.51	40.28	39.05	39.66	39.05
2 Non-Bank PDs	0.33	0.31	0.36	0.42	0.39
3 Insurance Companies	24.57	24.34	24.88	24.86	24.90
4 Mutual Funds	0.64	0.35	0.64	0.77	1.53
5 Co-operative Banks	2.38	2.29	2.17	2.01	1.97
6 Financial Institutions	1.01	1.05	1.05	1.15	1.14
7 Corporates	1.05	0.97	0.99	0.92	0.84
8 Foreign Portfolio Investors	3.60	3.22	3.27	3.31	3.33
9 Provident Funds	5.54	5.47	5.35	4.87	4.93
10 RBI	13.81	15.27	15.67	14.99	14.72
11. Others	6.55	6.46	6.57	7.05	7.23
11.1 State Governments	1.97	2.00	2.02	1.99	1.97

State Governments Securities					
Category	2018	2019			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(B) Total (in ₹. Crore)	**2669393**	**2777229**	**2826935**	**2905169**	**3047353**
1 Commercial Banks	34.00	33.87	32.57	32.53	32.46
2 Non-Bank PDs	0.60	0.58	0.81	0.72	0.64
3 Insurance Companies	33.90	33.04	33.94	33.39	32.50
4 Mutual Funds	1.23	1.20	1.24	1.12	1.20
5 Co-operative Banks	4.67	4.55	4.65	4.24	4.16
6 Financial Institutions	0.37	0.42	0.44	0.33	0.31
7 Corporates	0.22	0.29	0.32	0.28	0.31
8 Foreign Portfolio Investors	0.09	0.09	0.08	0.05	0.04
9 Provident Funds	21.29	22.15	21.88	22.36	23.66
10 RBI	0.00	0.00	0.00	0.00	0.00
11. Others	3.64	3.81	4.08	4.98	4.73
11.1 State Governments	0.07	0.11	0.14	0.16	0.17

Treasury Bills					
Category	2018	2019			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(C) Total (in ₹. Crore)	**529826**	**412704**	**524618**	**538041**	**514588**
1 Commercial Banks	53.76	57.56	53.60	50.81	45.19
2 Non-Bank PDs	2.06	2.68	1.85	1.92	2.07
3 Insurance Companies	4.74	6.61	5.13	5.55	5.76
4 Mutual Funds	5.65	2.78	13.00	14.08	20.42
5 Co-operative Banks	1.21	2.48	2.54	2.55	2.07
6 Financial Institutions	1.88	2.49	2.14	1.82	2.12
7 Corporates	1.86	2.23	1.67	1.57	1.66
8 Foreign Portfolio Investors	0.00	0.00	0.00	0.00	0.00
9 Provident Funds	0.02	0.08	0.07	0.01	0.01
10 RBI	0.00	0.00	0.00	0.00	0.00
11. Others	28.81	23.10	19.99	21.70	20.70
11.1 State Governments	24.04	17.91	15.59	17.91	16.36

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

(₹ Crore)

Item	2014-15	2015-16	2016-17	2017-18	2018-19 RE	2019-20 BE
	1	2	3	4	5	6
1 Total Disbursements	**3285210**	**3760611**	**4265969**	**4515946**	**5516932**	**6071777**
1.1 Developmental	1872062	2201287	2537905	2635110	3344948	3660857
1.1.1 Revenue	1483018	1668250	1878417	2029044	2543965	2830634
1.1.2 Capital	332262	412069	501213	519356	694352	732102
1.1.3 Loans	56782	120968	158275	86710	106630	98121
1.2 Non-Developmental	1366769	1510810	1672646	1812455	2089516	2315637
1.2.1 Revenue	1269520	1379727	1555239	1741432	2002766	2204742
1.2.1.1 Interest Payments	584542	648091	724448	814757	901783	1009776
1.2.2 Capital	94687	127306	115775	69370	85375	109030
1.2.3 Loans	2563	3777	1632	1654	1375	1865
1.3 Others	46379	48514	55417	68381	82469	95284
2 Total Receipts	**3189737**	**3778049**	**4288432**	**4528422**	**5364245**	**6003162**
2.1 Revenue Receipts	2387693	2748374	3132201	3376416	4205473	4653758
2.1.1 Tax Receipts	2020728	2297101	2622145	2978134	3512454	3910428
2.1.1.1 Taxes on commodities and services	1212348	1440952	1652377	1853859	2186529	2399337
2.1.1.2 Taxes on Income and Property	805176	852271	965622	1121189	1323113	1506912
2.1.1.3 Taxes of Union Territories (Without Legislature)	3204	3878	4146	3086	2812	4179
2.1.2 Non-Tax Receipts	366965	451272	510056	398282	693019	743330
2.1.2.1 Interest Receipts	39622	35779	33220	34224	36739	33619
2.2 Non-debt Capital Receipts	60955	59827	69063	142433	136636	170056
2.2.1 Recovery of Loans & Advances	22072	16561	20942	42213	56398	63131
2.2.2 Disinvestment proceeds	38883	43266	48122	100219	80238	106926
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	**836563**	**952410**	**1064704**	**997097**	**1174823**	**1247962**
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	823630	939662	1046708	989167	1179716	1250914
3A.1.1 Net Bank Credit to Government	-37476	231090	617123	144792	386389	...
3A.1.1.1 Net RBI Credit to Government	-334185	60472	195816	-144847	325987	...
3A.1.2 Non-Bank Credit to Government	861106	708572	429585	844375	793327	-----
3A.2 External Financing	12933	12748	17997	7931	-4893	-2952
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	823630	939662	1046708	989167	1179716	1250914
3B.1.1 Market Borrowings (net)	664058	673298	689821	794856	831554	959294
3B.1.2 Small Savings (net)	-56580	-78515	-105038	-163222	-217165	-208528
3B.1.3 State Provident Funds (net)	34339	35261	45688	42351	42703	42482
3B.1.4 Reserve Funds	5109	-3322	-6436	18423	-14577	-871
3B.1.5 Deposits and Advances	27545	13470	17792	25138	16011	13706
3B.1.6 Cash Balances	95474	-17438	-22463	-12476	152688	68615
3B.1.7 Others	53684	316908	427343	284095	368504	376216
3B.2 External Financing	12933	12748	17997	7931	-4893	-2952
4 Total Disbursements as per cent of GDP	*26.3*	*27.3*	*27.8*	*26.4*	*29.0*	*28.8*
5 Total Receipts as per cent of GDP	*25.6*	*27.4*	*27.9*	*26.5*	*28.2*	*28.5*
6 Revenue Receipts as per cent of GDP	*19.2*	*20.0*	*20.4*	*19.8*	*22.1*	*22.1*
7 Tax Receipts as per cent of GDP	*16.2*	*16.7*	*17.1*	*17.4*	*18.5*	*18.5*
8 Gross Fiscal Deficit as per cent of GDP	*6.7*	*6.9*	*6.9*	*5.8*	*6.2*	*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

(₹ Crore)

Sr. No	State/Union Territory	During March-2020					
		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	1710	19	1140	18	571	7
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	-	-	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	-	-	-	-	-	-
6	Goa	48	12	-	-	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	-	-	-	-	-	-
9	Himachal Pradesh	-	-	-	-	-	-
10	Jammu & Kashmir	-	-	667	25	362	14
11	Jharkhand	-	-	-	-	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	337	30	778	29	438	11
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	-	-	-	-	-	-
16	Manipur	104	14	94	12	18	4
17	Meghalaya	-	-	-	-	-	-
18	Mizoram	-	-	-	-	-	-
19	Nagaland	288	31	39	1	-	-
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	211	20	264	12	-	-
23	Rajasthan	-	-	-	-	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	726	9	-	-	-	-
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	597	27	235	14	10	1
29	West Bengal	968	1	-	-	-	-

Source: Reserve Bank of India.

No. 48: Investments by State Governments

(₹ Crore)

Sr. No	State/Union Territory	As on end of March 2020			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	8059	791	--	-
2	Arunachal Pradesh	1344	2	--	-
3	Assam	4301	53	--	-
4	Bihar	7683	--	--	-
5	Chhattisgarh	4300	--	1	5000
6	Goa	578	291	--	-
7	Gujarat	13277	465	--	-
8	Haryana	2022	1166	--	-
9	Himachal Pradesh	--	--	--	-
10	Jammu & Kashmir	--	--	--	-
11	Jharkhand	--	--	--	-
12	Karnataka	4110	--	--	-
13	Kerala	2090	--	--	-
14	Madhya Pradesh	--	891	--	-
15	Maharashtra	39948	415	--	-
16	Manipur	367	97	--	-
17	Meghalaya	644	35	9	-
18	Mizoram	536	38	--	-
19	Nagaland	1595	32	--	-
20	Odisha	13004	1412	82	17370
21	Puducherry	285	--	--	700
22	Punjab	234	--	8	-
23	Rajasthan	--	--	129	1800
24	Tamil Nadu	6437	--	40	8634
25	Telangana	5500	1198	--	-
26	Tripura	319	5	--	-
27	Uttar Pradesh	--	--	180	-
28	Uttarakhand	3069	77	--	-
29	West Bengal	10730	519	214	-
	Total	**130431**	**7486**	**662**	**33504**

No. 49: Market Borrowings of State Governments

(₹ Crore)

Sr. No.	State	2017-18		2018-19		2019-20						Total amount raised, so far in 2019-20	
						January		February		March			
		Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross	Net
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Andhra Pradesh	22800	18922	30200	23824	5000	4708	3928	3345	5020	4213	42915	33944
2	Arunachal Pradesh	888	703	719	693	-	-79	87	87	807	807	1366	1287
3	Assam	7760	6797	10595	8089	1500	1500	1000	-910	2306	2306	12406	10496
4	Bihar	10000	8908	14300	10903	4000	4000	1959	1959	5000	5000	25601	22601
5	Chhattisgarh	8100	8100	12900	12900	2000	2000	-	-	5680	5680	11680	10980
6	Goa	1800	1400	2350	1850	381	381	175	175	344	244	2600	2000
7	Gujarat	24000	15785	36971	27457	8000	6500	2500	1700	5500	5500	38900	28600
8	Haryana	16640	15840	21265	17970	2500	2500	1500	1100	4176	3476	24677	20677
9	Himachal Pradesh	4600	2551	4210	2108	1500	1200	1500	1500	1580	660	6580	4460
10	Jammu & Kashmir	6200	3974	6684	4927	600	600	600	57	1677	1650	7869	6760
11	Jharkhand	6000	4807	5509	4023	-	-	1000	1000	4500	4500	7500	5656
12	Karnataka	22098	17348	39600	31383	7000	7000	6000	6000	6400	5150	48500	42500
13	Kerala	20500	16203	19500	14784	920	920	1000	-480	1471	1471	18073	12617
14	Madhya Pradesh	15000	13125	20496	14971	3000	1447	3000	3000	7371	6223	22371	16550
15	Maharashtra	45000	36480	20869	3117	6000	5000	11998	9498	5000	3000	48498	32998
16	Manipur	525	278	970	667	-	-	400	86	554	554	1757	1254
17	Meghalaya	1116	920	1122	863	-	-50	150	150	449	449	1344	1070
18	Mizoram	424	277	0	-123	-	-	90	90	360	306	900	745
19	Nagaland	1135	766	822	355	-	-	150	22	200	200	1000	423
20	Odisha	8438	8438	5500	4500	500	500	1000	1000	2000	1000	7500	6500
21	Puducherry	825	488	825	475	100	100	100	100	170	170	970	470
22	Punjab	17470	13349	22115	17053	2800	2600	1300	1300	3400	3400	27355	18470
23	Rajasthan	24914	16777	33178	20186	3750	2750	2500	2326	6511	2361	39092	24686
24	Sikkim	995	745	1088	795	142	142	-	-188	216	76	809	481
25	Tamil Nadu	40965	36023	43125	32278	8000	6000	5500	5500	3535	2136	62425	49826
26	Telangana	24600	21828	26740	22183	3000	2792	2000	1583	8985	8409	37109	30697
27	Tripura	1137	1137	1543	1387	400	400	470	370	378	378	2928	2578
28	Uttar Pradesh	41600	37178	46000	33307	7500	7500	7750	4679	17703	15675	67453	50494
29	Uttarakhand	6660	5830	6300	5289	-	-	750	750	2000	2000	5100	4500
30	West Bengal	36911	25304	42828	30431	6000	6000	7250	6450	12982	12982	59242	43132
	Grand Total	419100	340281	478323	348643	74593	66411	65657	52250	116275	99976	634521	487454

- : Nil.

Source : Reserve Bank of India.

Explanatory Notes to the Current Statistics

Table No. 1

1.2& 6: Annual data are average of months.
3.5 & 3.7: Relate to ratios of increments over financial year so far.
4.1 to 4.4, 4.8,4.9 &5: Relate to the last friday of the month/financial year.
4.5, 4.6 & 4.7: Relate to five major banks on the last Friday of the month/financial year.
4.10 to 4.12: Relate to the last auction day of the month/financial year.
4.13: Relate to last day of the month/ financial year
7.1&7.2: Relate to Foreign trade in US Dollar.

Table No. 2

2.1.2: Include paid-up capital, reserve fund and Long-Term Operations Funds.
2.2.2: Include cash, fixed deposits and short-term securities/bonds, e.g., issued by IIFC (UK).

Table No. 4

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

Table No. 5

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

Table No. 6

For scheduled banks, March-end data pertain to the last reporting Friday.
2.2: Exclude balances held in IMF Account No.1, RBI employees' provident fund, pension fund, gratuity and superannuation fund.

Table Nos. 7 & 11

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

Table No. 8

NM_2 and NM_3 do not include FCNR (B) deposits.
2.4: Consist of paid-up capital and reserves.
2.5: includes other demand and time liabilities of the banking system.

Table No. 9

Financial institutions comprise EXIM Bank, SIDBI, NABARD and NHB.
L_1 and L_2 are compiled monthly and L_3 quarterly.
Wherever data are not available, the last available data have been repeated.

Table No. 13

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

Table No. 14

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

Table No. 15 & 16

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

Export credit under priority sector relates to foreign banks only.

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

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

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

Table No. 17

2.1.1: Exclude reserve fund maintained by co-operative societies with State Co-operative Banks
2.1.2: Exclude borrowings from RBI, SBI, IDBI, NABARD, notified banks and State Governments.
4: Include borrowings from IDBI and NABARD.

Table No. 24

Primary Dealers (PDs) include banks undertaking PD business.

Table No. 30

Exclude private placement and offer for sale.
1: Exclude bonus shares.
2: Include cumulative convertible preference shares and equi-preference shares.

Table No. 32

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

Table No. 34

1.1.1.1.2 & 1.1.1.1.1.4: Estimates.
1.1.1.2: Estimates for latest months.
'Other capital' pertains to debt transactions between parent and subsidiaries/branches of FDI enterprises.
Data may not tally with the BoP data due to lag in reporting.

Table No. 35

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

Table No. 36

Increase in indices indicates appreciation of rupee and vice versa. For 6-Currency index, base year 2016-17 is a moving one, which gets updated every year. REER figures are based on Consumer Price Index (combined). Methodological details are available in December 2005 and April 2014 issues of the Bulletin.

Table No. 37

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

Table Nos. 38, 39, 40 & 41

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

Table No. 43

Part I-A. Settlement systems

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

Part I-B. Payments systems

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

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

5: Available from December 2010.

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

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

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

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

Part II-A. Other payment channels

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

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

Part II-B. ATMs

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

Part III. Payment systems infrastructure

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

Table No. 45

(-): represents nil or negligible

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

State Government Securities include special bonds issued under Ujwal DISCOM Assurance Yojana (UDAY) scheme.

Bank PDs are clubbed under Commercial Banks. However, they form very small fraction of total outstanding securities.

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

Table No. 46

GDP data is based on 2011-12 base. GDP data from 2018-19 pertains to the Provisional Estimates of National Income released by Central Statistics Office on 31st May 2019. GDP for 2019-20 is from Union Budget 2019-20.
Data for 2017-18 onwards also includes NCT of Delhi and Puducherry.
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.
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, loans from financial institutions, insurance and pension funds, remittances, cash balance investment account.

Table No. 47

SDF is availed by State Governments against the collateral of Consolidated Sinking Fund (CSF), Guarantee Redemption Fund (GRF) & Auction Treasury Bills (ATBs) balances and other investments in government securities.
WMA is advance by Reserve Bank of India to State Governments for meeting temporary cash mismatches.
OD is advanced to State Governments beyond their WMA limits.
Average amount Availed is the total accommodation (SDF/WMA/OD) availed divided by number of days for which accommodation was extended during the month.
- : Nil.

Table No. 48

CSF and GRF are reserve funds maintained by some State Governments with the Reserve Bank of India.
ATBs include Treasury bills of 91 days, 182 days and 364 days invested by State Governments in the primary market.
--: Not Applicable (not a member of the scheme).

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

Time series data of 'Current Statistics' is available at https://dbie.rbi.org.in.
Detailed explanatory notes are available in the relevant press releases issued by RBI and other publications/releases of the Bank such as **Handbook of Statistics on the Indian Economy**.

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

Notes

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

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