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Governor's Statement

*Governor's Statement**

Shaktikanta Das

The Monetary Policy Committee (MPC) met on 2nd, 3rd and 4th December, 2020. It reviewed current macroeconomic and financial developments, both domestic and global, and the evolving outlook for the Indian economy. At the end of its deliberations, the MPC voted unanimously to leave the policy repo rate unchanged at 4 per cent. It also decided to continue with the accommodative stance of monetary policy as long as necessary – at least through the current financial year and into the next year – to revive growth on a durable basis and mitigate the impact of COVID-19, while ensuring that inflation remains within the target going forward. The Marginal Standing Facility (MSF) rate and the Bank rate remain unchanged at 4.25 per cent. The reverse repo rate stands unchanged at 3.35 per cent.

I wish to take this opportunity to express my appreciation of all the Committee members for their valuable insights and guidance that contributed to the monetary policy decision taken today. I would also like to thank our teams in the RBI for their analytical and intellectual support, and logistical assistance.

Let me begin by setting out the thinking that went into the MPC's decision today, and its rationale. The MPC was of the view that inflation is likely to remain elevated, with some relief in the winter months from prices of perishables and bumper kharif arrivals. This constrains monetary policy at the current juncture from using the space available to act in support of growth. At the same time, the signs of recovery are far from being broad-based and are dependent on sustained policy support. A small window is available for proactive supply management strategies to break the inflation spiral being fuelled by supply chain disruptions, excessive margins and indirect taxes. Further efforts are necessary to mitigate supply-side driven inflation pressures. The MPC will monitor closely all threats to price stability to anchor broader macroeconomic and financial stability. Accordingly, the MPC decided today to maintain status quo on the policy rate and continue with the accommodative stance as long as necessary – at least during the current financial year and into the next financial year – to revive growth on a durable basis and mitigate the impact of COVID-19 on the economy, while ensuing that inflation remains within the target going forward.

The year 2020 has been extremely challenging. It has tested and stretched our capabilities and even our inner reserves of strength, patience and fortitude. As the year draws to a close, it would be appropriate to review our actions and outcomes as we battled against the pandemic. What stood out, in my view, in this all-out endeavour, was our determination to fight and overcome every trial that was flung at us. I am reminded here of the words of Mahatma Gandhi and I quote: "Strength ..... comes from an indomitable will[1]." Drawing lessons therefrom, I shall try to set out our vision for the way forward.

2020: A Year to Remember

When the definitive history of this pandemic period is written up, the year 2020 will be recorded as a defining year in the history of modern civilisation, marked by the Great Pandemic, comparable in its scale to the Spanish Flu of 1918, and exceeding the economic losses of the Great Depression of the 1930s. That COVID-19 broke out even as the world was gripped by a synchronised slowdown in activity made the agony even more excruciating. Alongside this human and economic tragedy, history will also record the unprecedented response by central banks and governments, healthcare systems and personnel,

* Governor's Statement - December 4, 2020

civil society organisations and above all, the common people.

Together, we have managed to contain human losses, ensured that financial systems and markets functioned normally, kept finance available and flowing, and reached out to the most vulnerable. The result was that near-term financial stability risks have been contained. Economic contractions have started to ease, portfolio flows into emerging markets have recovered and hard currency bond issuances have strengthened for those with stronger credit ratings.

Throughout this period, the Reserve Bank acted pre-emptively to face head-on the challenges posed by the virus and manage the fallout of the pandemic on the Indian economy. Our overall endeavour is that going forward, output and employment losses get quickly recouped in an environment of macroeconomic and financial stability.

With the preservation of financial stability and depositors' interest being uppermost in our agenda, we could swiftly resolve the situation at two scheduled commercial banks. We remain strongly committed to preserve the stability of the financial sector and will do whatever is necessary on this front. While we are constantly focused on strengthening the regulations and deepening our supervision, financial sector entities like banks and NBFCs should also give highest priority to quality of governance, risk management and internal controls. They are the first line of defence in matters relating to financial sector stability.

The Reserve Bank's role as the debt manager and the banker to the government was tested to the hilt in 2020, marked by the highest ever level of market borrowing. Our policies have resulted in the lowest weighted average cost of borrowing in 16 years and the highest weighted average maturity of the stock of public debt on record. The weighted borrowing cost for the centre stands at a new low of 5.82 per cent as on December 1 even with additional borrowings for state governments as against 6.88 per cent during the corresponding period of last year. The government borrowings programme – both centre and the states – has progressed smoothly so far in the year and I would like to reiterate what I said in October - the importance of cooperative solutions for orderly market movements. We need to be competitive and not combative.

Financial Market Outlook

The measures taken by the Reserve Bank over the year gone by have also resulted in a significant moderation in the structure of interest rates across the spectrum, narrowing of risk spreads, and a record issuance of corporate bonds. The spread of AAA-rated 3-year corporate bond yields over G-Sec yields of corresponding maturity fell from 60 bps on October 8 to 17 bps on November 27, 2020. The spreads on lower rated corporate bonds also moderated significantly during the same period: by 34 bps each for AA-rated 3-year bonds and BBB- (BBB minus) rated 3-year bonds. The yield on AAA-rated 5-year corporate bonds declined to 5.59 per cent on November 27, 2020 from 5.93 per cent on October 8, 2020. Corporate bond spreads have, in fact, narrowed to pre-pandemic levels across the term structure. Financial markets have been working in an orderly fashion. The easing of financing conditions is, in fact, preparing the ground for strengthening the nascent signs of recovery that have become visible in the second half of 2020-21.

These developments attest to the efficacy of the Reserve Bank's liquidity management measures not just in lowering yields and borrowing costs but also in building positive market sentiment as well as confidence in the assurances given by the RBI in October and actions thereafter to anchor that guidance. Overall bond market conditions have evolved in an orderly manner and engendered congenial conditions for other segments of financial markets that price financial instruments off the G-Sec yield curve. Debt management operations, monetary

operations and market expectations are in harmony and share a common outlook. This augurs well for financial stability. I take this opportunity to commend market participants for responsible behaviour and for contributing significantly to producing these positive outcomes. The Reserve Bank, on its part, stands ready to undertake further measures as necessary to assure market participants of access to liquidity and easy financing conditions.

In the external front, the hardening of yields in the US reflects the lift from 'reflation trade'. Prospects of political stability and expectations of fiscal stimulus have churned up risk appetite, causing investors to exit the safe-haven of US treasuries and search for returns. As a consequence, surges of capital flows have flooded into India. The Reserve Bank has been taking measures for dampening volatility and enabling orderly evolution of the exchange rate in consonance with underlying domestic fundamentals. Mindful of the consequences of these actions for domestic liquidity and inflation, the injections of liquidity through forex interventions are being sterilised by absorptions through the reverse repo.

We will continue to respond to global spillovers in order to secure domestic stability with our liquidity management operations. The various instruments at our command will be used at the appropriate time, calibrating them to ensure that ample liquidity is available to the system. Instruments like OMO purchases, operation twists and reverse repos will continue to be used. Our paramount objective is to support growth while ensuring that financial stability is maintained and preserved at all times.

Assessment of Inflation and Growth: The Outlook

Let me now set out the MPC's assessment of underlying inflation dynamics and the outlook. CPI inflation rose sharply to 7.3 per cent in September and further to 7.6 per cent in October 2020, with some evidence that price pressures are spreading. The outlook for inflation has turned adverse relative to expectations in the last two months. While cereal prices may continue to soften with the bumper kharif harvest arrivals and vegetable prices may ease with the winter crop, other food prices are likely to persist at elevated levels. Cost-push pressures continue to impinge on core inflation, which could remain sticky. Taking into consideration all these factors, CPI inflation is projected at 6.8 per cent for Q3:2020-21, 5.8 per cent for Q4:2020-21; and 5.2 to 4.6 per cent in H1:2021-22, with risks broadly balanced.

Recovery and Beyond

Against this backdrop, we must turn our attention to nurturing the recovery beyond the meeting of pent-up demand and focus on setting it on a firm trajectory of sustained, high quality growth. Data that have become available for Q3:2020-21 confirm that the economy is recuperating faster than anticipated and more sectors are joining the multi-speed upturn that I had highlighted in my statement in October. The contraction in Q2 in the NSO's end-November preliminary estimates has turned out to be shallower than projected in October.

The manufacturing and services purchasing managers' index (PMI) at 56.3 and 53.7 respectively in November 2020 remain in expansion zone. High frequency indicators of services showed stability and increase in the number of upticks (Annex). The recovery in rural demand is expected to strengthen further, while urban demand is gaining momentum as unlocking spurs activity and employment, especially for labour displaced by COVID-19. These positive impulses are, however, clouded by a possible rise in infections in some parts of the country, prompting some local containment measures. At the same time, the recovery rate has crossed 94 per cent and is rising, with considerable optimism on successes in vaccine trials. Consumer confidence over the year ahead has turned optimistic.

Corporate results for Q2:2020-21 indicate that demand conditions are recovering and profit margins are rising on the back of cost saving on expenses and debt servicing capacity has gone up. Business assessment of manufacturing firms has entered the expansion zone in Q3:2020-21 after remaining in contraction in the last two quarters. Business expectations going forward into Q4:2020-21 are rising.

Turning to the growth outlook, as I stated earlier, the recovery in rural demand is expected to strengthen further, while urban demand is also gaining momentum. Consumers remain optimistic about the outlook and business sentiment of manufacturing firms is gradually improving. Fiscal stimulus is increasingly moving beyond being supportive of consumption and liquidity to supporting growth-generating investment. On the other hand, private investment is still slack and capacity utilisation has not fully recovered. While exports are on an uneven recovery, the prospects have brightened with the progress on the vaccines. Taking these factors into consideration, real GDP growth is projected at (-) 7.5 per cent in 2020-21: (+) 0.1 per cent in Q3:2020-21 and (+) 0.7 per cent in Q4:2020-21; and 21.9 per cent to 6.5 per cent in H1:2021-22, with risks broadly balanced.

Additional Measures

Against this backdrop, the RBI will persevere with its paramount objective of reviving the economy with some additional measures in order to (i) enhance liquidity support to targeted sectors having linkages to other sectors; (ii) deepen financial markets; (iii) conserve capital among banks and NBFCs through regulatory initiatives; (iv) strengthen supervision through strengthening the audit functions; (v) facilitate external trade by improving ease of doing business for exporters; and (vi) upgrade payment system services so as to expand financial inclusion and improve customer service.

(i) Liquidity Measures to Revive Activity

On Tap TLTRO– Extension of Sectors and Synergy with ECLGS 2.0

The on tap targeted long term repo operations announced on 9th October, 2020 will be expanded to cover other stressed sectors in synergy with the credit guarantee available under the Emergency Credit Line Guarantee Scheme (ECLGS 2.0) of the Government. This will encourage banks to extend credit support to stressed sectors at lower cost.

(ii) Deepening Financial Markets

The Regional Rural Banks (RRBs) are currently not permitted to access the liquidity windows of the Reserve Bank as well as the call/notice money market. With a view to expanding participation in money markets and to facilitate better liquidity management, Regional Rural Banks will be allowed to access the Liquidity Adjustment Facility (LAF) and Marginal Standing Facility (MSF) of the RBI; and also the Call/ Notice money market.

With the recent enactment of the legislation for Bilateral Netting of financial contracts providing a fillip to the underdeveloped credit derivatives market in India, it has been decided to review the extant guidelines on Credit Default Swaps (CDS) and issue draft directions for public comments shortly. The revised directions are expected to facilitate the development of credit derivatives market and a liquid and vibrant market for corporate bonds, especially for lower rated issuers.

In the light of evolution in the financial markets and due to various liberalisation measures undertaken in recent period, the comprehensive guidelines on derivatives, issued in 2011, have been reviewed and draft directions are being issued today for public comments. The revised guidelines seek to promote efficient access to derivative markets while ensuring

high standards of governance and conduct in Over The Counter (OTC) derivative business by market makers.

Comprehensive draft directions on call, notice and term money markets, Certificate of Deposits (CDs), commercial papers (CPs) and non-convertible debentures (NCDs) with original maturity of less than one year are being released today for public feedback. The revised directions seek to bring consistency across products in terms of issuers, investors and other participants.

(iii) Regulation

(a) Banks

In response to the COVID-19 pandemic, the Reserve Bank has focused on resolution of stress among borrowers, and facilitating credit flow to the economy, while ensuring financial stability. In continuation of this effort and to help banks conserve capital, while creating room for fresh lending, it has been decided after a review that commercial and co-operative banks will retain the profits and not make any dividend pay-out from the profits pertaining to financial year 2019-20.

Non-Bank Financial Companies (NBFCs)

The growing significance of NBFCs and their interlinkages with different segments in the financial system has made it imperative to enhance the resilience of the sector. Therefore, it has been decided to put in place transparent criteria as per a matrix of parameters for declaration of dividends by different categories of NBFCs. A draft circular containing the proposed criteria and parameters will be released soon for public comments.

Further, the current regulatory regime for the NBFC sector, built on the principle of proportionality, warrants a review. It is felt that a scale-based regulatory approach linked to the systemic risk contribution of NBFCs could be the way forward. As part of the stakeholder consultation process, a discussion paper on this subject will be issued before January 15, 2021 for public comments.

(iv) Supervision

Supervisory focus in improving the governance and assurance functions in supervised entities (SEs) continues to enage the attention of the RBI. In this endeavor, the following measures are being announced today. These pertain to (i) introduction of Risk based Internal Audit (RBIA) in large UCBs and NBFCs and (ii) harmonisation of guidelines on appointment of Statutory Auditors for commercial banks, UCBs and NBFCs to improve the quality of financial reporting. Details on these measures are in part-B of the statement and guidelines on the above will be issued shortly.

(v) Digital Payments Security

In order to significantly improve the ecosystem of digital payment channels with robust security and convenience for users, we propose to issue Reserve Bank of India (Digital Payment Security Controls) Directions for the regulated entities. These directions will contain requirements for robust governance, implementation and monitoring of certain minimum standards on common security controls for channels like internet and mobile banking, card payments, etc. Draft directions in this regard will be issued shortly for public comments.

(vi) Financial Literacy and Education

In order to deepen financial inclusion and protect customers by promoting financial literacy, a community led participatory approach through Centres for Financial Literacy (CFL) was implemented by the RBI through select banks and non-governmental organisations as a pilot project in 2017. It is now proposed to expand the reach of the CFLs from 100 blocks currently to every block in the country in a phased manner by March 2024.

(vii) Grievance Redress Mechanism in Banks

With a view to enhancing the efficacy of the grievance redress mechanism in banks, it has been decided to put in place a comprehensive framework comprising inter alia (i) enhanced disclosures on customer complaints, (ii) monetary disincentives in the form of recovery of cost of redress of complaints, and (iii) undertaking intensive review of grievance redress mechanisms and supervisory action against regulated entities failing to improve their redress mechanisms.

(viii) External Trade Facilitation

The Reserve Bank has announced several measures to enhance export competitiveness, ease of doing business for exporters and minimise procedural delays. Continuing with these efforts, it has been decided to further faciliate external trade by delegating additional powers to Authorised Dealer (AD) banks to (a) regularise cases of direct dispatch of shipping documents by the exporter irrespective of the value of export shipment; (b) write off unrealised export bills without limits in specified circumstances; (c) allow set-off of export receivables against import payables with overseas group/associate companies under certain conditions when both the export and import legs have taken place within the same calendar year; and (d) consider refund of export proceeds without insisting on import of goods which are perishable in nature or had been auctioned/destroyed by port/ customs/health authorities/any other accredited agency in the importing country, subject to production of documentary evidence.

(ix) Payment and Settlement Systems

The RTGS system will soon be made 24x7. With this enablement, it is proposed to reduce settlement and default risk in the system by facilitating settlement of AePS, IMPS, NETC, NFS, RuPay, UPI transactions on all days of the week. This will make the payments ecosystem more efficient.

In order to expand the adoption of digital payments in a safe and secure manner, it is proposed to enhance, at the discretion of the user, the limits for contactless card transactions and e-mandates for recurring transactions through cards (and UPI) from ₹2,000 to ₹5,000 from January 1, 2021.

Conclusion

The growth impulses that have emerged augur well for the revitalization of the Indian economy. Policy stimuli by the Government and the RBI are intended to nurture these growth sprouts to greater strength. Efforts are underway to ensure a calibrated unlocking of the economy, with cognisance and caution about the virus. While we remain vigilant, we must now turn to alleviating the scars left by the pandemic and revive the economy. The horizon has lighted up with the spate of positive news on the vaccines, and a steady rise in recoveries. India's time has come to break free of the fetters of COVID-19 and reconfigure our destiny. We have borne with fortitude and courage the terrible havoc wrought by the pandemic. We have lost lives and loved ones, but not hope, not the conviction that we will overcome and emerge stronger. It is often said that life after COVID will not be the same again, but human endeavour has time and again shown that it is never too late to seek a newer world. We must reach out with a strong will to strive, to seek, to find and not to yield. I am reminded here of a quote attributed to Socrates, "In the face of adversity, we have a choice. We can be bitter, or we can be better". Obviously we will strive to be better.

Stay safe, stay well. Namaskar.

Annex: High Frequency Indicators - as on December 3, 2020 *(Contd.)*

February 2020 = 100

Sr. No.	Indicators	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	**Agriculture / Rural demand**										
	Domestic Sales of tractors*	100	41	15	76	89	101	119	98	84	
	Two wheelers Sales*	100	69	0	20	72	89	100	108	123	
	Three wheelers Sales*	100	64	0	7	29	34	34	38	50	
	Agriculture Export*	100	79	64	88	95	109	101	114	116	
	Fertiliser Sales*	100	80	135	105	93	107	96	94	115	
	Agriculture Credit (Outstanding)	100	100	100	99	100	101	101	103	105	
	MGNREGA work demand (households)	100	93	60	168	201	144	109	109	109	100
2	**Industrial Production**										
	Index of Industrial Production*	100	79	45	67	80	89	88	92		
	IIP: Manufacturing*	100	77	35	63	80	89	88	92		
	IIP: Capital Goods*	100	68	9	40	69	80	83	92		
	IIP: Infrastructure & Construction Goods*	100	75	17	61	78	90	90	92		
	IIP: Consumer Durables Goods*	100	66	5	33	67	81	87	96		
	IIP: Consumer Non-Durables Goods*	100	78	53	91	115	103	98	102		
	Eight Core Industries Index*	100	88	62	76	83	89	87	89	88	
	ECI: Steel*	100	79	21	62	79	94	94	94	92	
	ECI: Cement*	100	73	16	71	82	79	74	83	86	
	Electricity Demand	100	95	82	99	101	108	105	108	106	94
	Production of Automobiles										
	Passenger Vehicles*	100	67	0	11	44	70	83	102	114	
	Two wheelers*	100	77	0	17	58	81	99	112	129	
	Three wheelers*	100	69	0	37	43	41	56	59	71	
	Production of tractors*	100	52	0	37	101	90	95	102	114	
3	**Construction**										
	Steel Consumption*	100	80	19	61	80	103	96	100	106	
	Cement production*	100	73	16	71	82	79	74	83	86	
4	**Transport**										
	Automobiles sales*	100	65	0	19	67	83	94	103	116	
	Passenger vehicles sales*	100	53	0	14	51	74	87	101	111	
	Domestic air passenger traffic*	100	60	0	3	17	17	24	33	38	
	Domestic air cargo*	100	66	8	17	50	57	63	76	82	
	International air cargo*	100	70	25	42	62	70	72	81	81	
	Rail freight traffic*	100	84	65	76	87	90	93	100	101	102
	Port Cargo*	100	92	78	73	84	86	88	94	92	
	Toll Collection: Volume	100	77	9	50	74	79	88	100	111	113
	Petroleum consumption	100	81	50	77	86	85	78	89	93	
5	**Domestic trade**										
	GST E-way bill	100	71	15	45	76	85	86	100	112	97
	GST revenue	100	93	31	59	86	83	82	91	100	100

Annex: High Frequency Indicators - as on December 3, 2020 *(Concld.)*											
Sr. No.	**Indicators**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**
6	**Hospitality and tourism**										
	Foreign tourist arrivals	100	32	0	0	0	0	0	0		
7	**External Trade**										
	Merchandise Exports	100	77	37	69	79	85	82	99	89	84
	Merchandise Imports	100	83	46	59	56	76	79	80	89	88
	Non-Oil Non-Gold Imports	100	82	50	75	63	81	78	96	103	101
	Services Exports	100	102	93	95	96	96	93	98		
	Services Imports	100	100	84	90	90	91	87	92		
8	**Payment and Settlements Indicators (Volume)**										
	RTGS	100	89	41	68	90	94	88	98	104	99
9	**Monetary, Banking and financial aggregates**										
	Credit outstanding	100	103	102	101	102	102	101	102	102	103
	Bank Deposits	100	102	103	105	104	106	106	107	107	108
	Life insurance first year premium	100	137	36	74	156	124	146	137	123	
	Non-life insurance premium	100	113	0	0	100	122	126	165	114	
	M3	100	102	103	105	105	107	107	108	108	109
	Reserve Money	100	102	102	105	107	107	107	107	109	111
	CP: Monthly Outstanding	100	86	104	106	98	94	93	91	95	
	CD: Monthly Outstanding	100	93	97	86	65	56	49	41	42	
	FPI Net (US$ mn)	1271	-15924	-1961	-973	3441	451	6662	-157	2974	8458
	MF Investment - Equity (INR crore)	9863	30131	-7966	6523	-502	-9195	-8400	-4134	-14492	-22665
	MF Investment - Debt (INR crore)	18026	-16190	-9795	10699	41365	31898	24494	17005	30996	13129
	Corporate Bond Issuance (INR crores)	80555	75734	54741	84871	70536	48122	58419	64389	62631	
10	**PMI**										
	PMI: Manufacturing (>50 indicates growth over previous month)	54.5	51.8	27.4	30.8	47.2	46	52	56.8	58.9	56.3
	PMI: Services (>50 indicates growth over previous month)	57.5	49.3	5.4	12.6	33.7	34.2	41.8	49.8	54.1	53.7
	PMI: Composite (>50 indicates growth since previous month)	57.6	50.6	7.2	14.8	37.8	37.2	46	54.6	58.0	56.3
11	**Employment**										
	CMIE Unemployment rate (%)	7.8	8.8	23.5	21.7	10.2	7.4	8.4	6.7	7.0	6.5

* indicates seasonally adjusted data.
Sources: CMIE, CEIC, NSO, MOSPI, RBI, SEBI, FIMMDA

MONETARY POLICY STATEMENT FOR 2020-21

Monetary Policy Statement, 2020-21 Resolution of the
Monetary Policy Committee (MPC), December 2020

Monetary Policy Statement, 2020-21 Resolution of the Monetary Policy Committee (MPC) *

On the basis of an assessment of the current and evolving macroeconomic situation, the Monetary Policy Committee (MPC) at its meeting today (December 4, 2020) decided to:

- keep the policy repo rate under the liquidity adjustment facility (LAF) unchanged at 4.0 per cent.

Consequently, the reverse repo rate under the LAF remains unchanged at 3.35 per cent and the marginal standing facility (MSF) rate and the Bank Rate at 4.25 per cent.

- The MPC also decided to continue with the accommodative stance as long as necessary – at least during the current financial year and into the next financial year – to revive growth on a durable basis and mitigate the impact of COVID-19 on the economy, while ensuring that inflation remains within the target going forward.

These decisions are in consonance with the objective of achieving the medium-term target for consumer price index (CPI) inflation of 4 per cent within a band of +/- 2 per cent, while supporting growth.

The main considerations underlying the decision are set out in the statement below.

Assessment

Global Economy

2. The outlook for Q4 (October-December) of 2020 is overcast with a surge in COVID-19 infections in a second wave across Europe, the US and major emerging market economies (EMEs), with accompanying lockdowns. Progress on vaccine candidates has, however, generated some offsetting optimism. World trade recorded a rebound in Q3 as lockdowns were eased, but it is likely to slow in Q4 as pent-up demand is exhausted, inventory restocking is completed, and trade-related uncertainty is rising with the second wave. CPI inflation has remained muted across major advanced economies (AEs) while it picked up in some EMEs on firming food prices and supply disruptions. Global financial markets remain buoyant, supported by highly accommodative monetary policies and positive news on the vaccine.

Domestic Economy

3. In India, the data release of the National Statistical Office (NSO) on November 27 showed a contraction of 7.5 per cent in real GDP in Q2:2020-21 (July-September). In Q3:2020-21, high frequency indicators point to a recovery gaining traction, with double digit growth in passenger vehicles and motorcycle sales, railway freight traffic, and electricity consumption in October, although there was moderation in some of these indicators in November. Riding on the favourable monsoon, the outlook for agriculture remains bright, with rabi sowing up 4.0 per cent from the acreage covered at this time last year under supportive soil moisture and reservoir conditions.

4. CPI inflation rose sharply to 7.3 per cent in September and further to 7.6 per cent in October 2020, with some evidence that price pressures are spreading. Food inflation surged to double digits in October across protein-rich items including pulses, edible oils, vegetables and spices on multiple supply shocks. Core inflation, i.e., CPI excluding food and fuel, also picked up from 5.4 per cent in September to 5.8 per cent in October. Both three months and one year ahead inflation expectations of households have eased modestly in anticipation of the seasonal

* Released on December 4, 2020.

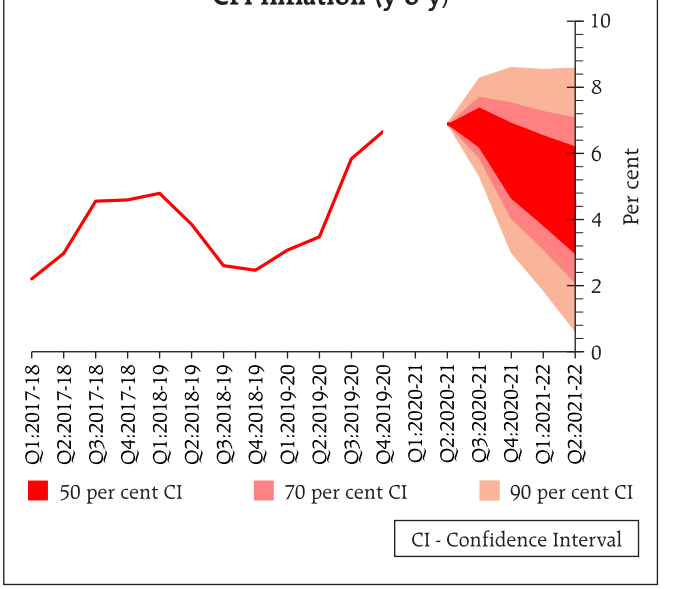
moderation of food prices in the winter and easing of supply chain disruptions.

5. Domestic financial conditions remained easy in October-November and systemic liquidity continued to be in large surplus. Reserve money increased by 15.3 per cent (y-o-y) (as on November 27, 2020), driven by a surge in currency demand. Money supply (M3), on the other hand, grew by only 12.5 per cent as on November 20, 2020. A noteworthy development is that non-food credit growth accelerated and moved into positive territory for the first time in November 2020 on a financial year basis – hitherto, the large inflow of deposits into the banking system was being predominantly deployed in SLR investment. Corporate bond issuances stood at ₹4.4 lakh crore during April-October 2020 as against ₹3.5 lakh crore during the same period last year. India's foreign exchange reserves were US$ 574.8 billion (as on November 27), up from US$ 545.6 billion on October 2 at the time of the MPC's last resolution.

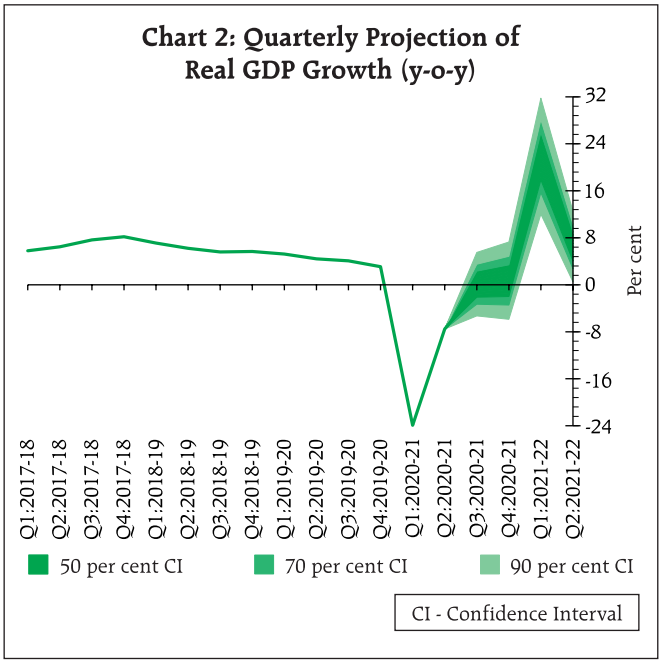
Outlook

6. The outlook for inflation has turned adverse relative to expectations in the last two months. The substantial wedge between wholesale and retail inflation points to the supply-side bottlenecks and large margins being charged to the consumer. While cereal prices may continue to soften with the bumper kharif harvest arrivals and vegetable prices may ease with the winter crop, other food prices are likely to persist at elevated levels. Crude oil prices have picked up on optimism of demand recovery, continuation of OPEC *plus* production cuts and are expected to remain volatile in the near-term. Cost-push pressures continue to impinge on core inflation, which has remained sticky and could firm up as economic activity normalises and demand picks up. Taking into consideration all these factors, CPI inflation is projected at 6.8 per cent for Q3:2020-21, 5.8 per cent for Q4:2020-21; and 5.2 per cent to 4.6 per cent in H1:2021-22, with risks broadly balanced (Chart 1).

Chart 1: Quarterly Projection of CPI Inflation (y-o-y)



7. Turning to the growth outlook, the recovery in rural demand is expected to strengthen further, while urban demand is also gaining momentum as unlocking spurs activity and employment, especially of labour displaced by COVID-19. These positive impulses are, however, clouded by a possible rise in infections in some parts of the country, prompting some local containment measures. At the same time, the recovery rate has crossed 94 per cent and there is considerable optimism on successes in vaccine trials. Consumers remain optimistic about the outlook, and business sentiment of manufacturing firms is gradually improving. Fiscal stimulus is increasingly moving beyond being supportive of consumption and liquidity to supporting growth-generating investment. On the other hand, private investment is still slack and capacity utilisation has not fully recovered. While exports are on an uneven recovery, the prospects have brightened with the progress on the vaccines. Demand for contact-intensive services is likely to remain subdued for some time due to social distancing norms and risk aversion. Taking these factors into consideration, real GDP growth is projected at (-)7.5 per cent in 2020-21: (+)0.1 per cent in Q3:2020-21 and



(+)0.7 per cent in Q4:2020-21; and (+)21.9 per cent to (+)6.5 per cent in H1:2021-22, with risks broadly balanced (Chart 2).

8. The MPC is of the view that inflation is likely to remain elevated, barring transient relief in the winter months from prices of perishables. This constrains monetary policy at the current juncture from using the space available to act in support of growth. At the same time, the signs of recovery are far from being broad-based and are dependent on sustained policy support. A small window is available for proactive supply management strategies to break the inflation spiral being fuelled by supply chain disruptions, excessive margins and indirect taxes. Further efforts are necessary to mitigate supply-side driven inflation pressures. Monetary policy will monitor closely all threats to price stability to anchor broader macroeconomic and financial stability. Accordingly, the MPC in its meeting today decided to maintain status quo on the policy rate and continue with the accommodative stance as long as necessary – at least during the current financial year and into the next financial year – to revive growth on a durable basis and mitigate the impact of COVID-19 on the economy, while ensuring that inflation remains within the target going forward.

9. All members of the MPC – Dr. Shashanka Bhide, Dr. Ashima Goyal, Prof. Jayanth R. Varma, Dr. Mridul K. Saggar, Dr. Michael Debabrata Patra and Shri Shaktikanta Das – unanimously voted for keeping the policy repo rate unchanged. Further, all members of the MPC voted unanimously to continue with the accommodative stance as long as necessary – at least during the current financial year and into the next financial year – to revive growth on a durable basis and mitigate the impact of COVID-19 on the economy, while ensuring that inflation remains within the target going forward.

10. The minutes of the MPC's meeting will be published by December 18, 2020.

STATEMENT ON DEVELOPMENTAL AND REGULATORY POLICIES

Statement on Developmental and Regulatory Policies

Statement on Developmental and Regulatory Policies

This Statement sets out various developmental and regulatory policy measures to i) enhance liquidity support to targeted sectors of the economy with linkages to other sectors; (ii) deepen financial markets; (iii) conserve capital among banks and NBFCs through regulatory initiatives; (iv) strengthen supervision through the audit function; (v) facilitate external trade by improving ease of doing business for exporters; and (vi) upgrade payment system services so as to expand financial inclusion and improve customer service.

I. Liquidity Measures to Revive Activity

1. On Tap TLTRO – Extension of Sectors and Synergy with ECLGS 2.0

With a view to increasing the focus of liquidity measures on revival of activity in specific sectors that have both backward and forward linkages and having multiplier effects on growth, the RBI had announced the TLTRO on Tap Scheme on October 9, 2020 which will be available up to March 31, 2021. Accordingly, it was decided to conduct on tap TLTRO with tenors of up to three years for a total amount of up to ₹1,00,000 crore at a floating rate linked to the policy repo rate with flexibility to enhance the amount and period after a review of the response to the scheme. As part of Atmanirbhar Bharat Package 3.0 announced on November 12, 2020, the Central Government launched Emergency Credit Line Guarantee Scheme 2.0 (ECLGS 2.0) under which the corpus of ₹3.0 lakh crore of existing ECLGS 1.0 was extended to provide 100 per cent guaranteed collateral free additional credit to entities in 26 stressed sectors identified by the Kamath Committee of RBI plus health care sector with credit outstanding of above ₹50 crore and up to ₹500 crore as on 29.2.2020. Accordingly, in addition to the five sectors announced under the scheme on October 21, 2020, it is now proposed to bring the 26 stressed sectors identified by the Kamath Committee within the ambit of sectors eligible under on tap TLTRO. Banks are encouraged to synergise the two schemes by availing funds from RBI under on tap TLTRO and seek guarantee under ECLGS 2.0 to provide credit support to stressed sectors. Liquidity availed by banks under the scheme should be deployed in corporate bonds, commercial papers, and non-convertible debentures issued by the entities in specific sectors over and above the outstanding level of their investments in such instruments as on September 30, 2020. The liquidity availed under the scheme can also be used to extend bank loans and advances to these sectors. Investments made by banks under this facility will be classified as held to maturity (HTM) even above the 25 per cent of total investment permitted to be included in the HTM portfolio. All exposures under this facility will also be exempted from reckoning under the large exposure framework (LEF).

2. Facilitating More Efficient Liquidity Management for Regional Rural Banks (RRBs)

The Regional Rural Banks (RRBs) are currently not permitted to access the liquidity windows of the Reserve Bank as well as the call/notice money market. Two new measures are now proposed to address these issues. (i) In order to facilitate more efficient liquidity management by the RRBs at competitive rates, it has been decided to extend the Liquidity Adjustment Facility (LAF) and Marginal Standing Facility (MSF) to RRBs. (ii) It has also been decided to permit the RRBs to participate in the Call/Notice money market, both as borrowers and lenders. Detailed instructions in this regard will be issued shortly.

II. Regulation and Supervision

The regulatory response of the Reserve Bank since the onset of the COVID-19 pandemic has focused on mitigation of the immediate impact on debt repayments by the borrowers, enabling credible resolution of stress of the borrower entities and,

facilitating credit flow to the economy, while keeping a watch on the financial stability imperatives. In furtherance of the same, the following measures are being announced:

3. Dividend Distribution by Banks

In view of the COVID-19 related economic shock, it was announced in April 2020 that scheduled commercial banks (SCBs) and cooperative banks shall not make any dividend payouts from profits pertaining to the financial year ended March 31, 2020 until further instructions, which shall be reassessed based on financial results of banks for the quarter ending September 30, 2020. In view of the ongoing stress and the heightened uncertainty on account of COVID-19, it is imperative that banks continue to conserve capital to support the economy and absorb losses, if any. In order to further strengthen the banks' balance sheets while at the same time supporting lending to the real economy, it has been decided, on a review, that SCBs and cooperative banks shall not make any dividend pay-out from the profits pertaining to financial year 2019-20. Guidelines on the above measure will be issued shortly.

4. Dividend Distribution Policy for NBFCs

Unlike banks, currently there are no guidelines in place with regard to distribution of dividend by NBFCs. Keeping in view the increasing significance of NBFCs in the financial system and their interlinkages with different segments, it has been decided to formulate guidelines on dividend distribution by NBFCs. Different categories of NBFCs would be allowed to declare dividend as per a matrix of parameters, subject to a set of generic conditions. A draft circular in this regard will be issued shortly for public comments.

5. Discussion Paper on Scale-based Regulatory Framework for NBFCs

The contribution of NBFCs as a supplemental channel of credit intermediation alongside banks is well recognised. Regulatory regime governing the NBFC sector is built on the principle of proportionality such that adequate operational flexibility is available to the sector through calibrated regulatory measures. However, there are rapid developments in the last few years, which have led to significant increase in size and interconnectedness of the NBFC sector. There is, therefore, a need to review the regulatory framework in line with the changing risk profile of NBFCs. It is felt that a scale-based regulatory approach linked to the systemic risk contribution of NBFCs could be the way forward. It has been decided to carry out consultation with stakeholders before finalising the revised regulatory framework. A Discussion Paper in this regard will be issued before January 15, 2021 for public comments.

6. Strengthening Audit Systems of Supervised Entities (SEs): (i) issuance of guidelines to large UCBs and NBFCs on adoption of Risk Based Internal Audit (RBIA); (ii) harmonisation of guidelines on appointment of statutory auditors for commercial banks, UCBs and NBFCs

In the recent past, weakness in three lines of defence mechanism have often proved to be major fault line affecting certain banks and NBFCs adversely. These three lines of defence are: (i) the business unit itself; (ii) risk management and compliance; and (iii) internal audit. Hence, supervisory focus in strengthening the governance and assurance functions in supervised entities (SEs) continues to be a dominant theme with the RBI. One of the goals of unification of supervisory functions in RBI was to bring the standard of supervision of UCBs and NBFCs proportionately at par with that for commercial banks.

The Internal Audit function, as third line of defence, needs to be strengthened in UCBs and NBFCs. Risk Based Internal Audit (RBIA) was mandated by RBI for commercial banks in 2002. It has now been decided to issue guidelines to large UCBs and NBFCs

on adoption of RBIA. This will enable the creation of independent risk focussed internal audit system.

While external statutory auditors remain outside the internal mechanisms of a supervised entity, they are often termed as fourth line of defence given the vital role they play. Recent amendment in Banking Regulation Act, 1949 bestowing certain additional responsibilities to RBI in appointment of statutory auditors in UCBs is also a pointer in that direction. Hence, it has been decided to harmonise guidelines on appointment of Statutory Auditors for commercial banks, UCBs and NBFCs. The new guidelines will enable SEs to appoint the audit firms as per their needs in a timely, transparent and effective manner. This is expected to improve the quality of financial reporting of SEs. Guidelines in this regard will be issued separately.

7. Digital Payment Security Controls

Going by the pre-eminent role being played by digital payment systems in India, RBI gives highest importance to the security controls around it. Now it is proposed to issue Reserve Bank of India (Digital Payment Security Controls) Directions, 2020 for regulated entities to set up a robust governance structure for such systems and implement common minimum standards of security controls for channels like internet, mobile banking, card payments, among others. While the guidelines will be technology and platform agnostic, it will create an enhanced and enabling environment for customers to use digital payment products in more safe and secure manner. Necessary guidelines will be issued separately.

8. Financial Literacy and Education

With a view to promote inclusive growth, deepen financial inclusion and protect the customers by promoting financial literacy, RBI had launched a pilot project in 2017 involving select banks and Non-Governmental Organisations (NGOs) to spread financial literacy in an innovative way through community led participatory approach in 80 blocks by setting up Centres for Financial Literacy (CFL). The project was further extended to 20 more blocks in tribal/economically backward areas in 2019. Based on the experience gained, feedback received from the stakeholders (banks and NGOs) and to promote financial literacy at grass root level in a sustainable manner, it has been decided to expand the reach of the CFLs at every block in the country in a phased manner by March 2024. Necessary guidelines to the stakeholders will be issued shortly.

9. Grievance Redress Mechanism in Banks

The Ombudsman mechanism instituted by the Reserve Bank is an alternate grievance redress mechanism. With a view to strengthen and improve the efficacy of the internal grievance redress mechanism of the banks and to provide better customer service, it has been decided to put in place a comprehensive framework comprising inter alia of enhanced disclosures on customer complaints by the banks, a monetary disincentive in the form of recovery of cost of redress of complaints from banks when maintainable complaints are comparatively high, and undertaking intensive review of grievance redress mechanism and supervisory action against banks that fail to improve their redress mechanism in a time bound manner. The framework would be put in place during January 2021.

III. Deepening Financial Markets

10. Review of Credit Default Swaps (CDS) Guidelines

Development of the market for credit default swaps (CDS) is sine qua non for the development of a liquid market for corporate bonds, especially for the bonds of lower rated issuers. The CDS guidelines were last issued in January 2013. We have been receiving feedback from market participants about the need for expanding the base of protection sellers and certain other operational constraints. The passing of

the Legislation for Bilateral Netting is also expected to provide a fillip to the CDS market. Accordingly, it has been decided to review the guidelines for CDS. Revised draft Directions will be issued shortly.

11. Review of Comprehensive Guidelines on Derivatives

The Comprehensive Guidelines on Derivatives, issued in November 2011, set out *inter alia* the regulatory requirements in respect of customer suitability and appropriateness, governance arrangements and risk management for Over The Counter (OTC) derivative transactions. In line with international standards and recent changes in the regulations relating to interest rate and currency derivatives, the extant guidelines have been reviewed. The revised guidelines seek to promote efficient access to derivative markets while ensuring high standards of governance and conduct in OTC derivative business by market makers. Draft Directions are being issued today.

12. Comprehensive Review of Money Market Directions

As announced in the Statement on Developmental and Regulatory Policies on June 6, 2019, the existing Directions on money market instruments including call money, commercial paper, certificates of deposit and other debt instruments with original maturity less than one year have been comprehensively reviewed and rationalised with a view to bringing in consistency across products in terms of issuers, investors and other participants. Accordingly, three sets of draft directions on call, notice and term money markets; certificate of deposit (CDs); and commercial papers (CPs) and non-convertible debentures (NCDs) with original maturity of less than one year are being released today for public feedback.

IV. External Trade – Facilitation

In recent times, the Reserve Bank has announced several measures pertaining to external trade to enhance the export competitiveness of the country and helping the exporters and importers in coping with the challenges posed by the COVID-19 pandemic. Continuing with these efforts, it has been decided to announce further liberalisation in the extant policies governing certain export transactions. These measures, through delegation of more powers to the authorised dealer banks, will quicken the approval process, thereby improving the ease of doing business.

13. Direct Dispatch of Shipping Documents

Presently, AD Category – I banks (AD banks) are permitted to regularise cases where dispatch of shipping documents was made by the exporter directly to the consignee or his agent if the amount per export shipment is up to USD 1.0 million or its equivalent. It has been decided to remove the monetary ceiling to enable AD banks to regularise such cases, where export proceeds have been realised, irrespective of the value of export shipment.

14. "Write off" of Unrealised Export Bills

Currently, AD banks are permitted to allow write-off of unrealised export bills up to a certain limit beyond which AD bank has to approach the Reserve Bank for approval. The extant process governing write-off of unrealised export bills has been reviewed with a view to simplify the procedure, reduce the time taken for according such approvals, thereby reducing the regulatory cost. Accordingly, it has been decided to delegate the power of allowing write-off to the AD banks, without limits in specified circumstances, *viz.*, cases where overseas buyer has become insolvent or the settlement of the export proceeds to be received has happened through the Indian Embassy, Foreign Chamber of Commerce or similar organisations or if the goods had been destroyed by the Port/Customs/ Health authorities in the importing country. Further, AD bank will be permitted to handle such write-off requests even if documents had been directly dispatched by the exporter.

15. Set-off of Export Receivables against Import Payables

It has been decided to permit AD banks to allow Indian companies to set-off their export receivables against import payables in respect of goods and services with their overseas group/associate companies either on net basis or gross basis through a centralised treasury arrangement or otherwise. Besides, such requests can be acceded to by AD banks in respect of the same overseas buyer/supplier if backed by a legally enforceable contract/agreement, subject to adherence to Foreign Trade Policy. Such net-off can be permitted only when the export and import legs have taken place during the same calendar year.

16. Refund of Export Proceeds

Presently, if refund of export proceeds to the overseas importer is required to be made due to poor quality of the goods exported, the same is permitted by the AD bank through whom export proceeds were received, subject to re-import of the goods. On a review, it has been decided to allow AD banks to consider refund requests without insisting on import of goods, which are perishable in nature or had been auctioned/ destroyed by the Port/ Customs/ Health authorities/ any other accredited agency in the importing country subject to production of documentary evidence.

V. Payment and Settlement Systems

17. Enabling Posting of Settlement Files of Payment Systems on all days of the week

Presently, the facility of posting settlement files of payment systems, operated by authorised payment system operators, to the Reserve Bank is available only on RTGS working days. With round the clock availability of eKuber (core banking system of RBI) and RTGS (to be operationalised soon), it is proposed to allow settlement files of payment systems (*viz.*, AePS, IMPS, NETC, NFS, RuPay, UPI) to be posted to the Reserve Bank on all days of the year. This measure will reduce build-up of settlement and default risks and enable better management of funds by member banks. It will also enhance overall efficiency of the payments ecosystem. Instructions in this regard will be issued shortly.

18. Card Transactions in Contactless Mode and e-Mandates on Cards for Recurring Transactions – Enhancement of Limit

Contactless card transactions and e-mandates on cards (and UPI) for recurring transactions have enhanced customer convenience in general while benefitting from increased use of technology. These are also well-suited to make payments in a safe and secure manner, especially during the current pandemic. The recent instructions on disablement of contactless feature on cards and empowering customers to control the limits on their cards have also brought in added safety for users. To further the adoption of digital payments in a safe and secure manner, it is proposed to enhance, at the discretion of the user, the limits for contactless card transactions and e-mandates for recurring transactions through cards (and UPI) from ₹2,000 to ₹5,000 from January 1, 2021. Operational instructions will be issued separately.

SPEECH

Accelerating Financial Market Reforms in India
Shaktikanta Das

Accelerating Financial Market Reforms in India *

Shaktikanta Das

I wish to thank Foreign Exchange Dealers' Association of India (FEDAI) for inviting me on the occasion of their 4th Annual Day. This is an opportune moment to look back and reflect on the developments of the last one year in financial markets and, in particular, the foreign exchange markets. The year 2020 has been one like never before. Faced with an unknown crisis which brought the global economy to a sudden stop, recent policy discourse has been dominated, and rightly so, by the impact of the pandemic. Despite this, regulatory and institutional reforms in the country have moved the domestic financial markets to the next trajectory. Cutting across market segments, these reforms are ushering in a simplified, principle-based regulatory framework that seeks to broad-base markets by easing access, enhancing participation, facilitating innovation, protecting users and promoting fair conduct. Today, I would like to discuss the imperatives and the building blocks of the recent reforms placing them in the context of the big picture of a modern and efficient financial market, equipped to support the aspirations of an open and integrated economy.

Given that we are still amidst the pandemic, where near-term macro concerns dominate the discourse, let me start with a few words on the macroeconomic outlook and financial market conditions.

Macroeconomic Outlook

After witnessing a sharp contraction in GDP by 23.9 per cent in Q1:2020-21 and a multi-speed normalisation of activity in Q2, the Indian economy has exhibited stronger than expected pick up in momentum of recovery. The global economy has also witnessed a stronger than expected rebound in activity in Q3. The IMF has accordingly revised its assessment for global growth in 2020 to a less severe contraction than what was assessed in June 2020.

Even as the growth outlook has improved, downside risks to growth continue due to recent surge in infections in advanced economies and parts of India. We need to be watchful about the sustainability of demand after festivals and a possible reassessment of market expectations surrounding the vaccine. The monetary policy guidance in October emphasised the need to see through temporary inflation pressures and also maintain the accommodative stance at least during the current financial year and into the next financial year.

A key source of resilience in recent months has been the comfortable external balance position of India supported by surplus current account balances over two consecutive quarters, resumption of portfolio capital inflows on the back of robust FDI inflows, and sustained build-up of foreign exchange reserves. The Government's recent policy focus to enhance India's participation in global value chains, including through production linked incentives for targeted sectors, can leverage on the strong external balance position of India.

Financial Market Developments

Let me now turn to financial markets. Domestic financial market conditions were benign at the start of the year but witnessed severe stress and dislocation as the COVID-19 pandemic unfolded. Thinning out of activity impacted market liquidity. Increased volatility of financial prices was observed across most asset classes. Yields hardened in the government securities market and the yield curve steepened sharply amidst concerns about fiscal slippage and sustained sell-off by FPIs. The financing conditions

* Address by Shri Shaktikanta Das, Governor, Reserve Bank of India at the 4th Annual Day of Foreign Exchange Dealers' Association of India (FEDAI) on November 26, 2020.

in the commercial paper and corporate bond market also deteriorated, reflecting overall market conditions as well as generalised risk aversion. The Rupee sharply depreciated, with increasing volatility and heightened forward premia. The Reserve Bank acted proactively and nimble-footedly to ease financial market conditions and mitigate risks with a slew of conventional and unconventional measures. Market participants responded with alacrity and together we have been able to ensure stable and resilient markets across all segments. The Reserve Bank remains committed to fostering orderly functioning of financial markets and will continue to evaluate incoming information having a bearing on the financial markets and act, as needed, to mitigate any downside risks.

Over the last three decades, the pace of financial market reforms has gathered momentum, *albeit* occasionally interrupted by financial crises. A calibrated opening up of the Indian economy has occurred since the 1990s. Alongside, the institutional architecture has been deepened keeping in view the specifics of the country context. In the interregnum, the markets have traversed a long distance.

Over the years, the bond markets in the country have become broad-based in terms of participation, availability of a variety of instruments and development of repo and derivative markets. The sovereign yield curve now spans up to 40 years and provides a stable pricing backbone for the development of the corporate bond market. The foreign exchange market has also come a long way, with increasing diversity in instruments and participants, and a growing integration of the economy with the global economy. Alongside these changes, significant improvements in the market infrastructure have taken place encompassing state-of-the-art primary issuance process for government securities, an efficient and completely dematerialized depository system within the central bank, electronic trading platforms, trade reporting and central counterparty settlement.

Even as the financial markets evolved, some imperfections became evident. Secondary market liquidity in government securities increased but was confined to a few benchmark tenors. The participation base grew but diversity of views remained limited with predominance of "buy and hold" and "long-only" investors. Interest rate derivative markets grew but remained limited to one product – the Overnight Indexed Swap – and to a small set of market participants. Domestic foreign exchange markets also grew but so did the offshore markets, fragmenting the global market for the Indian Rupee and impairing market efficiency. New product development remained constrained, in part, due to limited participation and also due to regulatory restrictions which had developed in response to the past experience with complex products and concerns about valuations and mis-selling. Meanwhile, episodes of misconduct and abuse in global markets raised the imperative of improving governance frameworks to pre-emptively safeguard domestic markets.

Notwithstanding these imperfections, the resilience and strong foundation of financial markets, nurtured over time, also presented an opportunity. Markets with a small number of participants tend to become 'closed user clubs' with predictable behavioural attributes. Furthermore, speculative flows in thin markets can create distortions. In deep markets, these very flows can add liquidity and make the markets more resilient. A calibrated opening up of the economy can supplement domestic savings and help finance growth and development.

Against this backdrop, the Reserve Bank has taken steps to usher in the next phase of reforms to accelerate the pace of liberalisation. The recent reform measures, many of which are in the works, have been fashioned around the four major themes of (i) liberalising financial markets and simplifying market regulation; (ii) internationalising financial markets; (iii) safeguarding the "buy side" – user protection;

and (iv) ensuring resilience and safety. Let me discuss each of these themes.

Liberalising Financial Markets and Simplifying Market Regulations

The broad approach driving the recent regulatory initiatives is that any person with a need to access financial markets should be able to do so with ease at minimum cost. Principle-based regulations for interest rate derivatives and foreign exchange derivatives aim at achieving this broad objective. Detailed procedural prescriptions have been replaced with basic principles, thereby allowing - greater operational flexibility for market participants. Earlier restrictions on design of derivative contracts and cancellation and rebooking of foreign exchange derivatives have been dispensed with. Distinctions based on residency have been removed or reduced, bringing foreign participants at par with domestic entities in terms of market entry and exit. While retaining the existence of underlying exposures as the basis for access, greater flexibility and ease of hedging have been brought in by allowing anticipated exposures to be hedged. Users with limited/small hedging requirements have been allowed to enter into contracts equivalent of US$ 10 million without the need to establish the existence of underlying exposures.

Simplifying regulations and providing procedural flexibilities have also contributed to easing operating conditions and thereby reducing costs and inefficiencies. While some operational constraints are inevitable, especially those warranted by prudential considerations, our approach has been to ease operating conditions within these considerations. Another example of this is the recent passing of the Bilateral Netting of Qualified Financial Contracts Act, 2020, which addresses an important operating constraint. The absence of legal recognition for bilateral netting had discouraged the use of derivatives for effective risk management. The legislation provides the enabling framework for cash and derivative market transactions to be off-set. This will enable optimization of capital requirement for financial institutions and will provide an impetus for the development of derivative markets.

Internationalisation of Financial Markets

Internationalisation of financial markets can lower transaction costs with efficiency gains. Over the last three decades, India has undergone a transformation from being a virtually closed economy to one that is globally connected and open to a much larger volume of international transactions and capital flows than before. Today, the capital account is convertible to a great extent. Inward Foreign Direct Investment (FDI) is allowed in most sectors and outbound FDI by Indian incorporated entities is allowed as a multiple of their net worth. The external commercial borrowing framework has also been significantly liberalised to include more eligible borrowers, even as maturity requirements have been reduced and end-use restrictions have been relaxed.

Foreign portfolio investment in Indian debt markets has been expanded within calibrated macro-prudential norms. Limits under the Medium-Term Framework for investment by Foreign Portfolio Investors (FPIs) have been gradually increased and procedures rationalized. A Voluntary Retention Route (VRR) has been introduced, which provides relaxations from macroprudential controls but subject to a minimum retention period. In a major step towards greater internationalisation, the Fully Accessible Route (FAR) was introduced under which non-residents can invest in specified government securities without any restriction. Capital account convertibility will continue to be approached as a process rather than an event, taking cognizance of prevalent macroeconomic conditions. A long term vision with short and medium term goals is the way ahead.

As a major milestone towards opening up of markets, banks in India have been permitted to deal in the offshore rupee derivative markets. The measure is expected to reduce the segmentation between onshore and offshore markets, apart from reducing volatility and the cost of hedging. Banks have also been permitted to undertake foreign exchange transactions beyond the usual onshore market hours, thus fostering real time market activity. In a complementary measure, exchanges and banking units in the GIFT City have been permitted to undertake Over the Counter (OTC) and exchange traded Rupee derivatives.

Safeguarding the "Buy Side" – User Protection

Safeguarding the interests of the users – the "buy" side of financial markets - is an imperative especially in the context of liberalised markets and introduction of newer and more sophisticated products. A number of initiatives have been taken in this regard, a few of which I would like to mention.

With a view to providing greater protection to less sophisticated users, a User Classification Framework segregating users into 'retail' and 'non-retail' has been introduced for OTC foreign exchange and interest rate derivative transactions. Retail users can be offered only non-complex derivative products while product innovation has been permitted for non-retail users as per their business needs.

The issue of fair and transparent pricing of foreign exchange products, especially for MSMEs and other smaller users, has been occupying our attention. Market-makers are now mandated to separately disclose fees /charges when dealing with retail users. Also, an anonymous order matching electronic trading platform, called FX-Retail, has been launched by the Clearing Corporation of India (CCIL), at the behest of the Reserve Bank. This platform allows users with small transaction sizes to undertake transactions at best available market rates. These measures are expected to ensure greater transparency and protection of the retail user. Concerted efforts by banks will be needed if the benefits of transparent and competitive pricing are to reach every user of the foreign exchange markets.

As derivative markets are liberalised, market conduct needs to be strengthened through robust assessment of product suitability and user appropriateness. Regulatory requirements in this regard are being reviewed in consonance with the overall changes to the regulatory approach.

Ensuring Resilience and Safety

Financial market infrastructure in India has remained resilient even during various financial crises. Learning from international episodes of market failure, several further initiatives have been taken to ensure continued resilience.

Fair market conduct is critical to ensure efficient functioning and preserving trust in the financial ecosystem. Hitherto, conduct codes prescribed by market bodies like the Fixed Income Money Market and Derivatives Association of India (FIMMDA) and FEDAI guided participants in the financial markets. To supplement and strengthen these, a regulatory framework for market abuse has been put in place.

The Reserve Bank has been taking measures to implement the G20 over-the-counter (OTC) derivatives market reforms. In line with global trends, electronic trading platforms (ETPs) have been brought under regulatory purview to ensure efficiency of operations and address systemic risks. A draft framework for variation margin for OTC derivatives aimed at reducing counterparty risks from non-centrally cleared derivatives, has been recently issued.

Global efforts are underway to put in place a Legal Entity Identifier (LEI) which uniquely identifies financial market participants and enables aggregation of risks. Reserve Bank has also mandated the use of the LEI for participants in the markets it regulates. In fact, we are one of the few countries that has implemented

LEI beyond derivative markets to cover transactions in government securities and money markets as well as the credit market (large loans).

A key issue which has been engaging global attention is the transition from the London Interbank Offer Rate (LIBOR) to alternate reference rates. In India, several measures have been taken to make financial benchmark processes more transparent and robust. Most recently, the administrators of significant financial benchmarks were brought under regulation to ensure robust governance frameworks and process controls. These reforms will stand us in good stead as we prepare ourselves for the LIBOR transition. The Indian Banks' Association has been working closely with market participants to facilitate the transition to alternate benchmarks and create customer awareness. Achieving a smooth transition from a benchmark entrenched in the financial system will require significant efforts from all stakeholders.

IV. Conclusion

I have attempted to set out today the broad themes which have guided the liberalisation/reform agenda for financial markets. The recent changes are aimed at enabling financial markets to enhance allocational efficiency in the use of resources and thereby contribute to economic development. With this freedom comes responsibility. The achievement of desired outcomes is contingent on financial institutions and market participants taking forward the reform agenda so that we have vibrant financial markets and efficient financial intermediation. The simplification and flexibility provided in the regulations must reach the end-user. In designing new products and new market segments, risk management systems and responsible market conduct should evolve in tandem as we open up to global players. Market participants and their associations including FEDAI will have to play a critical role in this.

ARTICLES

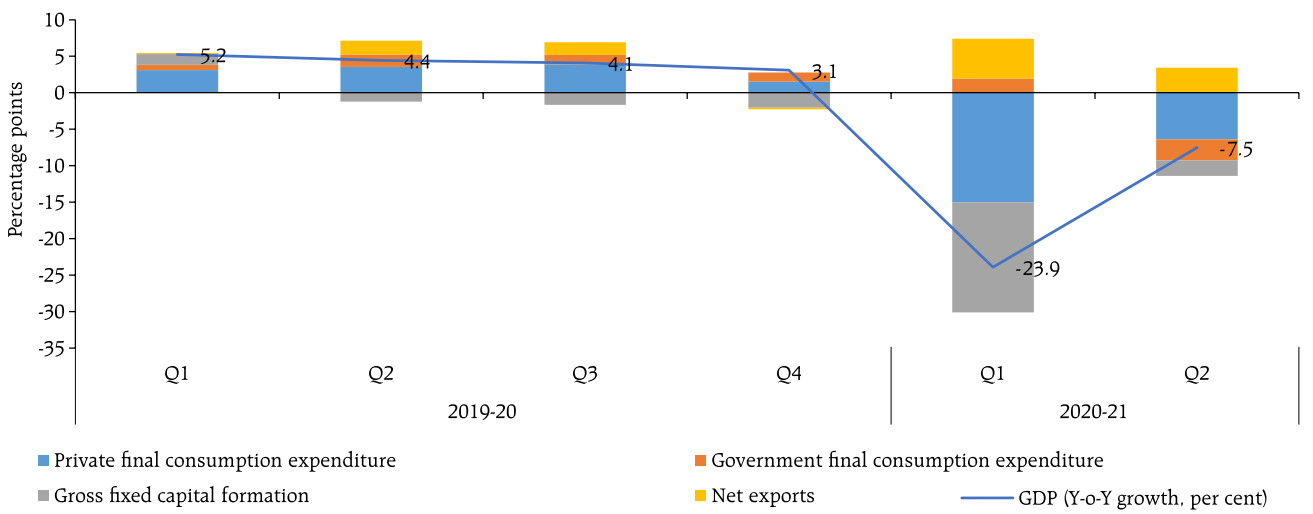
*State of the Economy**

Since the assessment presented in the last month's Article, more evidence has been turned in to show that the Indian economy is pulling out of COVID-19's deep abyss and is reflating at a pace that beats most predictions. Although headwinds blow, steadfast efforts by all stakeholders could put India on a faster growth trajectory.

Over the month gone by, more evidence has been turned in to show that the Indian economy is pulling out of COVID-19's deep abyss and is breaking out amidst winter's lengthening shadows towards a place in the sunlight. First, the National Statistical Office's (NSO) end-November release delivered a pleasant surprise – the pandemic-imposed retrenchment of Q1:2020-21 turned out to be much shallower in Q2 and the economy is reflating at a pace that beats most predictions (Chart 1). Second, the update of the economic activity index (EAI) in the nowcasting assessment presented in last month's Bulletin (Kumar, 2020) indicates that real GDP growth is expected to break out into positive territory in Q3 - *albeit*, to a slender 0.1 per cent. Third, the fourth bi-monthly resolution of the monetary policy committee (MPC) did maintain *status quo* on the policy rate and stance; but a powerful message was conveyed: growth projections - the intermediate target under a flexible inflation targeting framework and the most potent communication tool - were revised upwards by 200 basis points from October and if they hold, the Indian economy will clock a growth rate of 14.2 per cent in the first half of 2021-22 on top of 0.4 per cent in the second half of 2020-21 (Chart 2).

Two important forces are conspiring to bless this turning of the page on the virus. First, India is bending the COVID infection curve: since mid-September, barring localised surges, infections are slanting

Chart 1: Weighted Contribution to GDP Growth



Note: Component-wise contributions to growth do not add up to total because change in stocks, valuables and discrepancies are not included.
Source: National Statistical Office (NSO).

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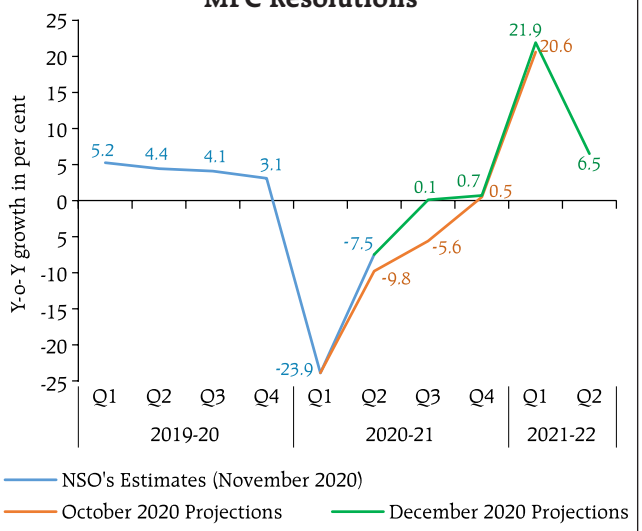
Chart 2: Quarterly Growth Projections in MPC Resolutions



Source: National Statistical Office (NSO); and RBI estimates.

downwards week after week, and the recovery rate[1] is nudging 95 per cent. A battery of vaccine candidates has successfully hit not only trial status but also suitability for transportation/trials/usage in India (Table 1). Second, it is now getting clearer that there is a system to the fiscal stimulus, a 'method' if you will. Starting out with liquidity/guarantee and cash/kind support to the economy - the need of the hour when the pandemic struck and displaced crores from their lives and livelihoods - it is transiting in a calibrated fashion to supporting investment and consumption demand. The fiscal measures have been sequenced in a designed shift in focus from consumption expenditure in *Pradhan Mantri Garib Kalyan Package* (PMGKP) to investment expenditure in *Aatma Nirbhar* 2.0 and 3.0 (Chart 3). On the whole, the above-the-line fiscal stimulus will likely boost growth by close to 2 per cent of GDP in 2020-21 (see Box I in the subsequent Article on Government Finances). In other words, it is prudent to look beyond the volatility inherent in high frequency indicators. Companies are doing so already – an analysis of 12-months ahead forward earnings reveals improvement in the outlook for a large number of companies (Chart 4). Sectors such as auto and capital goods, which had been hit hard by the lockdown are expecting a turnaround in forward earnings. Healthcare, information technology (IT) and fast moving consumer goods (FMCG) companies are sighting stronger earnings outlook. Moreover, intrinsic strength in the manufacturing and services sectors is being built as debt servicing capacity is getting reinforced and leverage is being brought down. India's farm sector is also forging ahead, backed by path-breaking marketing reforms. There are admittedly headwinds that can potentially circumscribe India's tryst with a brighter future – good news still shines

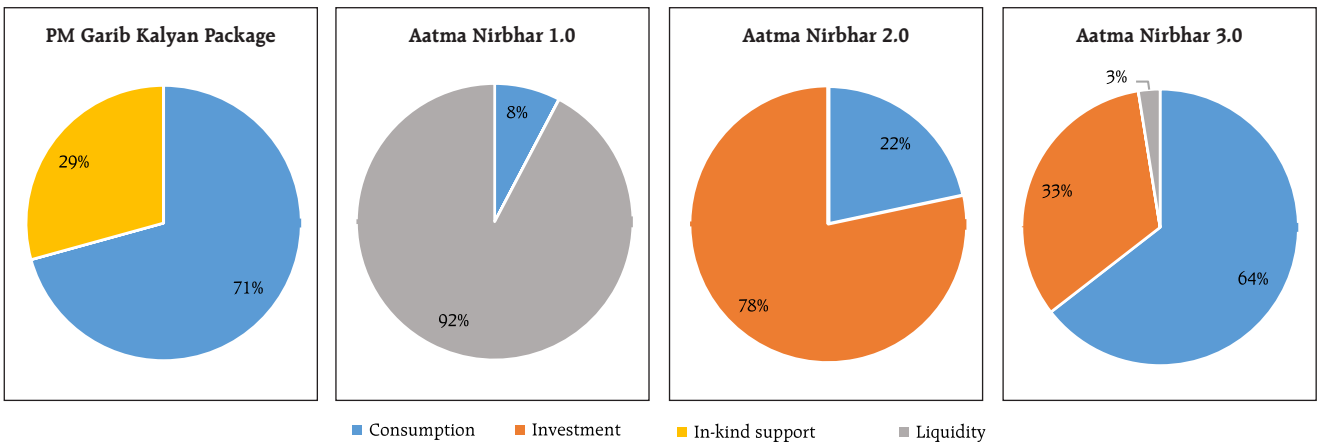
Table 1: COVID-19 Vaccines

Company	Type	Doses	How effective	Storage
Oxford Uni-AstraZeneca	Viral Vector (genetically modified virus)	2	62-90%	Regular fridge temperature
Moderna	RNA (part of virus genetic code)	2	95%	-20°C upto 6 months
Pfizer-BioNTech	RNA	2	95%	-70°C
Gamaleya (Sputnik V)	Viral Vector	2	92%	Regular fridge temperature
CanSinoBIO (Ad5-nCoV)	Recombinant adenovirus type 5 vector			
Sinopharm: Beijing Institute of Biological Products, Wuhan Institute of Biological Products	Inactivated SARS-CoV-2 (vero cells)			
CoronaVac Sinovac	Inactivated SARS-CoV-2			
BBV152 (Covaxin) Bharat Biotech, Indian Council of Medical Research	Inactivated SARS-CoV-2			
NVX-CoV2373[145] Novavax	SARS-CoV-2 recombinant spike protein nanoparticle			

Source: World Health Organisation (WHO).

[1] The recovery rate is defined as the number of patients who have undergone recovery as percentage of total infections.

Chart 3: Breakdown of Stimulus Measures Based on Nature of Support



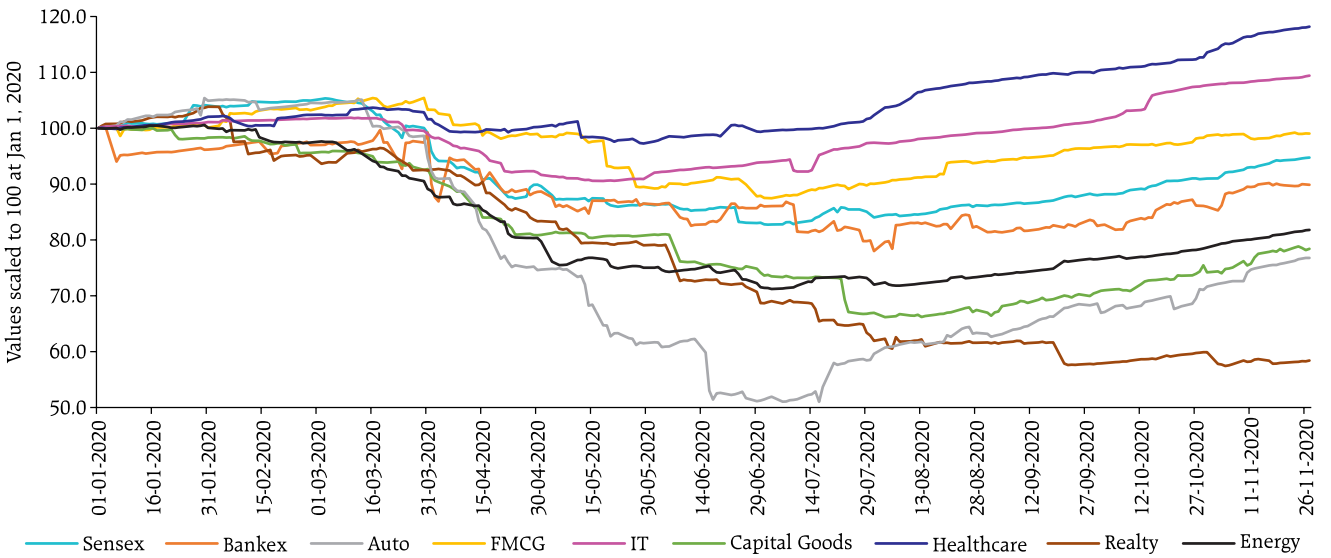
Note: Figures are based on staff estimates of the stimulus measures for the year 2020-21 only.

through in the sift of high frequency indicators to which we now turn. The article is organised into five Sections. Section II assesses the current global economic and financial market developments. Section III extracts underlying trends embedded in high frequency indicators. Section IV reviews evolving financial market conditions, and the last Section sets out concluding observations.

II. The Global Setting

Even as second waves of virus outbreaks checked the pace of the global recovery, the outcome of the US elections and the news about COVID-19 vaccines being more than 90 per cent effective in late-stage clinical trials ignited global markets. Risk appetite has roared back, sending deluges out of safe haven assets into stock markets and emerging market economies. There is growing confidence that an end to the health pandemic

Chart 4: Forward 12 Months Earnings Per Share



Source: Bloomberg.

is in sight and prospects for the global economy are finally looking up on a viable basis. At the same time, recognition of logistical challenges in deploying vaccines widely around the world has tempered this robust optimism. On November 19, the United Nations Conference on Trade and Development (UNCTAD) sounded a sombre note of caution - a viable vaccine will not halt the spread of economic damage, which will be felt long into the future, especially by the poorest and most vulnerable, as an additional 130 million people could descend into extreme poverty.

On the assumption that renewed virus outbreaks remain contained, and that the prospect of a widely available vaccine towards the end of 2021 helps to support confidence, the December 2020 Economic Outlook of the Organisation for Economic Cooperation and Development (OECD) projects global GDP to decline by 4.2 per cent in 2020, followed by a gradual but uneven recovery that raises global GDP by 4.2 per cent in 2021 and by 3.7 per cent in 2022 (Table 2). By the end of 2021, global GDP would be at pre-pandemic levels, but performance would differ markedly across the main economies. On India, the OECD has noted that one of the world's earliest and toughest lockdowns helped to slow the diffusion of the virus. Real GDP is expected to contract by 10 per cent in 2020-21 and rebound thereafter but it may take almost two years for GDP to get back to pre-pandemic levels. Digital technologies are seen as a bright spot.

Overall, the global economic outlook still remains uncertain, with the recovery in activity hesitant. Reflecting these vicissitudes, the global composite purchasing managers' index (PMI) moderated to 53.1 in November 2020 from a two-year high of 53.3 a month ago (Chart 5). Manufacturing output expanded for the fifth successive month in November. Global service sector business activity rose at a slightly slower rate than in October. Consumer

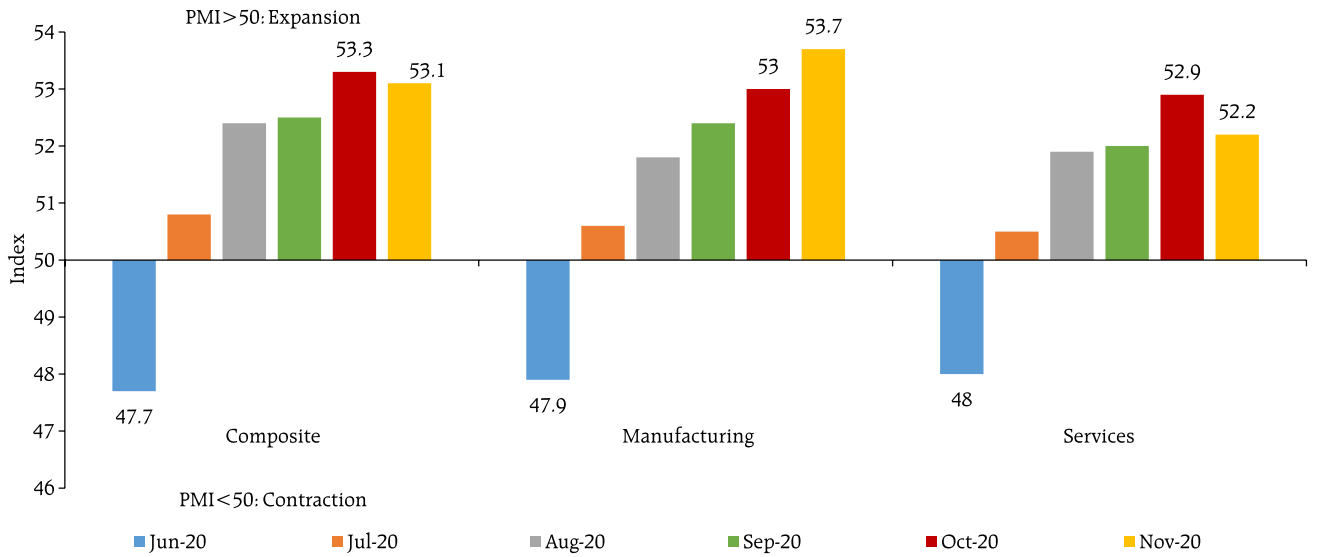
Table 2: OECD Economic Outlook Forecasts December 2020 – Select AEs and EMEs

Country	2019	2020	2021	2022
World	2.7	-4.2	4.2	3.7
Advanced Economies				
US	2.2	-3.7	3.2	3.5
UK	1.3	-11.2	4.2	4.1
Euro area	1.3	-7.5	3.6	3.3
Japan	0.7	-5.3	2.3	1.5
Emerging Market Economies				
China	6.1	1.8	8.0	4.9
Brazil	1.1	-6.0	2.6	2.2
Russia	1.3	-4.3	2.8	2.2
South Africa	0.2	-8.1	3.1	2.5
India	4.2	-9.9	7.9	4.8

Source: OECD stat.

services contracted for the tenth consecutive month. Reflecting the disruptions imposed by the second wave of infections and the hit to demand, global trade has been adversely impacted. According to the UNCTAD, global trade, which plunged 19 per cent year-on-year (y-o-y) in Q2 2020, remained in contraction in Q3 with a decline of about 4.5 per cent. Shallower contractions are expected to continue in Q4, with a decline of about 3 per cent on a similar basis, unless economic activity deteriorates further into a widely expected double dip. Crude oil prices, which have been losing steam since September on waning demand prospects, picked up in November on the back of 'vaccine optimism' and

Chart 5: Global Purchasing Manager's Index



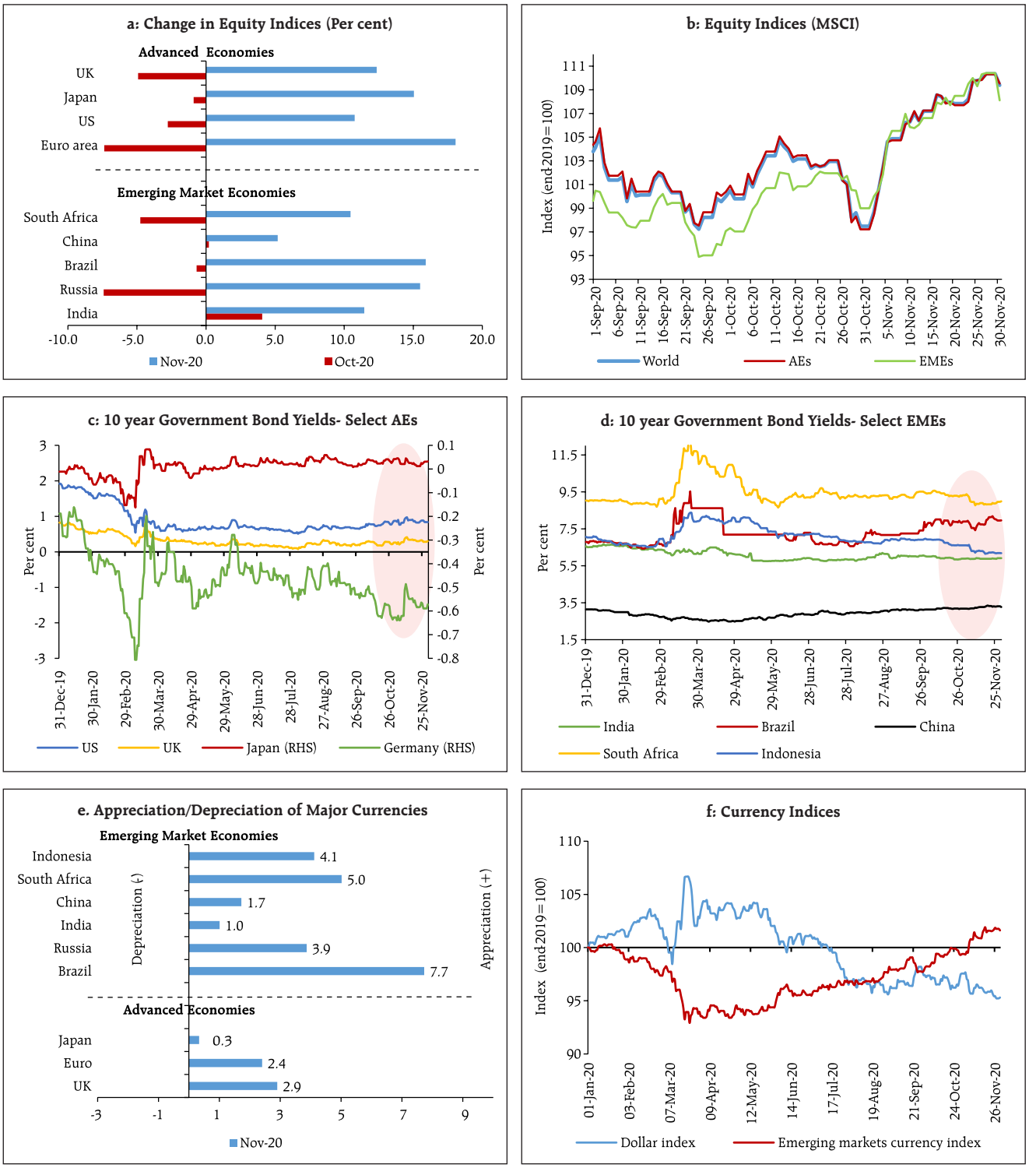
Source: IHS Markit.

on possibilities of extension of production cuts by Organisation of the Petroleum Exporting Countries (OPEC) *plus* in the near term. Averaging US$ 43.23 per barrel in November 2020, they traded 6.8 per cent above their level a month ago. Gold prices ticked up in early November on uncertainty related to the US presidential elections and surges in infections. Over the rest of the month, however, prices corrected and declined by 5.4 per cent during the month as a whole as the vaccine trials and upbeat US manufacturing data triggered risk-on sentiments. On a year-to-date basis, *i.e.*, over end-December 2019, gold prices have increased by 17.1 per cent.

Equity markets, which were alternating up to early November between brief rallies and sharp sell-offs, surged past previous highs on vaccine developments, with investor appetite rotating towards sectors that had been severely hit by the pandemic, on top of the enthusiasm created by improving business conditions (Chart 6). Valuations were stretched during the month and diverged from underlying macroeconomic conditions as well as from the state of corporate finances. In the corporate market segments, credit spreads compressed further, approaching pre-pandemic lows amidst some volatility. On the other hand, banks tightened lending standards. With central bank support being maintained, government bond yields remained unusually low, although US yields hardened at the long end. As a corollary, yields softened in most EMEs. With the intensifying search for yield, sentiment towards EMEs improved and portfolio flows into these economies strengthened. The US dollar weakened in November, lifting EME currencies in particular, although some differentiation was evident in favour of tech-heavy EMEs and those more deeply involved in manufacturing global value chains. In contrast, the currencies of countries more reliant on commodity exports saw a limited rebound. Overall, the US dollar weakened by 2.3 per cent in November, taking its cumulative year-to-date depreciation to 4.7 per cent. EME currencies represented by the Morgan Stanley Capital International Emerging Markets (MSCI-EM) index appreciated by 1.6 per cent year-to-date and by 2.2 per cent in November alone. According to the Institute of International Finance (IIF), portfolio flows to EMEs stood at $76.5 billion in November, almost

equally shared by equity and debt (US$39.8 billion and US$ 36.7 billion, respectively). Q4 2020 is likely to be the strongest quarter for EME inflows since Q1 2013, *i.e.*, since just before the taper tantrum.

Chart 6: Financial Market Developments

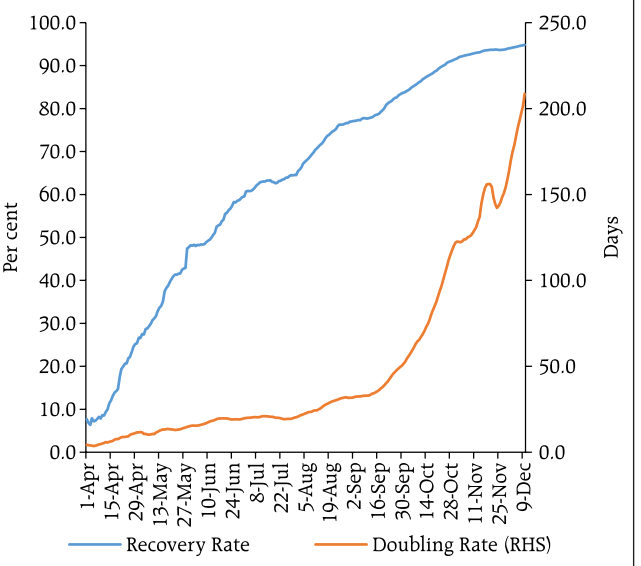


Source: Bloomberg.

III. Domestic Developments

Developments in India suggest a growing differentiation from global conditions in several aspects. By December 10, 2020 the number of total infections was 97,96,769 with 1,42,186 fatalities, but with 92,90,834 individuals cured/discharged. The doubling rate[2] has decreased to 208.6 days *vis-à-vis* 3.5 days before the lockdown was imposed on March 25 (Chart 7). The mortality rate is 1.5 per cent, which is significantly lower than the world death rate (2.2 per cent). The recovery rate in India has also improved from around 5 per cent at the start of the lockdown to around 94.8 per cent on December 10. At the time of going to print, the number of active cases had dropped below 4 lakh, the first time since July. Although still a significant risk, India is the only country other than Argentina, which has not been subjected to a 'second wave'.

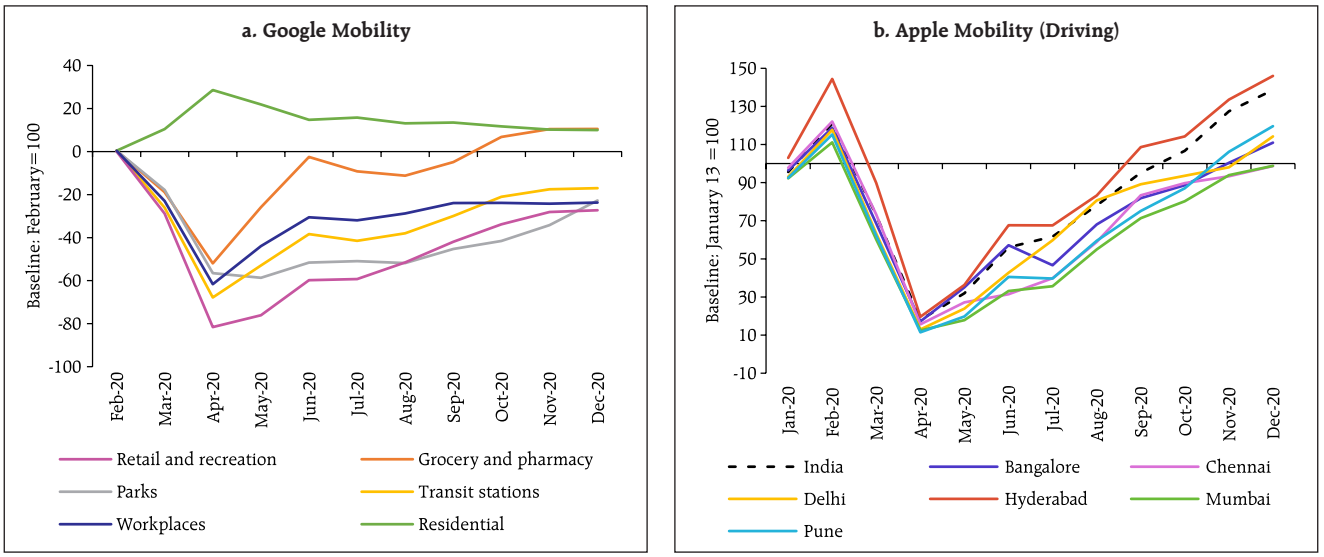
Chart 7: COVID-19 Cases in India



Source: Ministry of Health and Family Welfare.

Mobility continues to normalise – the Google mobility index points to increasing movements around groceries and pharmacies in November, crossing the baseline set in February. Mobility around residential places continued to fall, while it stagnated around workplaces and increased around areas of recreation and retail shops, though at a level lower than the pre-pandemic baseline. These indications are corroborated by the Apple mobility index, that moved past its baseline set on January 13, 2020, led by the cities of Pune, Hyderabad and Bangalore. Early data for December so far (up to December 6) shows mobility near normal in all cities (Chart 8). The movement of goods also picked up in November, as reflected in an

Chart 8: Mobility Indicators



Source: Google and CEIC.

[2] The doubling rate is defined as ln2/ ln (1+r), where r is the average of last seven days of growth on cumulative cases.

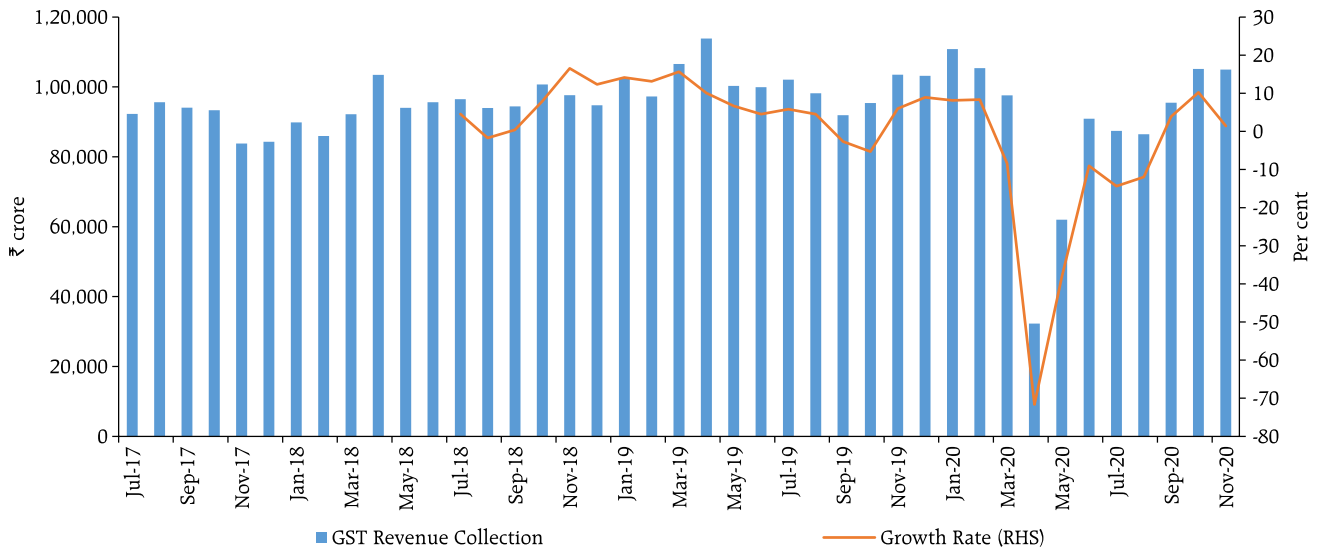
increase of 8.1 per cent y-o-y in the issuance of e-way bills – intra-state by 9.6 per cent; and inter-state by 6.0 per cent – although exhaustion of pent-up demand with reduced festivities produced some moderation.

Aggregate Demand

High frequency indicators, which tend to exhibit some ebb and flow in tracking immediate developments, plateaued in November relative to the preceding month, but in sum they indicated that aggregate demand remained in expansion. As per preliminary estimates, electricity consumption for November 2020 increased for the third successive month in 2020-21 growing by 3.5 per cent y-o-y on top of 11.1 per cent in the preceding month. While consumption of petrol accelerated by 5.0 per cent, diesel consumption slipped into contraction zone, but due to unfavourable base effects. In the festival season between mid-October to mid-November, e-tailers – led by Flipkart and Amazon – grossed ₹58,000 crore, registering a growth of 65 per cent. With domestic spending being maintained, collections under the goods and services tax (GST) remained above the ₹1 lakh crore mark in November for the second time in the financial year, recording a 1.4 per cent y-o-y increase (Chart 9). Consumer sentiment improved in November 2020 round of the Reserve Bank's consumer confidence survey (CCS) from an all-time low in the previous round. Households are now more confident about the year ahead, with expectations of improvement in the general economic situation, employment conditions, income scenario and spending. This has been corroborated by the Refinitiv-Ipsos Primary Consumer Sentiment, which rallied by 2.6 percentage points in November 2020 on the back of improving employment confidence, economic expectations, personal financial conditions and the investment climate.

Employment conditions also improved during November. The Centre for Monitoring Indian Economy (CMIE) reported from its household survey that 40.03 percent of India's working age population participated in the labour market by being employed or by searching for employment while being available for work. Consequently, the unemployment rate declined to 6.51 in November 2020 from 6.98 in October 2020, a sequential fall across both rural and urban

Chart 9: GST Collections

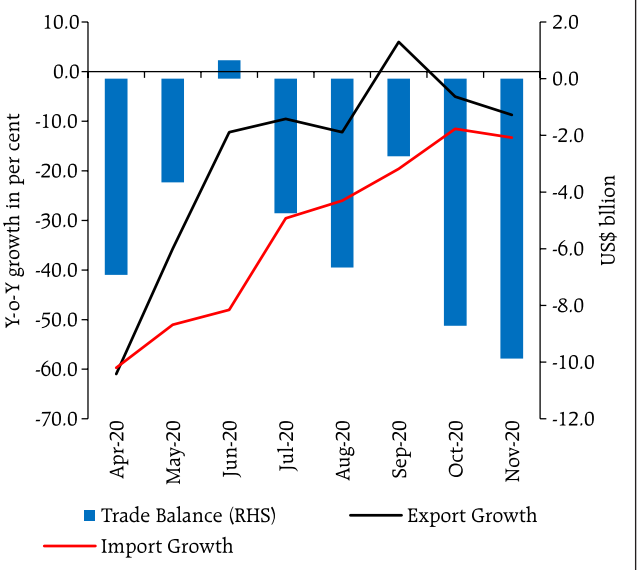


Source: Press Information Bureau.

areas. Reflecting this positive movement, the PMI employment index for services turned positive for the first time in nine months to 50.4 in November 2020 (46.8 in October 2020). According to the TeamLease Employment Outlook Report for Q3:2020-21, large and medium-size businesses continued to lead in the overall intent to hire; however, it was small size businesses, *i.e.*, the Small and Medium Enterprises (SMEs), that have recorded the most significant growth. Under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), employment demand from 25 per cent of the households remained unmet in November 2020, indicative of the desire to regain livelihoods.

Turning to external demand, although total merchandise exports at US$ 23.5 billion declined by 8.7 per cent y-o-y in November in the provisional data of the Ministry of Commerce and Industry, non-oil exports maintained pre-COVID-19 levels for the third consecutive month (Chart 10). Sectors like drugs and pharmaceuticals, agriculture, pharmaceuticals and iron ore showed resilience. Imports declined for the ninth successive month though the pace of contraction has been moderating more recently. Oil imports declined by 43.4 per cent in November 2020, but essentially driven by soft international crude prices. On the other hand, non-oil imports have returned broadly to pre-COVID levels as domestic demand has started to normalise. The trade deficit widened to US$ 9.9 billion in November 2020, the highest in the current financial year. Going forward, the performance-linked incentive scheme (PLI) has been extended to ten sunrise sectors including pharmaceuticals, electronics/technology products, telecom and networking products and solar cells, which should boost merchandise exports and India's participation in the global value chain.

Chart 10: India's Merchandise Trade



Source: DGCI&S.

Aggregate Supply

Aggregate supply conditions continued to improve through November 2020 on the back of the uptick in agriculture and manufacturing activity. Within the services sector too, there was a revival in construction, but contact-intensive services remained subdued and below pre-COVID levels.

Agriculture has remained resilient and robust in the face of the pandemic. By December 4, 2020, 430.6 lakh hectare or 69.4 per cent of *rabi* sowing over the normal acreage has been completed, higher by 3.9 per cent than the coverage at this time a year ago (Table 3). Adequate reservoir levels have aided sowing – as on December 3, reservoir levels stood at 80 per cent of full capacity as against the decennial average of 66 per cent. Wheat sowing increased by around 0.8 per cent y-o-y, mainly in Madhya Pradesh (14.9 per cent), and Punjab (3.2 per cent). There has also been an impressive improvement in acreage of pulses and oilseeds this year. Meanwhile, procurement of *kharif* rice was 22.1 per cent higher than a year ago, taking the cereals (rice and wheat) buffer stock to 2.4 times the norm by December 1, 2020.

Turning to industrial activity, the manufacturing purchasing managers' index (PMI) remained in expansion zone in November, although at 56.3, it

Table 3: All India Crop Situation - *Rabi* (2020-21) as on December 4, 2020

(In lakh hectares)

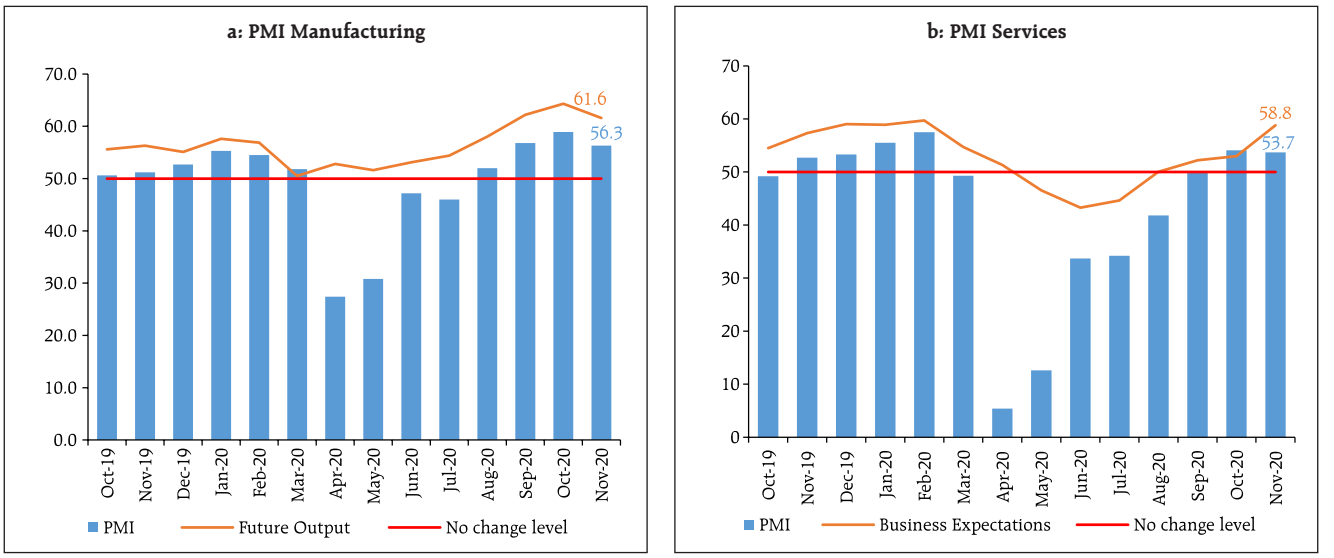
Crop Name	Normal area		Sowing as on date		Percentage variation	
	Full season	As on date	This year (2020)	Last year (2019)	Over normal (as on date)	Over last Year
1. Wheat	**303.3**	**198.8**	**204.4**	**202.7**	**2.8**	**0.8**
2. Rice	**41.8**	**9.8**	**9.6**	**10.0**	**-2.6**	**-4.0**
3. Coarse Cereals	**57.1**	**41.2**	**33.0**	**35.6**	**-19.9**	**-7.2**
a. Jowar	33.4	26.1	20.9	21.2	-19.7	-1.1
b. Barley	6.4	5.7	4.9	5.8	-13.3	-14.8
c. Maize	17.4	8.9	6.6	8.1	-25.0	-18.0
4. Total Pulses	**144.9**	**114.3**	**116.6**	**103.0**	**2.0**	**13.2**
a. Gram	92.8	78.3	82.2	70.7	5.0	16.2
b. Lentil	14.2	13.1	13.1	12.1	-0.3	8.4
c. Peas	8.8	7.5	8.2	7.2	10.2	14.7
d. Kulthi (Horse Gram)	2.2	3.7	3.1	3.9	-15.6	-19.5
e. Urad	8.9	3.8	3.4	3.5	-10.3	-3.0
f. Moong	9.9	1.4	0.9	0.9	-38.6	-2.2
g. Lathyrus	4.0	2.8	2.4	2.1	-15.5	11.4
I. Total Foodgrains (1+2+3+4)	**547.1**	**364.1**	**363.5**	**351.3**	**-0.2**	**3.5**
5. Oilseeds	**73.2**	**66.7**	**67.1**	**63.2**	**0.5**	**6.2**
a. Rapeseed & Mustard	59.4	59.5	61.8	57.4	3.9	7.7
b. Groundnut	7.3	2.6	2.1	2.3	-18.0	-8.1
c. Sunflower	2.4	1.2	0.6	0.6	-54.6	-9.9
d. Sesame	0.0	0.2	0.2	0.3	-19.6	-26.2
e. Safflower	1.2	0.6	0.4	0.3	-26.9	35.0
f. Linseed	2.7	2.3	1.8	2.1	-22.8	-12.4
All- Crops (1+2+3+4+5)	**620.3**	**430.8**	**430.6**	**414.4**	**-0.1**	**3.9**

Normal Area as on date: Average area during the corresponding period of 2014-15 to 2018-19.
Normal Area: Average area during the period of 2014-15 to 2018-19.
Note: Area figures are as per eye assessment of state Agriculture Departments.
Source: Ministry of Agriculture and Farmers' Welfare

slipped below a decadal high it had touched in the preceding month (Chart 11). The December 12 release of the index of industrial production for October indicated an expansion for the second consecutive month to its highest pace in the current financial year. Firms responding to the Reserve Bank's industrial outlook survey (IOS) in its 91st round were hopeful that the upturn that commenced in Q2:2020-21 would gain momentum. Their optimism was based on the availability of finance, coupled with a recovery in external demand and ongoing improvements in the job scenario.

Within the services sector, a marked improvement has been underway, with several indicators exhibiting sharp upticks. The services PMI for November at 53.7 expanded for the second consecutive month, driven by an increase in new domestic work intakes. The construction sector, in particular, exhibited distinct signs of improvement in Q3:2020-21. An important coincident indicator of construction activity – the consumption of steel – accelerated by 11.0 per cent in November, reversing the contraction of 2.6 per cent in October. In sync, cement production emerged out of contraction in October 2020 at 2.8 per cent and is expected to expand further in November. Trading activity indicated by E-way bills, remained in growth mode in November, but moderated *vis-à-vis* the high levels touched amidst festivals in the preceding month. Transportation services were strongly supported by a growth of 9.0 per cent in railway freight traffic, extending the expansion that began in August 2020. Passenger traffic remained on track, improving on a month-on-month basis out of the steep contraction imposed by the lockdown. According to the Investment Information and Credit Rating Agency (ICRA), there was a revival in domestic air travel demand as passenger traffic at 62.0 lakh in November 2020 registered a sequential growth of 19 per cent. With people increasingly preferring personal mobility to avoid contact, passenger vehicle sales registered an acceleration for the fourth consecutive month in November. Barring the leading manufacturer of passenger cars, all other original equipment manufacturers (OEMs) posted high growth during the month, with a significant contribution from rural sales. Vehicle registrations in November, however, reflected a more cautious optimism.

Chart 11: Purchasing Managers' Index (PMI)



Source: IHS Markit.

Inflation

CPI headline inflation eased to 6.9 per cent in November from 7.6 per cent a month ago, primarily on account of a moderation in food inflation by 1.3 percentage points on a sequential basis; however, inflation remained elevated and above the upper tolerance threshold. The high frequency food price data available for December so far (till December 16, 2020), from the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs), indicate some softening of price pressures in respect of onions, potatoes, tomatoes, *tur*, masoor, rice and wheat. Price increases in edible oils have continued unabated in December. Overall, on the basis of the DCA data, essential food prices increased by 0.5 per cent in December so far as compared to 2.0 per cent in November (Table 4).

Table 4: DCA Essential Commodity Prices

S. no	Commodities	Weight in CPI	₹ per Kg.			Month-over-month (per cent)		
			Dec-19	Nov-20	Dec-20*	Oct-20	Nov-20	Dec-20*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I	**Cereals (Rice + Wheat)**	**6.9**	**31.8**	**32.9**	**32.7**	**-0.2**	**0.5**	**-0.8**
	Rice	4.4	33.5	35.0	34.8	0.4	0.4	-0.7
	Wheat & Atta	2.6	29.0	29.3	29.1	-1.2	0.5	-0.9
II	**Pulses**	**2.0**	**83.0**	**97.4**	**97.1**	**5.8**	**1.9**	**-0.3**
	Tur/Arhar Dal	0.8	88.4	106.6	105.6	10.2	2.0	-0.9
	Urad Dal	0.3	96.4	106.4	107.3	5.0	2.4	0.8
III	**Edible Oils**	**3.0**	**106.6**	**124.6**	**128.8**	**1.7**	**2.6**	**3.3**
	Mustard Oil	1.3	113.7	132.7	137.0	1.7	3.1	3.3
	Refined Oils	1.3	93.0	109.9	114.5	1.8	2.5	4.1
IV	**Vegetables (POT)**	**2.2**	**46.6**	**48.0**	**42.7**	**12.9**	**8.6**	**-11.0**
	Potato	1.0	25.4	44.6	41.7	7.7	12.8	-6.4
	Onion	0.6	95.0	59.3	48.1	59.0	18.0	-18.9
	Tomato	0.6	29.0	41.2	38.3	-12.4	-9.3	-7.0
V	**Sugar**	**1.1**	**39.2**	**40.0**	**40.0**	**-0.4**	**-0.4**	**0.0**
VI	**Milk**	6.4	**44.9**	**47.1**	**47.3**	**0.1**	**0.4**	**0.5**
VII	**Weighted average price**	**22.9**	**59.2**	**64.8**	**65.1**	**2.1**	**2.0**	**0.5**

*: Based on prices during December 1- December 16, 2020.
Note: Weighted average price denotes average price of 22 essential food items weighted by their share in CPI basket.
Source: Department of Consumer Affairs, GoI and RBI staff estimates.

In the petroleum products category, excise duties and state taxes kept pump prices elevated. The firming up of international crude prices in the second fortnight of November has started to push up domestic pump prices on a daily basis from November 20, 2020. In December so far, petrol and diesel prices saw an increase of 2.4 per cent and 3.6 per cent respectively. LPG prices after remaining stable during July-November 2020, registered an increase of ₹100 per cylinder in December, dispelling the calm and exacerbating pressures on strained household budgets. Kerosene prices registered a further increase of around ₹1 per litre in December on rising international prices (Table 5).

A combination of rising international commodity prices and increasing pass-through to domestic manufactured goods and services prices, firms striving to recoup lost incomes by raising margins, and demand normalising is adding to core inflation pressures. In the manufacturing PMI for November, input prices have moved up further and will inevitably pass through into selling prices as slack in the economy reduces and demand gains traction. Consequently, output prices could strengthen beyond the hitherto moderate increases, and still weak pricing power that has characterised them so far. This was also visible in the CPI for November with CPI excluding food and fuel inflation remaining elevated at 5.8 per cent in November as against 5.9 per cent in October.

IV. Financial Conditions

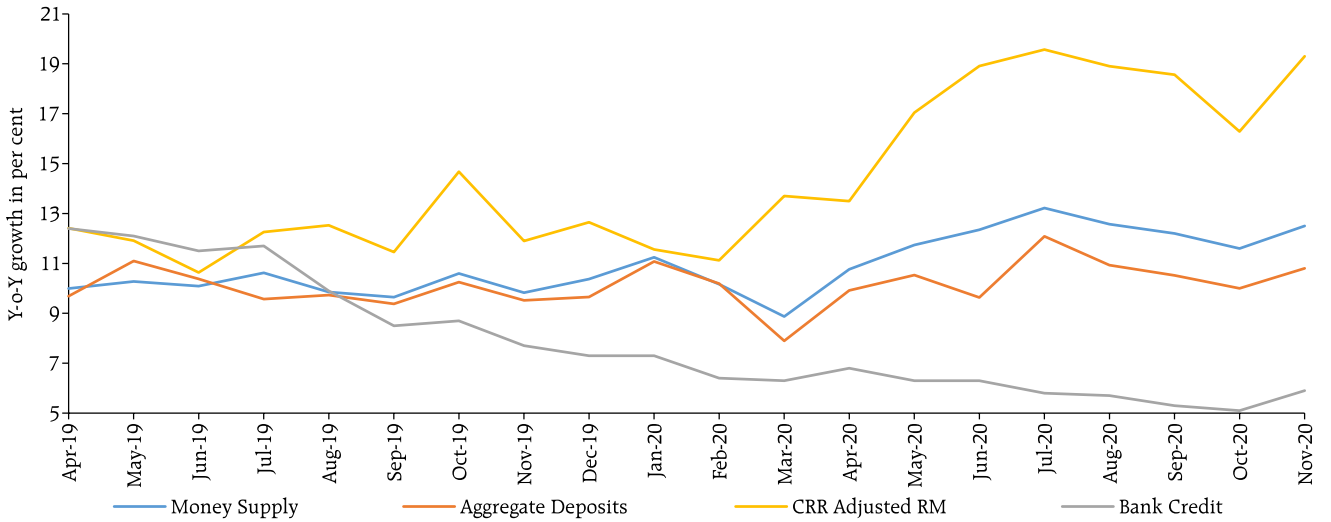
System liquidity expanded further in November 2020 as average daily net absorptions under the liquidity adjustment facility (LAF) increased to ₹5,63,589 crore, despite a substantial increase in currency in circulation (CiC) due to festival-related currency demand. The surplus liquidity was absorbed through overnight reverse repos, with total absorption placed at ₹6,76,413 crore as on November 30, 2020. As announced in the Statement on Developmental and Regulatory Policies on October 9, banks that had availed of funds earlier under targeted long-term repo operations (TLTRO and TLTRO 2.0) were given the option of reversing these transactions before maturity. Accordingly, banks repaid ₹37,348 crore. The Reserve Bank conducted one outright open market operation (OMO) purchase in State Development Loans (SDLs) and injected durable liquidity of ₹10,000 crore on November 5, 2020. With a view to distributing liquidity across the maturity spectrum of the yield curve, the Reserve Bank conducted three simultaneous purchase and sale of securities

Table 5: Petroleum Product Prices (Average of four major metros)

Item	Unit	Domestic Prices			Month-over-month (per cent)	
		Dec-19	Nov-20	Dec-20	Nov-20	Dec-20
Petrol	₹/litre	77.64	84.13	86.12^	0.3	2.4
Diesel	₹/litre	68.77	74.73	77.43^	0.6	3.6
Kerosene	₹/litre	28.80	22.17	23.21	3.3	4.7
LPG	₹/cylinder	699.88	604.63	704.63*	0.0	16.5

^: Based on prices during December 1-16, 2020
*: Applicable from December 15, 2020
Note: Average of prices charged by Indian Oil Corporation Limited (IOCL) in four major metros (Chennai, Delhi, Mumbai and Kolkata).
Source: IOCL, Petroleum Planning and Analysis Cell (PPAC), GoI and RBI staff estimates.

Chart 12: Monetary and Credit Aggregates



Note: Data pertain to last fortnight of every month for money supply, aggregate deposits and bank credit; and last reporting Friday of every month for reserve money.
Source: RBI.

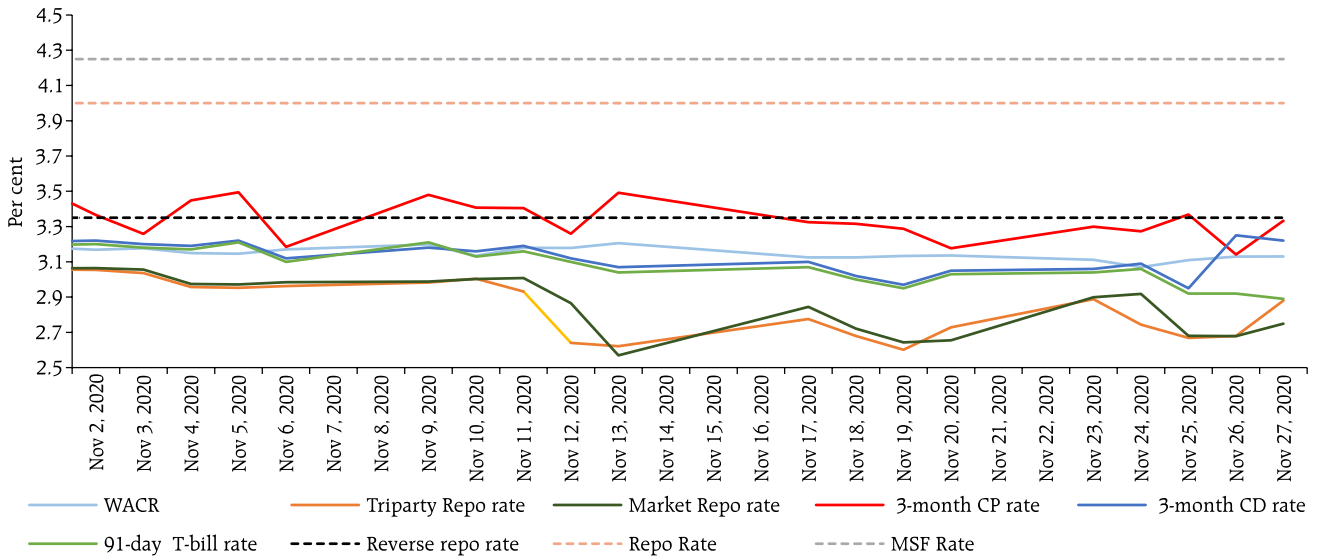
under open market operations (special OMOs) for ₹10,000 crore each on November 12, 19 and 26, 2020.

Monetary and credit conditions have eased during 2020-21 so far and will facilitate the revival of economic activity. Reserve money (RM), adjusted for the first-round impact of changes in the cash reserve ratio (CRR), increased by 19.3 per cent on y-o-y basis as on November 27, 2020 (11.9 per cent a year ago). With aggregate deposits recording a growth of 10.8 per cent for the fortnight ended November 20, 2020, money supply (M3) grew by 12.5 per cent (9.8 per cent a year ago) [Chart 12].

Scheduled Commercial Banks' (SCBs) credit to the commercial sector grew y-o-y by 5.8 per cent as on November 20, 2020, up from 5.1 per cent y-o-y growth in the last fortnight of the preceding month, driven largely by positive momentum. Reflecting the impact of TLTROs, scheduled commercial banks' investments in commercial paper, bonds/debentures and shares of corporate bodies during the year 2020-21 (up to November 20) increased by ₹850 crore as against a decline of ₹24,611 crore during the same period last year.

The surplus liquidity conditions in the banking system have pushed the money market rates further down in November. In the overnight uncollateralised segment, the weighted average call rate (WACR) has dipped below the reverse repo rate from the last week of October 2020. In the collateralised segments – market repo and tri-party repo – rates trailed below the call rate by 29 basis points (bps) and 32 bps, respectively. In the near-term segments, *i.e.*, certificates of deposit and 91-day treasury bills, rates remained at sub-reverse repo rate levels. The discount rate on commercial paper has dipped below the LAF reverse repo rate on many occasions and touched a low of 3.14 per cent on November 26, 2020 (Chart 13). The volatility in the overnight money market, which had peaked in the month of March 2020, has come down in the last couple of months (Chart 14).

Chart 13: Money Market Rates

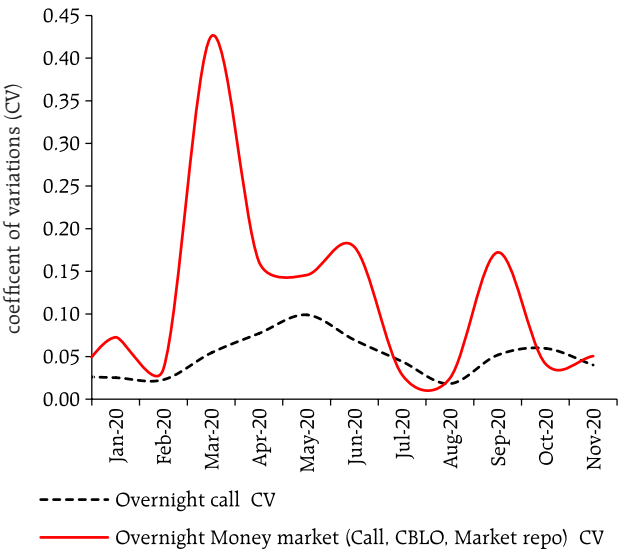


Source: RBI and Bloomberg.

The surplus liquidity resulted in moderation of yields across financial markets, particularly in money and corporate bond markets (Table 6). The yield on 10-year G-sec benchmark (5.77 GS 2030) closed at 5.91 per cent on November 27, 2020. The cut off yield of the new 10-year G-sec benchmark was determined at 5.85 per cent in the primary market auction held on November 27, 2020, which was lower than the traded yield on the existing 10-year benchmark.

With the continuous softening of financial conditions driven by liquidity and other measures taken by the Reserve Bank, corporate bond spreads receded to pre-COVID levels across most of the rating categories (Table 7).

Chart 14: Volatility in Overnight Money Market



Source: RBI.

Table 6: Financial Markets - Rates and Spread

Instrument	Interest Rates (per cent)			Spread (bps) (over corresponding risk-free rate)		
	As on Oct 29, 2020	As on Nov 27, 2020	Variation (in bps)	As on Oct 29, 2020	As on Nov 27, 2020	Variation
(1)	(2)	(3)	(4 = 3-2)	(5)	(6)	(7 = 6-5)
CP (3-month)	3.89	3.33	-56	71	44	-27
Corporate Bonds						
(i) AAA (1-yr)	4.00	3.86	-14	36	30	-6
(ii) AAA (3-yr)	4.90	4.64	-26	28	17	-11
(iii) AAA (5-yr)	5.60	5.59	-1	22	28	6
(iv) AA (3-yr)	5.84	5.50	-34	122	103	-19
(iv) BBB-minus (3-yr)	9.79	9.47	-32	517	500	-17
10-yr G-sec	5.88	5.91	3	-	-	-

Sources: CCIL; F-TRAC; FIMMDA; and Bloomberg.

Table 7: Corporate Bond Spread

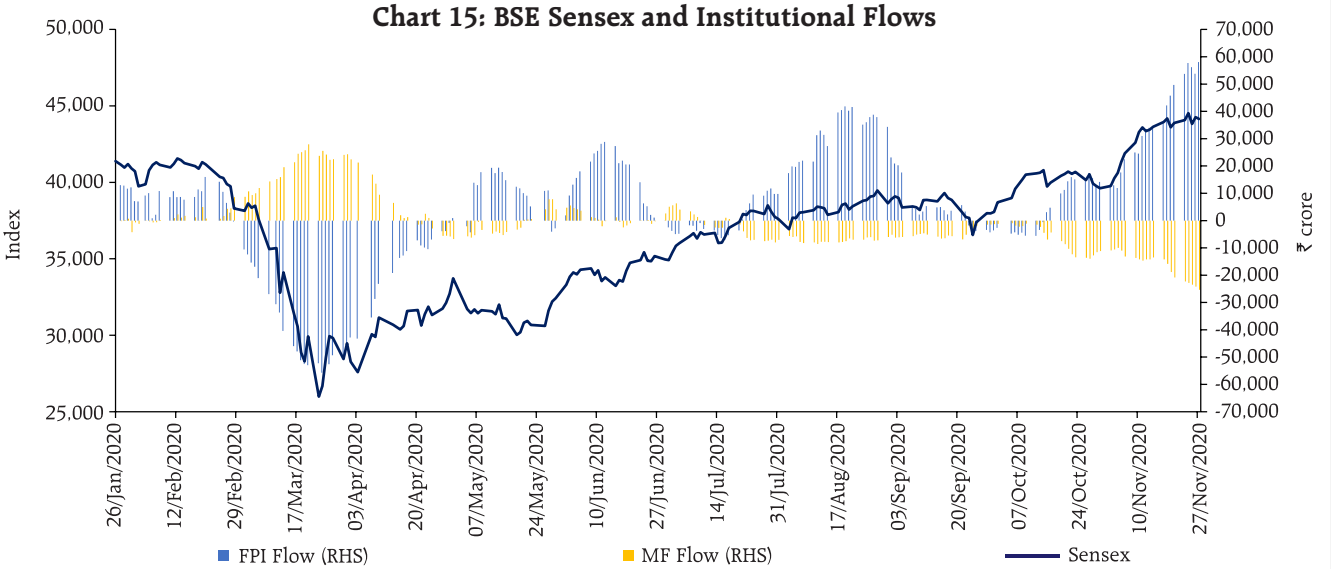
Ratings	3-year Corporate Bond Spread				Variation		
	Pre-COVID			Post-COVID			
	31-Dec-19	31-Jan-20	28-Feb-20	27-Nov-20			
	1	2	3	4	5= (4-1)	6= (4-2)	7= (4-3)
							(Basis Points)
AAA	59	60	90	17	-42	-43	-73
AA+	103	104	128	69	-34	-35	-59
AA	136	140	167	103	-33	-37	-64
AA-	175	178	207	150	-25	-28	-57
A+	315	278	307	300	-15	22	-7
A	345	328	357	325	-20	-3	-32
A-	425	378	407	400	-25	22	-7
BBB+	475	403	432	425	-50	22	-7
BBB	500	428	457	450	-50	22	-7
BBB-	550	453	482	500	-50	47	18

Note: The period after declaration of COVID-19 as pandemic on March 11, 2020 by the World Health Organisation (WHO) is considered as post-COVID.
Source: FIMMDA.

The transmission of policy repo rate changes to deposit and lending rates of scheduled commercial banks has improved since March 2020, reflecting the combined impact of the liquidity surplus, the accommodative monetary policy stance, the introduction of external benchmark-based pricing of loans, weak credit demand conditions and the lagged impact of policy rate cuts. The median term deposit rate, which reflects the prevailing card rates, has registered a sizable decline of 143 bps during March to November 2020. The 1-year median MCLR declined by 90 bps in the same period.

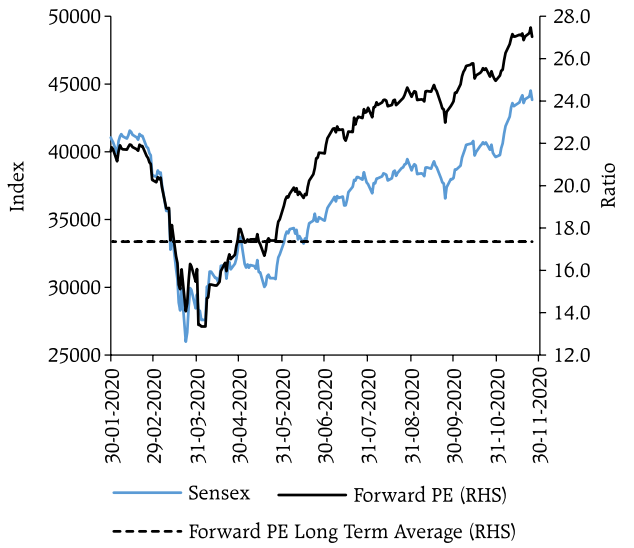
The Indian equity market staged a V-shaped recovery with the BSE Sensex increasing by 69.9 per cent up from its low of 25,981 on March 23, 2020 to close at 44,150 on November 27, 2020. Domestic equity markets scaled fresh highs in November 2020, supported by encouraging reports on the vaccine, the outcome of the US elections and stimulus measures announced by the Government (Chart 15). This has

Chart 15: BSE Sensex and Institutional Flows



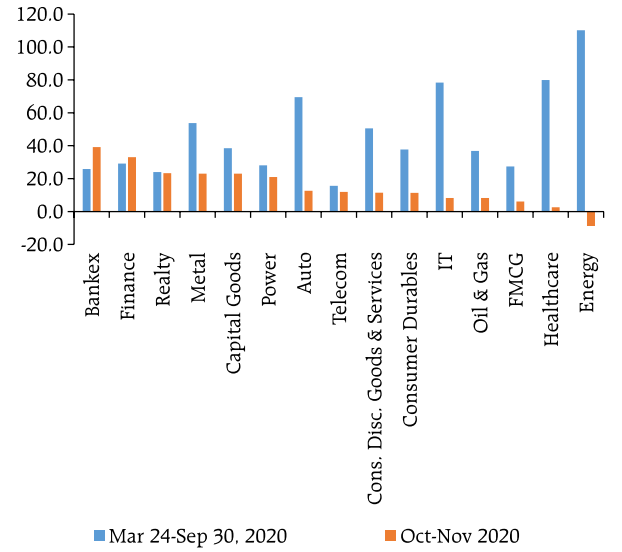
Note: FPI and Mututal Fund (MF) investments are represented on 15 days rolling sum basis.
Source: Bloomberg.

Chart 16: Equity Valuation



Source: Bloomberg.

Chart 17: BSE Sectoral Indices



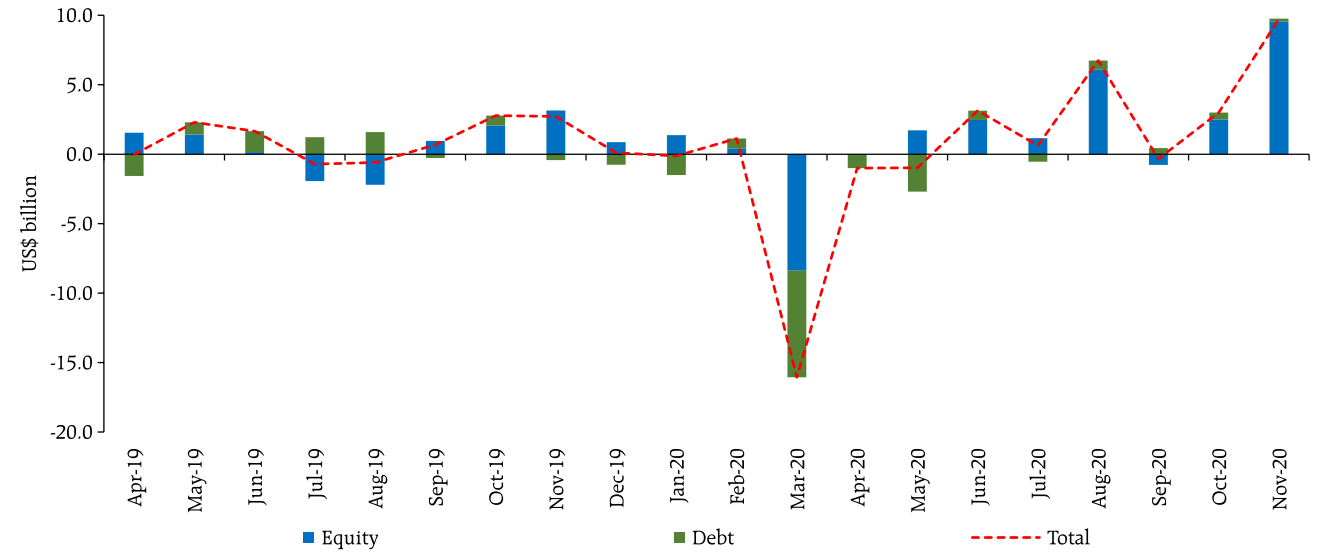
Source: Bloomberg.

raised the forward Price-to-Earnings (PE) ratio to 27.2 at end-November 2020 from its long-term average of 17.4 (Chart 16).

The rally in equities was driven by a surge in banking and financial sector stocks following better than expected Q2:2020-21 earnings results and increasing prospects of swift recovery (Chart 17). Foreign portfolio investment (FPI) inflows in November 2020 were at an all-time high, largely driven by equity purchases of US$ 9.6 billion, much higher than US$ 2.5 billion in the preceding month (Chart 18).

In the foreign exchange market, the Indian rupee (INR) depreciated modestly by 1.0 per cent against

Chart 18: Net Foreign Portfolio Investment



Source: National Securities Depository Limited (NSDL).

the US dollar during November 2020 over October 2020, although it ended the month 2.2 per cent above its level at end March 2020. In terms of both the 36-currency trade-weighted nominal and real effective exchange rate indices, the INR depreciated by 1.9 per cent in November 2020 from its level a month ago.

A relatively narrow trade deficit along with robust capital flows led to accretion in reserves to the tune of US$ 97.0 billion since end-March 2020. At the end of November 2020, reserves were at a level of US$ 574.8 billion, equivalent to 16.8 months of imports and alternatively, more than fully covering India's outstanding external debt at the end of June 2020 (Chart 19).

Digital transactions exhibited a sustained recovery and momentum picked up in November 2020, supported by both wholesale and retail transactions (Table 8). In the retail segment, national electronic funds transfer (NEFT) transactions volume grew 24.6 per cent y-o-y in November 2020, much higher than the growth (13.9 per cent) recorded a month ago. The growth in the value of NEFT transactions in November 2020 (27.9 per cent) was higher than that recorded in October 2020 (20.1 per cent). Unified payment interface (UPI) transactions surged to approximately 2.2 billion in November 2020, maintaining momentum in both volume and value terms. Among other digital transaction modes, national electronic toll collection (NETC) held on to a buoyant growth trajectory and immediate payment service (IMPS) showed stronger growth in November 2020 than in the previous month. In the wholesale segment, real time gross settlement (RTGS) transactions recorded acceleration in volume terms.

Chart 19: Foreign Exchange Reserves and Import Cover

Note: Figures on import cover for September and November 2020 are based on balance of payments data released for Q1:2020-21 and earlier quarters.
Source: Reserve Bank of India.

Table 8: Payment Transactions in 2020-21

(in ₹ crore)

	RTGS	NEFT	UPI	IMPS
Apr-20	64,43,653	13,06,406	1,51,141	1,21,141
May-20	70,41,869	14,81,750	2,18,392	1,69,402
Jun-20	86,51,978	19,06,586	2,61,835	2,06,951
Jul-20	83,35,279	19,63113	2,90,538	2,25,775
Aug-20	72,92,380	19,30,552	2,98,308	2,35,137
Sep-20	94,89,066	21,65,515	3,29,032	2,48,662
Oct-20	84,96,046	22,35,389	3,86,107	2,74,645
Nov-20	79,87,655	22,18,252	3,90,999	2,76,459

Source: RBI.

V. Conclusion

Abstracting from the inherent flux in high frequency indicators, the underlying trend would reveal that the pick-up in momentum of economic activity that commenced with the onset of the second half of 2020-21 is sustained. The absence of the dreaded 'second wave' of pandemic in India so far has imparted elevation to this momentum in an environment of supportive macroeconomic policies, spurring a faster unlock and normalisation of the economy.

Already, contractions forecast by various agencies for the year as a whole are being trimmed, and if the current momentum is maintained, the bounce back expected in the last quarter of the year may be stronger than postulated under baseline assumptions. With the policy emphasis now shifting towards the more durable drivers of the economy, it is apposite now for private investment to turn its focus away from precautionary and deleveraging

considerations to capex, capacity utilisation and building of new capacities. Both experience and empirical evidence have shown that recoveries led by investment turn out to be durable and lift both consumption spending and exports in their wake. The reforms in the domain of agricultural marketing and labour codes will bolster the efficiency and productivity gains.

Financing conditions are conducive. In the time of the pandemic, financial saving of households and corporations have risen, waiting to be intermediated into productive investments rather than passive holdings of Statutory Liqidity Ratio (SLR) and non-SLR paper. With economic activities turning around, bank credit is slowly gaining traction. Forward earnings point to an improved outlook for companies. The supply of foreign saving is increasing, and foreign investment is upbeat on India. 'Invest India' – the national investment promotion and facilitation agency, emerged as the winner of the 2020 United Nations Investment Promotion Award. Also, financial conditions embodied in interest rates are perhaps at their easiest in decades. Pandemics spread fear and risk aversion, but they also uncover new opportunities and new avenues for animal spirits.

At the same time, efforts need to be redoubled to excoriate the 'worm in the apple' – inflation – before it hurts the impulses of growth that are taking root. Efficient, effective and timely supply management, including checking runaway retailer margins and reducing the incidence of indirect taxes on consumers, can break the back of the inflation pressures before they incipiently broaden and work against the intent of fiscal and monetary stimuli. Well-coordinated country-wide logistics would usher in a smooth but swift distribution of vaccines up to the last mile. Although still significant headwinds persist on the path to a durable recovery, steadfast efforts by all stakeholders could help in recouping lost incomes and/or putting back India on a faster growth trajectory.

*Indicator of Economic Activity to Capture Real-time Spatial Momentum**

The coincident index (CI)[1], constructed based on four daily indicators, captures the real-time momentum in economic activity at sub-national as well as national level. CIs across all regions plunged downward sharply following the lockdown in last week of March, reflecting sharp fall in the economic activity. CIs momentum shows that different regions have observed a varying pace of recovery with the gradual unlocking of the economy starting from June 2020. Notably, CIs for states in all regions registered sharp upturn in October. Though some moderation was recorded in the first half of November, momentum remained positive and reversed in second-half in most states. Furthermore, all-India CI has robust positive and statistically significant relationship with growth in industrial output.

Introduction

Monitoring economic activity through high frequency indicators has become paramount for the proactive public policy over the years. During normal times, the economic indicators with monthly and quarterly frequency, such as industrial activity, automobile sales, cargo handling and air passenger traffic, *etc.*, are used to capture the underlying evolving economic impulses. But monthly and quarterly frequency indicators are unable to provide the required granular real-time information about the swiftly evolving economic dynamics during the period that is characterized by high level of uncertainty and rapid changes. In recent times, the COVID-19 pandemic period has been such that the economic activity witnessed a cliff event with sharp contraction across the board, reflecting stringent containment measures including lockdown. Even publishing regular data became a challenging task during the COVID-19 pandemic due to technical and logistical issues. Hence, COVID-19 pandemic has completely altered how policymakers monitor economic data due to rapidly evolving economic activity with shortened policy response time and diverging sub-national trends. Since economic changes have been rapid and profound during COVID-19 pandemic, real-time spatial information on the economic activity became critical to draw appropriate inferences for swift and nimble-footed policy decisions. In this context, coincident indices (CIs) based on high frequency data have come in handy to gauge the momentum in economic activity during the COVID-19 pandemic (Federal Reserve Bank of Philadelphia[2] and Federal Reserve Bank of New York[3]). CIs are computed by combining indicators over time and space. The Federal Reserve Bank of New York uses ten indicators with weekly frequency to constitute weekly economic index (WEI), while the Federal Reserve Bank of Philadelphia combines four state-level variables to construct a monthly coincident index for each of the 50 states.

Economic activity in India plunged in the first quarter (Q1) of 2020-21 with stringent nationwide lockdown imposed in the last week of March and extended subsequently. This resulted in Indian economy registering its sharpest decline of 23.9 per cent in real GDP during Q1:2020-21. The gradual unlocking process began in the first week of June 2020 and thereafter, economic activity started gaining some momentum. In Q2:2020-21, states also

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1 Coincident Index and Indicator are used interchangeably in this article.

2 *https://www.philadelphiafed.org/research-and-data/regional-economy/indexes/coincident*

3 *https://www.newyorkfed.org/research/policy/weekly-economic-index#/*

implemented localised lockdowns and widely varying rules governing economic activity. The real GDP, however, posted a sharp sequential improvement and the contraction moderated to 7.5 per cent in Q2. With momentum gaining traction, there is optimism of faster than expected recovery. In such circumstances, monitoring the economic indicators at high frequency and with a spatial distribution assumes great importance for policymakers including the central bank. In this context, this study aims to capture the dynamics of economic activity at state level in India by constructing a Coincident Indicator (CI) with daily high frequency variables. CI is constructed with four indicators representing a mix of demand and supply dynamics and based on availability of data at daily frequency at the state level: (i) total vehicle registrations; (ii) electricity consumption; (iii) air quality index; and iv) Google and Apple mobility data. The study is broadly divided into six parts. Section II provides some guidance on the subject from the existing literature. The details about data and methodology are explained in Section III, while Section IV provides analytical insights on momentum in region-wise CI. The relationship between all India CI and index of industrial production (IIP) is examined in Section V. Section VI contains the concluding observations. As alluded to earlier, the novelty of this study is in capturing the momentum in economic activity at sub-national level with daily frequency data.

II. Guidance from Literature

Several studies have used Dynamic Factor Model (DFM) to extract prime factors for constructing CI at sub-national as well as national levels (Geweke, 1977; Sargent and Sims, 1977). Using DFM, studies have examined the empirical relationship in the post-war US between aggregate business cycle and various macroeconomic variables, *viz.*, production, interest rates, prices, productivity, sectoral employment, investment, income, and consumption (Stock and Watson, 1998). They carry out this exercise by examining the strength of the relationship between the aggregate cycle and cyclical components of individual time series, whether individual series lead or lag the cycle, and whether individual series are useful in predicting aggregate fluctuations.

Federal Reserve Bank of Philadelphia estimate a set of CIs for the 50 states of the US as a monthly measure of economic activity to examine several state and regional issues. They estimate DFM with three monthly variables (non-agricultural payroll employment, unemployment rate and average hours worked in manufacturing) and one quarterly variable – real wage and salary disbursement. These indices have been used to compare the timing of state business cycles, to estimate the effect of regional economic activity on bank performance and to estimate the impact of state economic activity on tax revenues. Absent monthly state level GDP, these indexes help track state level economic activity (Crone and Matthews, 2005). On the other hand, the Federal Reserve Bank of New York uses 10 series with weekly frequency, broadly divided into three categories-consumer-focused, labour market and industrial series, to prepare weekly economic index (WEI) to capture the real activity momentum that monthly and quarterly indicators are unable to do (Lewis *et al*, 2020). Since WEI targets the year-on-year (y-o-y) percentage change in the real economic activity, they have transformed series into 52-week percentage changes (y-o-y), which also helped in eliminating seasonality that prevails in weekly series to a large extent. They standardise all the series before using DFM to extract the first principal component to construct WEI. To measure the predictive power and nowcasting ability, they regress y-o-y growth in quarterly GDP on the quarterly WEI as well as y-o-y growth in monthly industrial production (IP) on the monthly WEI, and find results very encouraging.

The use of DFM to prepare a publicly available database that tracks economic activity at granular

level in real time using anonymised data from private companies has also been attempted (Chetty *et. al.*, 2020). Authors report daily statistics on consumer spending, business revenues, employment rates, and other indicators disaggregated by ZIP code, industry, income group and business size. With these data, they analyse how COVID-19 affected the economy at heterogenous levels. They find that high income individuals cut spending significantly mid-March 2020, especially in areas with high rates of COVID-19 infection and in sectors that require in-person interaction. The spending cut led to decline in revenues of small businesses that cater to high income households. This resulted in job losses among low wage workers in affluent areas.

III. Data and Methodology

Data

We use 4 variables with daily frequency, spanning 14 major states which together contribute about 82 per cent to total national gross value added (GVA). The variables considered are: (i) total vehicle registrations (Vahan Dashboard of Ministry of Road Transport and Highways, Government of India); (ii) electricity demand available at Power System Operation Corporation Limited (POSOCO); (iii) air quality index given by Central Pollution Control Board (CPCB); and iv) Google mobility data. The sample period of all variables except Google mobility (which is available from January 2020) is from January 1, 2018 to December 1, 2020 (Annexure 1). Besides availability at high frequency, the variables present a mix of both demand and supply conditions. While vehicle registrations are an indicator of consumer demand, they also reflect economic activity in trade and transportation sub-segment of services sector. Electricity consumption is an indicator of commercial and industrial activity, although it also incorporates some degree of agricultural and domestic energy demand. Air quality complemented with traffic data gives an indicator of manufacturing activity as well movement of labour force, an indicator of services activity. Choice of states is guided by data availability and only those states are chosen where data for all four variables is available (Table 1).

First three variables are transformed into y-o-y percentage change on a weekly basis starting from 1st January (January 1-7 is denoted as Week 1, January 8-14 as Week 2 and so on) as underlying data contains high level of seasonality (following methodology of Lewis *et al*, 2020). Using weekly data also helps control the day of the week effect. Google mobility data is available in the form of deviation from

Table 1: Data and GVA Share[4]

States	GVA Share (per cent)	Vahan Registration	Electricity	Air quality	Google Mobility
Andhra Pradesh	4.8	×	✓	✓	✓
Assam	1.8	✓	✓	✓	✓
Bihar	3.1	✓	✓	✓	✓
Chhattisgarh	1.8	✓	✓	×	✓
Delhi	4.0	✓	✓	✓	✓
Gujarat	7.8	✓	✓	✓	✓
Haryana	3.6	✓	✓	✓	✓
Jharkhand	1.6	✓	✓	×	✓
Karnataka	8.0	✓	✓	✓	✓
Kerala	4.2	✓	✓	✓	✓
Maharashtra	13.8	✓	✓	✓	✓
Odisha	2.6	✓	✓	✓	✓
Punjab	2.8	✓	✓	✓	✓
Rajasthan	5.2	✓	✓	✓	✓
Tamil Nadu	8.8	✓	✓	✓	✓
Uttarakhand	1.3	✓	✓	×	✓
Uttar Pradesh	8.8	✓	✓	✓	✓
West Bengal	6.2	✓	✓	✓	✓
Himachal Pradesh	0.8	✓	✓	×	✓
Telangana	4.5	×	✓	✓	✓
Madhya Pradesh	4.5	×	✓	✓	✓

Source: MoSPI, Vahan Dashboard, POSOCO, CPCB, Google.

[4] Data for some states is not available on Vahan platform while a few states have no cities in the daily AQI bulletin released by CPCB. The (x) sign is used denote such unavailability of data. For 2019, due to unavailability of google mobility data, 3-variable indicator is constructed later in the article.

baseline (5-week period January 3- February 6, 2020). Furthermore, all series have been normalised using standard methodology – subtracting from mean and dividing by standard deviation[5].

Methodology

Dynamic Factor model (DFM) is used widely to derive the principal factors that explain the highest variation in the underlying variables. We also apply DFM to summarise information contained in these four high frequency variables based on methodology popularised by Stock and Watson (1998). Using Factor Analyzer Python module, data set has been summarised into one factor for each state.

In DFM, the N variables (x_{it}) (i = 1, …, N) are assumed to be the sum of two unobservable orthogonal components, *viz.* factors that are common to the set of variables, (y_{it}) and an idiosyncratic component (z_{it}) at each time period (t=1……..T).

$$x_{it} = y_{it} + z_{it}$$

The component (y_{it}) is obtained by extracting r common factors (F_{jt}), j = 1,…, r from all of the variables present in the data set while the idiosyncratic component (z_{it}) covers the shocks specific to each of the variables.

$$x_{it} = \lambda_{i1}F_{1t} + ….. + \lambda_{ir}F_{rt} + z_{it}$$

The loadings (λ_{ij}) for i = 1,…, N and j = 1,…, r, represent the contributions of the variable i to the common factor (F_t).

At the outset, we test that our dataset is not an identity matrix by performing Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Dziuban and Shirkey, 1974; Kaiser, 1970). Bartlett test is significant with null hypothesis[6] rejected at 1 per cent significance level and KMO value of greater than 0.5 suggests that the data can be used to perform dynamic factor analysis.

We use maximum likelihood (ML) method to fit factors to the observed data. ML determines the factor loading and unique variance estimates that are most likely to have produced the observed data (Winter & Dodou, 2012). Visual scree plot analysis is used to decide on the number of factors to be retained for our data (Zoski and Jurs, 1996) (Annexure 2). Using scree plots while maintaining uniformity, single factor DFM is used in this article for all states. Table 2 gives KMO values for data of each state and factor loadings for variables used in the DFM models.

Electricity demand and Google mobility series, being relatively stable, have positive loadings in DFM for all states. Vahan registrations and air quality series, being very volatile, have high divergence in loadings for different DFM for different states.

Table 2: Factor Loadings

States	KMO value	Vahan Registration	Electricity	Air quality	Google Mobility
Assam	0.6	0.75	0.33	-0.09	0.78
Bihar	0.53	0.61	0.35	-0.13	0.67
Delhi	0.71	0.81	0.5	-0.02	0.88
Gujarat	0.6	-0.09	0.69	0.93	0.13
Haryana	0.7	-0.07	0.69	0.82	0.25
Karnataka	0.6	0.81	0.6	0	0.88
Kerala	0.6	0.52	0.73	0.07	0.8
Maharashtra	0.64	0.67	0.78	0.06	0.93
Odisha	0.6	0.68	0.39	0.02	0.66
Punjab	0.56	-0.13	0.86	0.87	0.38
Rajasthan	0.57	-0.07	0.8	0.71	0.41
Tamil Nadu	0.71	0.84	0.75	0.08	0.87
Uttar Pradesh	0.59	-0.05	0.81	0.73	0.48
West Bengal	0.57	0.52	0.36	-0.07	0.69

Source: RBI staff estimates.

[5] $Z_i = \frac{x_i - \bar{x}}{s}$

Where

x_i is a data point (x_1, x_2…x_n), $\bar{x}$ is the sample mean and s is the sample standard deviation.

[6] The test statistic X^2 as defined in Bartlett (1951) is $X^2 = -[(n-1) - (2k+5)/6] \cdot log(|R|)$ where n is the number of observations, k the number of variables, and R the correlation matrix of the data supplied in x. $|R|$ is the determinant of R.

Bartlett's χ^2 is asymptotically χ^2-distributed with $df = k\,(k-1)/2$ under the null hypothesis.

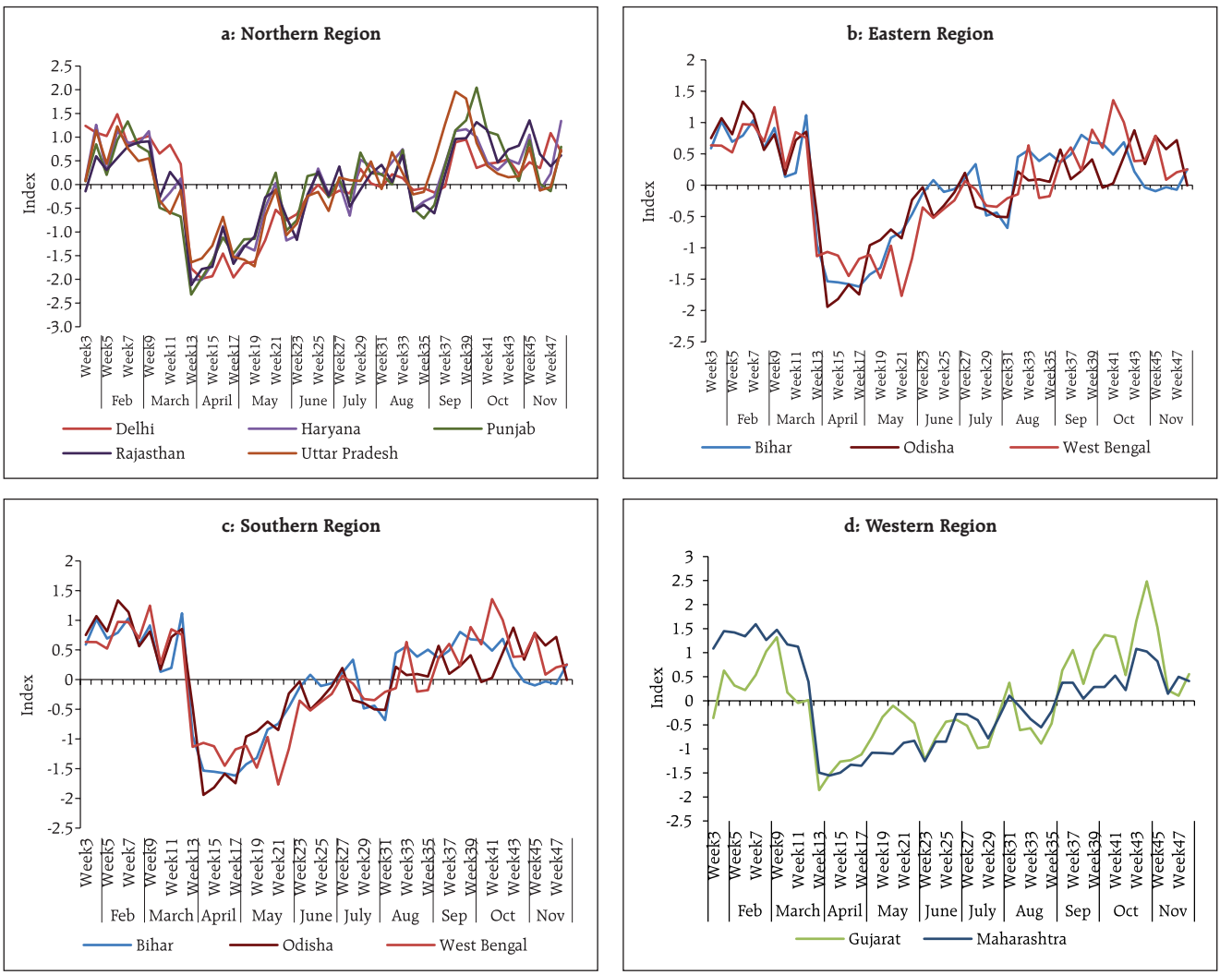
Further, 3 variable specification of the model is also constructed for the states by extending indicator backward for 2019. Due to unavailability of Google mobility data, other 3 variables are used to generate a longer series of real indicator of economic activity.

IV. Analysis of Empirical Results

The CIs are constructed using single-factor DFM for each of 14 states. The premise of constructing CI using DFM is to create a single smooth indicator of economic activity for the states using the four input variables. Single-factor based CI constructed using factor loadings as weights is taken as representative of economic activity in that state. Subsequently, all India CI is computed by taking a weighted average of state-wise CI using states' GVA shares as weights. States have been geographically divided into four regions. The region-wise CI of states is depicted in Chart 1 below. As per CIs, states across all the regions saw a sharp fall in economic activity in the last week of March following the announcement of nationwide lockdown. Subsequently, CIs of all regions exhibited recovery, *albeit* with intermittent downward movements.

While different regions have seen different pace of recovery, northern region registered first signs of positive momentum in July before a sharp upturn

Chart 1: Momentum Indicator of Economic Activity (CI) – Region-wise



Source: RBI staff estimates.

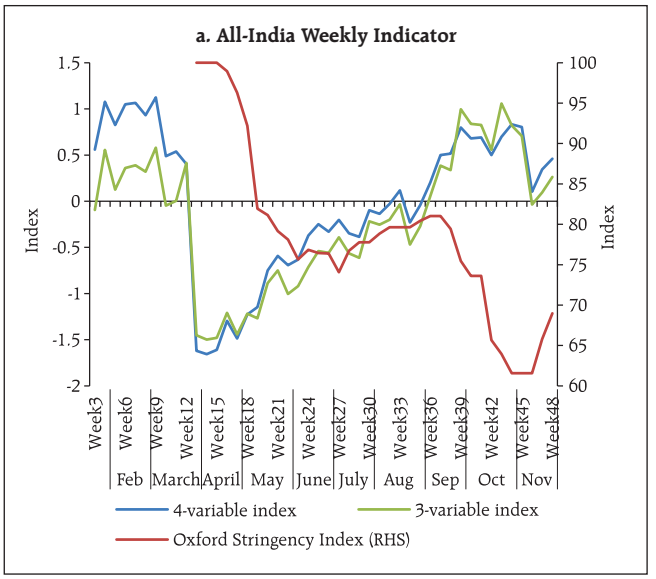
again in September. The momentum in Northern region remained upbeat in October and first week of November. CIs moderated in few northern states during second and third week of November before picking up again in last week. The CIs for the Eastern region shows a slow and steady recovery during August and September. Among Eastern states, West Bengal has registered sharp upturn in October and sustained positive momentum in November. While Bihar registered some moderation, momentum in Odisha remained robust in the first-half of November.

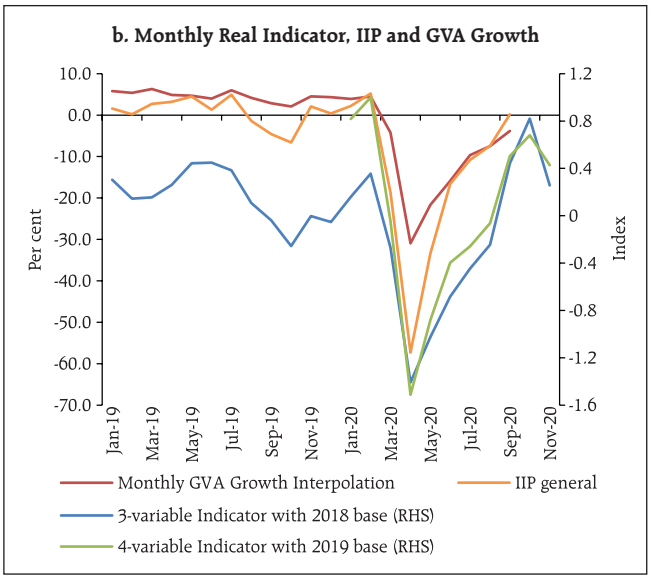
Southern region, which exhibited first sign of positive momentum in August before some moderation in September, picked up again in October. A temporary dip in the momentum during the second week of November reversed quickly in the second half of the month. Western region states lagging other regions, saw first sign of sustained positive momentum in CIs during September, which continued in October and November. Notably, CIs for states in all regions registered sharp upturn in October. Even though some moderation was recorded in November, momentum remained positive and reversed in second half in most of the states.

All-India CI, constructed as a weighted average of state CIs by using the shares of states in overall GVA as weights, captures the collapse in activity in Q1 and subsequent recovery (Chart 2.a). The all-India combined indicator also reflects the gradual opening of the economy as indicated by Oxford Stringency Index and provides a consistent real time assessment of economic activity at the national level. Weekly all-India indicator has shown some moderation in second week of November after peaking in last week of October. Dip in momentum, however, reversed in second half of November despite imposition of new restrictions (reflected by increase in Oxford stringency index) like night curfews by few states.

To compare with growth in GDP and industrial output (IIP), we use the 3-variables specification of the CI (due to non-availability of data on Google mobility before 2020) and extend our analysis period backward up to January 2019 (*i.e.* sample period from January 2019 to November 2020). It is found that CI based on 3-variables specifications also broadly shows similar trends for 2020 (Chart 2b). Furthermore, both the 3-variables and 4-variables indicators exhibit co-movement with IIP growth.

Chart 2: All India Momentum Indicator of Economic Activity (CI)





Source: MoSPI, University of Oxford, RBI staff estimates.

V. Relationship with Macroeconomic Variables

We further attempt to examine the empirical relationship between CI based on 3-variables and key macroeconomic growth variables to ascertain the utility of CI for public policy purpose. In view of data limitation, we empirically investigate the association of CI with the growth in IIP. As a first step, the association of CI with 12-month percentage change in IIP (y-o-y growth) is measured by computing correlation and it could be seen that there exists high level of correlation between two set of variables over the sample period from January 2019 to September 2020 (Table 3). The Chart 2b also displays a clear relationship between 3-variables CI and y-o-y growth in IIP.

Next, after checking the stationarity of the series using Augmented Dickey-Fuller unit root tests, we regress IIP growth on 3-variables CI over the sample period January 2019 to September 2020 with the following specification:

$$IIP_t = C + \beta CI_t + Dummy + \varepsilon_t$$

Where IIP_t is 12-months percentage change in IIP and CI_t is the average of all-India CI. The results of the two specifications of the regression are furnished in Table 4 below. The results show positive relationship between IIP growth and 3-variables CI indicator with coefficient significant at 1 per cent level in both specifications. In specification 1, we have used Newey-West estimator that provides Heteroskedasticity and Autocorrelation-Consistent (HAC) Standard Errors. In specification II, a dummy is included to account for sharp negative shock in April 2020 due to nationwide lockdown. Furthermore, the results of both regressions show that CI explains about 87 percent and 93 per cent of variation in IIP growth, respectively (adjusted R^2 =0.87 and 0.93).

Table 3: Correlation Matrix

	IIP Growth (Jan 2019-Sep 2020)	IIP Growth (Jan 2019-Mar 2020)	IIP Growth (Jan 2019- Sep 2020 excluding Apr 2020)
3 variables Indicator	0.93	0.79	0.92

Table 4: OLS Regression
(Dependent Variable – IIP growth)

	(1)	(2)
Constant	-4.54*** (1.32#)	-3.81*** (0.93)
3 variable Indicator	28.62*** (4.02#)	22.59*** (2.39)
Dummy		-21.96***
Adjusted R^2	0.87	0.93

Notes: 1. ***, **, & * denote statistical significance at 1 per cent, 5 per cent, & 10 per cent, respectively.
2. Figures in parentheses are standard errors.
# denotes HAC standard errors (Newey-West fixed Bandwidth=3.00)

VI. Conclusion

The CIs, constructed based on four daily indicators, captures the real-time momentum in economic activity at sub-national as well as national level during the current pandemic. CI across all regions plunged downward sharply following the lockdown in the last week of March, reflecting sharp fall in the economic activity. CI momentum shows that different regions have observed a varying pace of recovery with the gradual unlocking of the economy from June 2020. Each region has experienced intermittent ups and downs depending upon relaxation and tightening of restrictions necessitated by the evolving COVID-19 infections. The Northern region led the recovery in July and August followed by some signs of momentum in Southern and Eastern states. Western region remained behind other regions in the recovery curve but has shown positive momentum September onwards. Overall, all-India CI shows continued sequential improvement in September and October suggesting signs of robust recovery. Despite moderation in November, momentum of economic activity reversed in second half and remained positive.

Furthermore, CI has robust positive and statistically significant relationship with growth in industrial output. Since the constructed CI is providing

a real-time assessment of economic activity both at the national and sub-national levels, it could provide greater insights for the real-time policy making.

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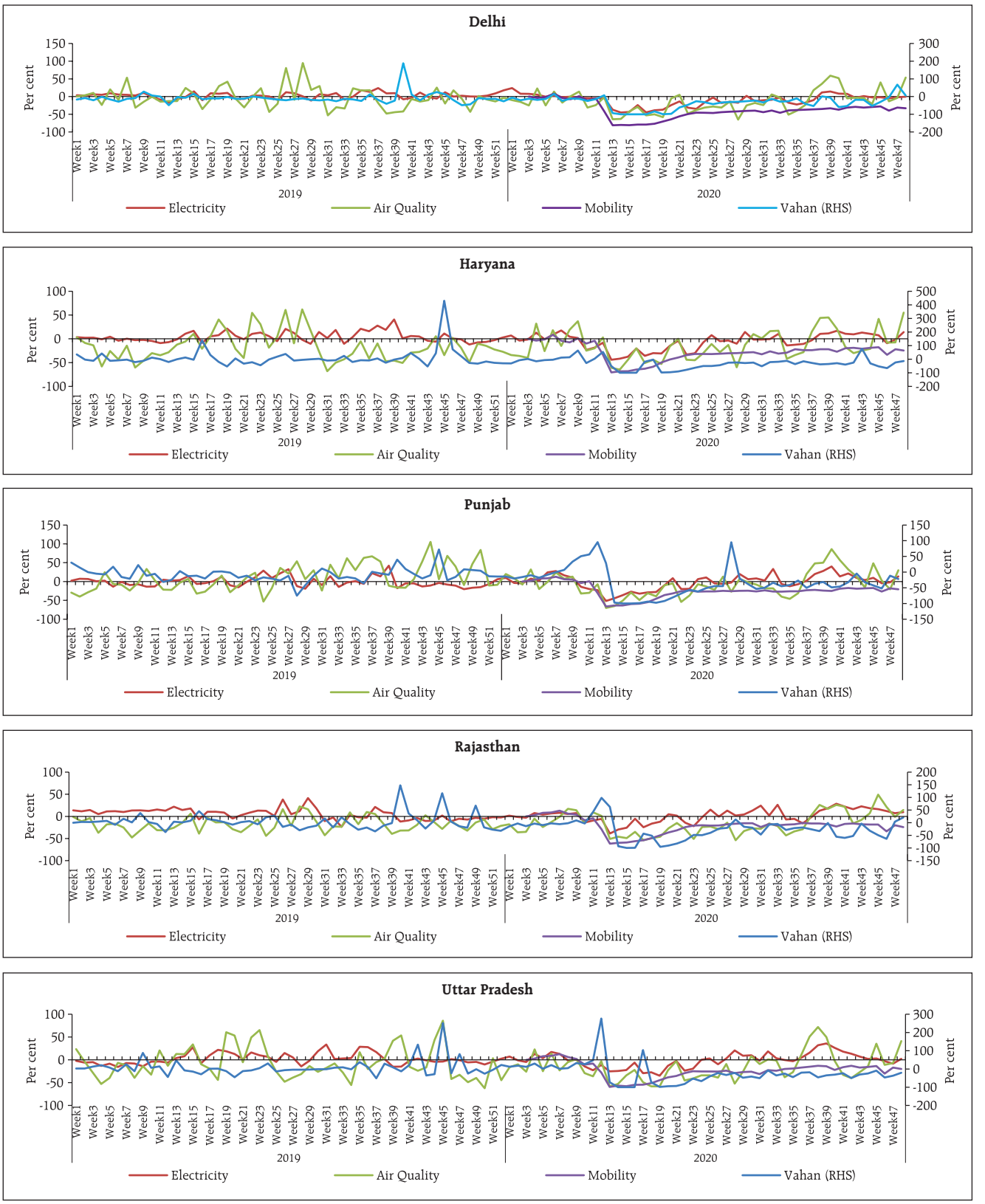
Annexure 1

Chart I.1: Northern Region data (y-o-y growth)

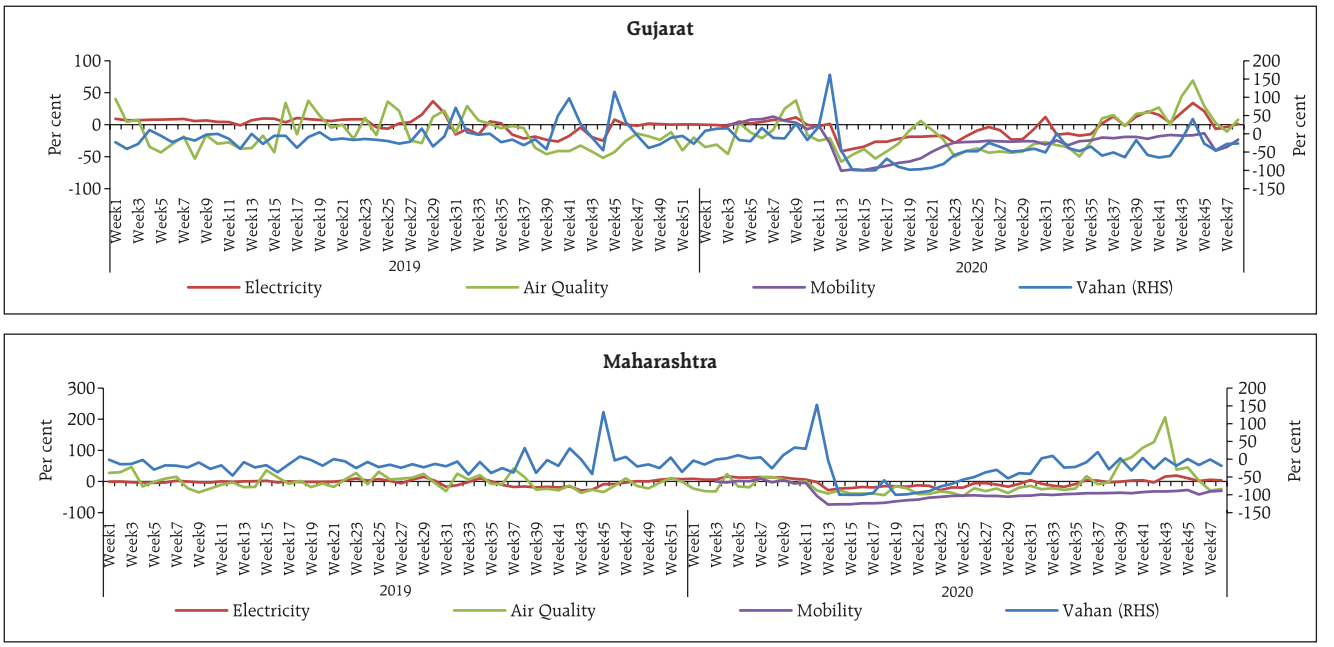


Source: Vahan Dashboard, POSOCO, CPCB, Google.

Chart I.2: Eastern Region data (y-o-y growth)

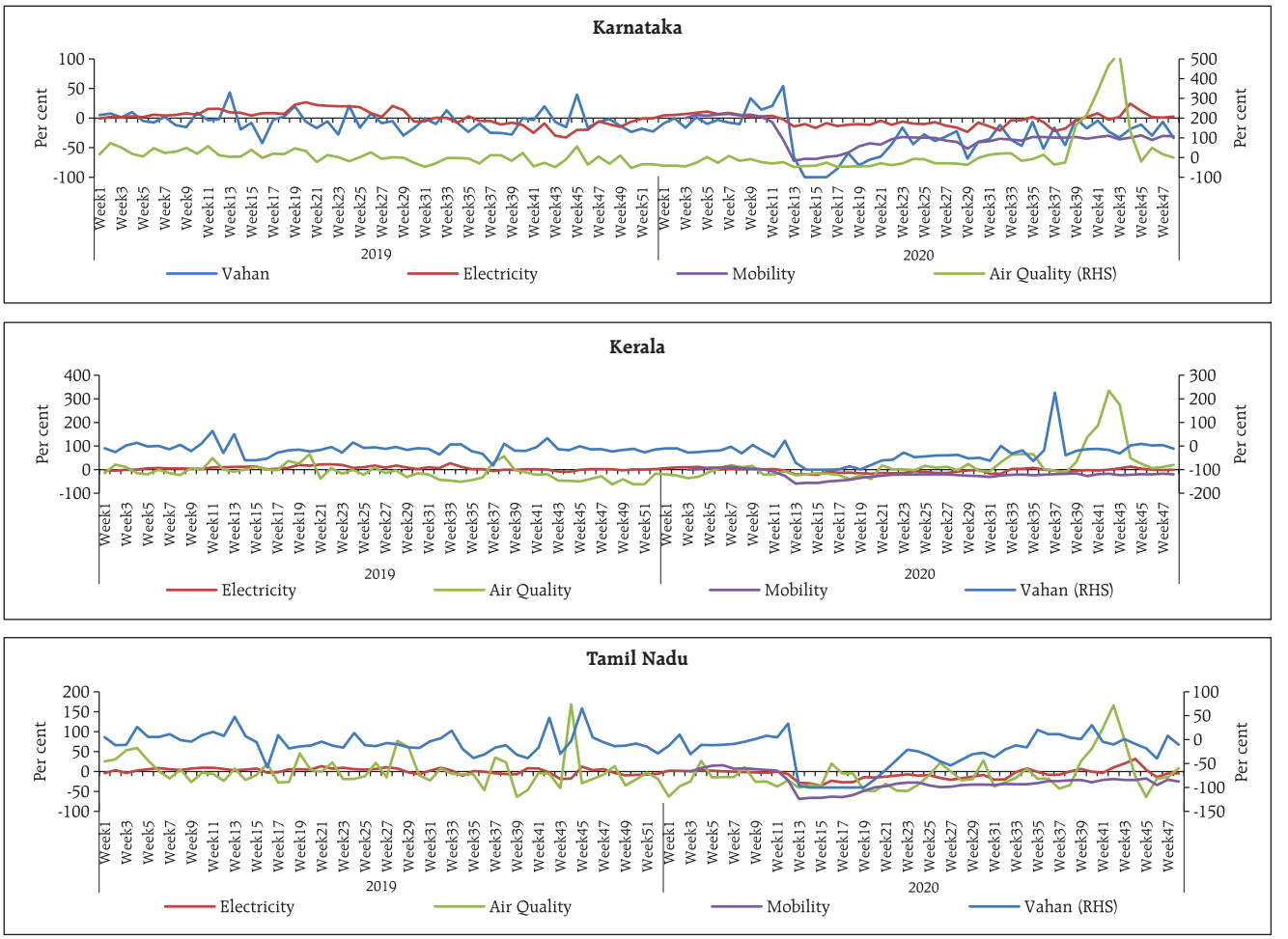
Source: Vahan Dashboard, POSOCO, CPCB, Google.

Chart I.3: Western Region data (y-o-y growth)



Source: Vahan Dashboard, POSOCO, CPCB, Google.

Chart I.4: Southern Region data (y-o-y growth)



Source: Vahan Dashboard, POSOCO, CPCB, Google.

*Government Finances 2020-21: A Half-Yearly Review**

This article, third in the series of half-yearly reviews of government finances, examines the fiscal arithmetic behind government budgets and explains the impact of contraction in economic activity and the fiscal response to COVID-19 on key fiscal parameters in the first half of 2020-21. The build-up of combined fiscal deficit in H1:2020-21 is sharper, but attributable mostly to the developments in Q1. Going forward, with the severest impact of COVID-19 on government finances already realised in Q1, there is scope for Centre and states to continue with the counter-cyclical fiscal support, which is necessary to sustain the momentum of recovery.

Introduction

The Union Budget for 2020-21, presented before the COVID-19 related lockdown, aimed at providing a counter-cyclical fiscal support to the slowing economy. This fiscal stance, however, necessitated taking recourse to the escape clause [Section 4(2)] of the Fiscal Responsibility and Budget Management (FRBM) Act allowing additional fiscal deficit of 0.5 per cent of Gross Domestic Product (GDP). As a result, the fiscal consolidation goal of achieving Gross Fiscal Deficit to Gross Domestic Product (GFD-GDP) ratio of 3.0 per cent in 2020-21 was shifted to 2022-23 (3.1 per cent). Unlike the Centre, states have largely adhered to the fiscal deficit targets in recent years, mostly achieved by cutbacks in expenditure, with associated adverse implications on growth. For all states taken together, GFD is budgeted at 2.8 per cent of GDP in 2020-21, though there is a marked difference between states that presented their budgets before the COVID-19 lockdown [2.4 per cent of their combined Gross State Domestic Product (GSDP)] and those that presented after (4.6 per cent of their combined GSDP).

The fight against COVID-19 necessitated severe restrictions on normal life and economic activity, which has had a devastating impact on government finances. Global general government fiscal deficit as a per cent of global GDP is projected to increase to 12.7 per cent in 2020 from 3.9 per cent in 2019, due to combined impact of increase in deficit balance and reduction in world output (IMF 2020a). For India, the International Monetary Fund (IMF) projects the general government fiscal deficit to increase from 8.2 per cent of GDP to 13.1 per cent of GDP. The debilitating effects of the contraction in economic activity on government finances could be evident from the asymmetric responses of revenues and expenditure, with revenue flows linked to the economic cycle while expenditure is largely sticky. Counter-cyclical stimulus in the form of higher expenditure and lower taxes can further amplify the size of the fiscal deficit beyond the endogenous impact of economic cycle. High-frequency data on government finances for India show that while revenues have collapsed with the contraction in GDP, government expenditure has been held up on the back of stimulus adjusted for efforts at deferment / curtailment of non-essential expenditure, leading to widening of the fiscal deficit and resultant unprecedented levels of government borrowing.

This article, the third in the series of half-yearly reviews of government finances, examines some of the key fiscal challenges in an unprecedented year, informs on the fiscal response to COVID-19 and the resultant impact on key fiscal parameters. First, it attempts to quantify the impact of the stimulus package on growth and its various components for the current and next fiscal year. Second, the likely general government fiscal balance for 2020-21 has been projected keeping in view the outcomes so far.

* This article is prepared by Rahul Agarwal, Ipsita Padhi, Sudhanshu Goyal, Samir Ranjan Behera and Sangita Misra in the Fiscal Division of Department of Economic and Policy Research (DEPR), Reserve Bank of India. The team is thankful to Dr. Deba Prasad Rath for his valuable guidance. The views expressed are those of the authors and do not necessarily reflect the views of the Reserve Bank of India.

The article is structured as follows. Section II analyses the receipts and expenditure outcomes for the Centre and all states taken together at quarterly frequency for the first half of 2020-21. Section III deals with the outcomes in terms of key deficit indicators and their financing. Market borrowings by the Centre and state governments are covered in Section IV. Section V presents estimates on General Government finances for Q1 and Q2:2020-21 along with projections for the second half of 2020-21. Section VI concludes and sets out the near-term fiscal outlook.

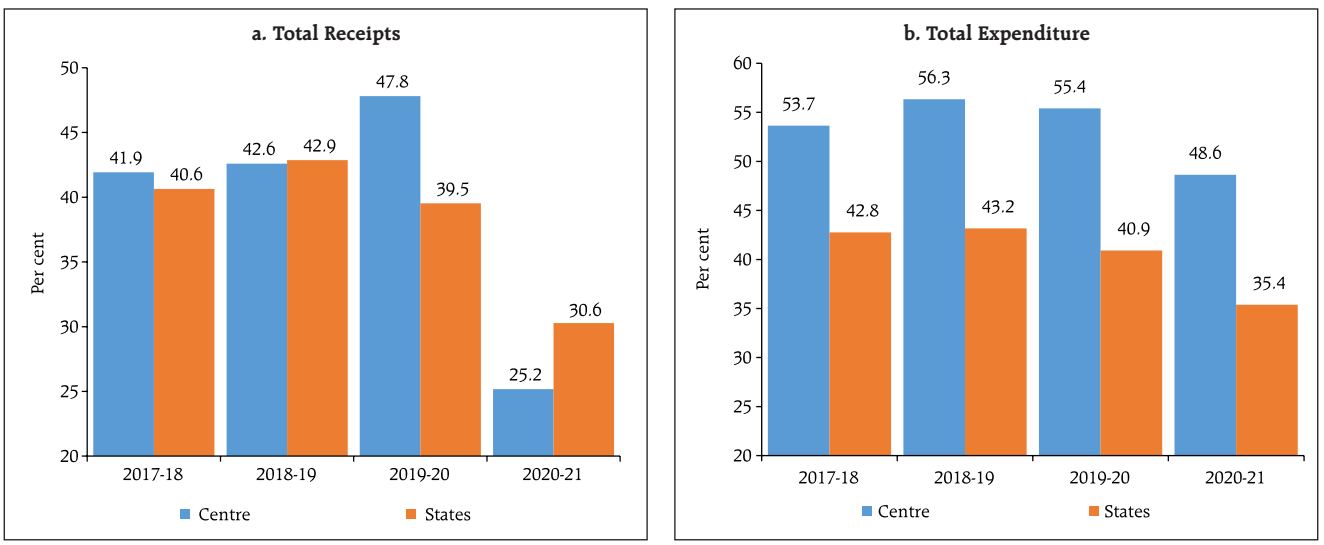
II. Quarterly Outcomes: Q1 and Q2 of 2020-21

Over 40 per cent of the total receipts of Central government is generally collected in the first half of the financial year, while around 55 per cent of total expenditure is incurred during the same period. Marking a departure from this pattern, only 25.2 per cent of the budgeted total receipts could be garnered during H1:2020-21, while spending in H1 was correspondingly constrained to less than half of the budgeted expenditure for the year. In H1:2020-21, states[1] could collect only 30.6 per cent of their budgeted receipts and their expenditure was also lower *vis-à-vis* the usual pattern of 40 per cent each of the annual receipts and expenditure in H1 (Chart 1).

a. Receipts

Revenue receipts of Central government were severely affected on account of the pandemic-induced lockdown in Q1:2020-21, registering a contraction of 47.3 per cent during the period. With the gradual resumption in economic activity since June 2020, revenue receipts recovered, but partially, and recorded a lower contraction of 24.6 per cent in Q2:2020-21. Non-debt capital receipts also registered negative growth during the period as disinvestments have largely not fructified with only a little over ₹6,000 crore being raised through offer for sale (OFS) and initial public offering (IPO) (Chart 2).

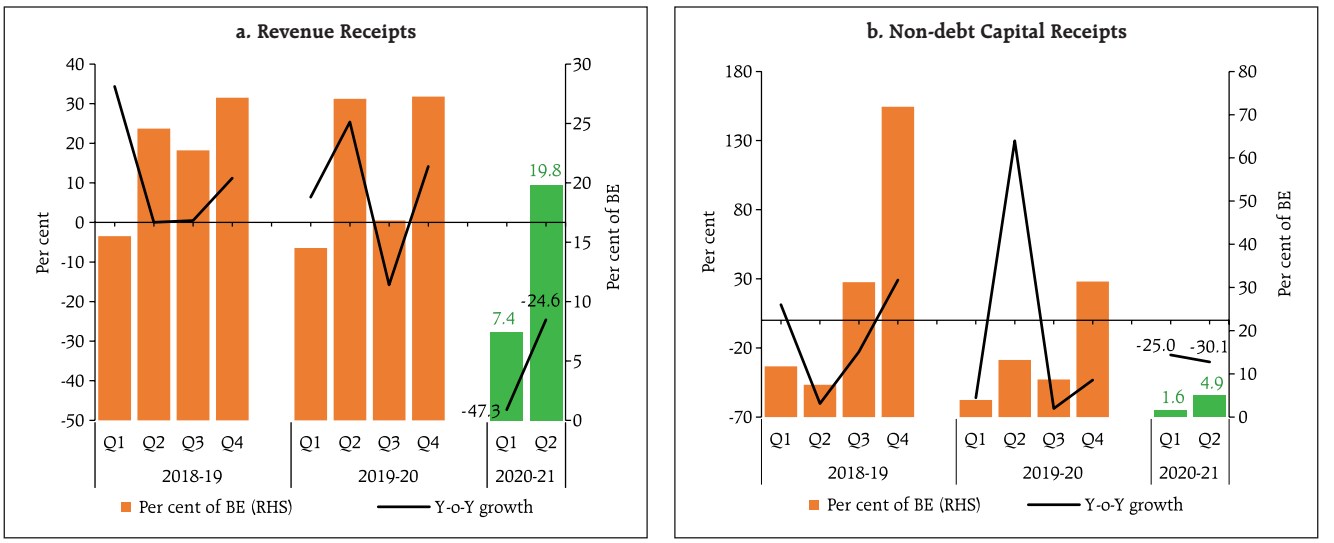
Chart 1: Total Receipts and Expenditure for H1: 2020-21



Sources: Controller General of Accounts (CGA); and Comptroller and Auditor General (CAG).

[1] Based on aggregate data for 21 states for which complete historical and updated data up to Q2:2020-21 are available.

Chart 2: Centre's Receipts for Q1 and Q2: 2020-21

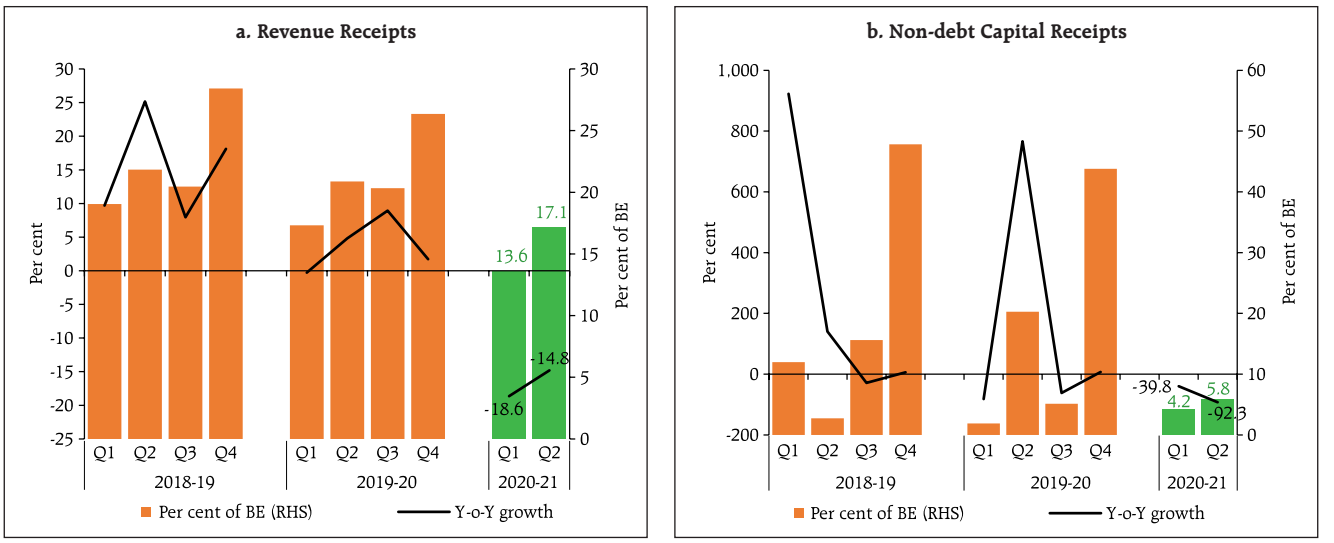


Source: CGA.

States also witnessed a broadly similar pattern, with their revenue receipts registering a negative year-on-year (y-o-y) growth of 18.6 per cent in Q1: 2020-21, *albeit* with a moderation in contraction in Q2. Non-debt capital receipts for states, which exhibit considerable volatility, also recorded a contraction in Q1 and Q2:2020-21, resulting in lower non-debt capital receipts (as per cent of BE) in H1: 2020-21 than the average of preceding two years (Chart 3).

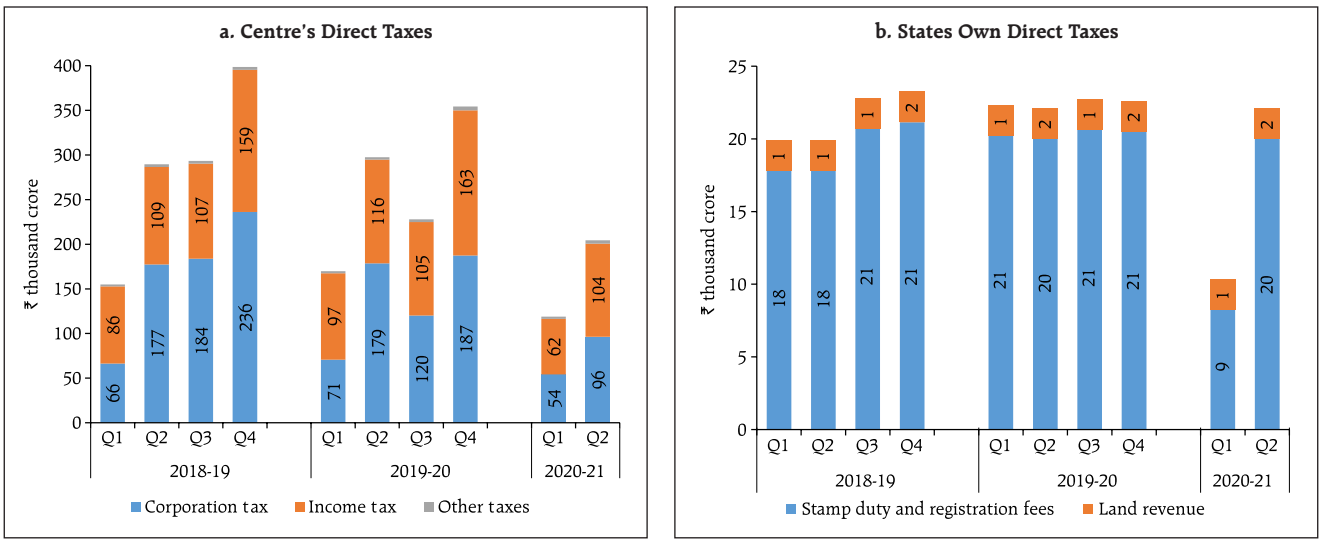
Centre's direct tax collections, both income tax and corporation tax, recorded large declines during H1:2020-21, partly on account of the cyclical contraction in economic activity and partly because of the discretionary policy actions of the government relating to various relaxations for filing tax returns.

Chart 3: States' Receipts for Q1 and Q2: 2020-21



Source: CGA.

Chart 4: Direct Taxes during Q1 and Q2:2020-21



Sources: CGA; and CAG.

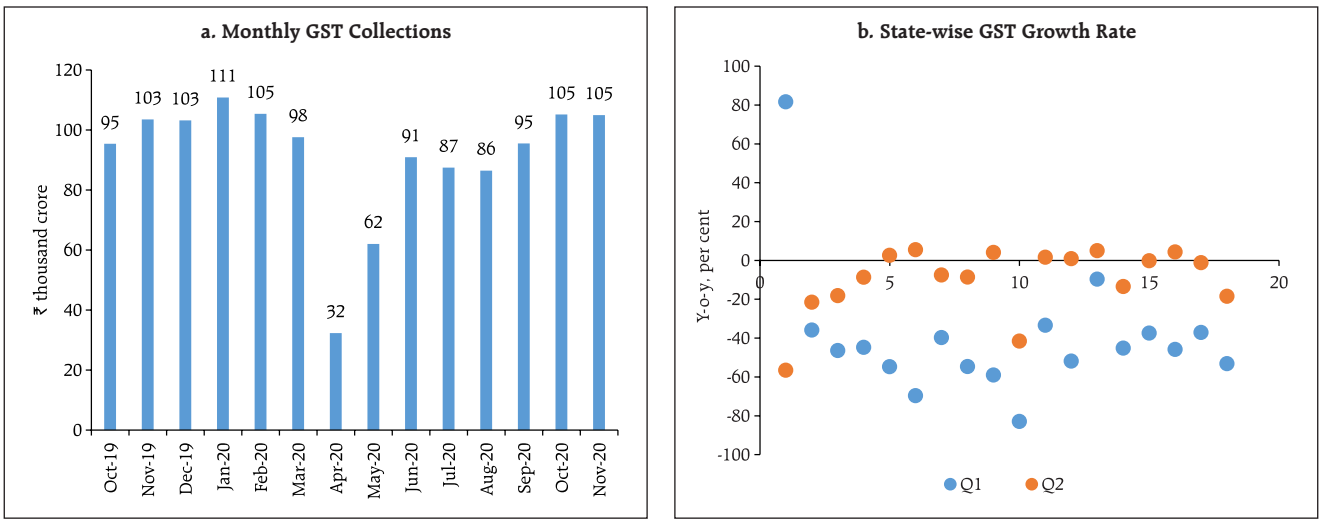
Both of these are likely to have provided counter-cyclical support to growth[2], even as they have had an adverse effect on Central government finances. For states, stamp duties which account for more than 85 per cent of own direct tax revenues, witnessed a sharp fall of 57.2 per cent in Q1:2020-21 on y-o-y basis due to contraction in construction activity. With the gradual reopening of the economy, stamp duty collections recovered sharply in Q2:2020-21, registering only a marginal y-o-y contraction of less than 1 per cent (Chart 4).

Centre's indirect tax collections also registered a contraction during the period, *albeit*, of a lesser magnitude compared to direct taxes, on the back of buoyant Goods and Service Tax (GST) revenues post re-opening of economic activities and supported by growth in union excise duty collections. GST collections (both Centre and states) took a severe hit in Q1:2020-21 on account of the lockdown but recovered quickly during June-November 2020 as consumption spending revived, backed by pent-up demand and festive spending. GST compensation cess collections during H1:2020-21 at 31.6 per cent of BE have, however, been inadequate to meet the requirement of GST compensation to states. Accordingly, the Central government has operationalised a Special Window, under which the Government of India (GoI) will borrow an estimated shortfall in GST cess collections of ₹1.1 lakh crore (assuming all states join) in appropriate tranches, which will be passed on to the states as a back-to-back loan in lieu of the GST compensation cess release (Chart 5). As of now, all states and all 3 union territories with Legislative Assembly, have decided in favour of this option. The GoI has already borrowed an amount of ₹36,000 crore on behalf of the states and passed it on to the states and union territories that chose this option (as on December 9, 2020).

In order to garner some additional revenues during these unprecedented times, the Centre increased the special additional excise duty and Road Infrastructure Cess on petrol and diesel twice during March-May 2020, as a result of which union excise duty collections grew by 34.2 per cent in H1:2020-21. 22 states/UTs have also hiked their duties on petrol

[2] With direct tax elasticities being greater than 1 (closer to 2) during normal times and likely to accentuate during unprecedented recessions like this for various reasons (IMF 2020b; Misra and Trivedi, 2016); decline in taxes could be disproportionately higher than the decline in income, boosting disposable income *albeit* actual impact on growth will depend on size of tax multiplier and other supply side constraints.

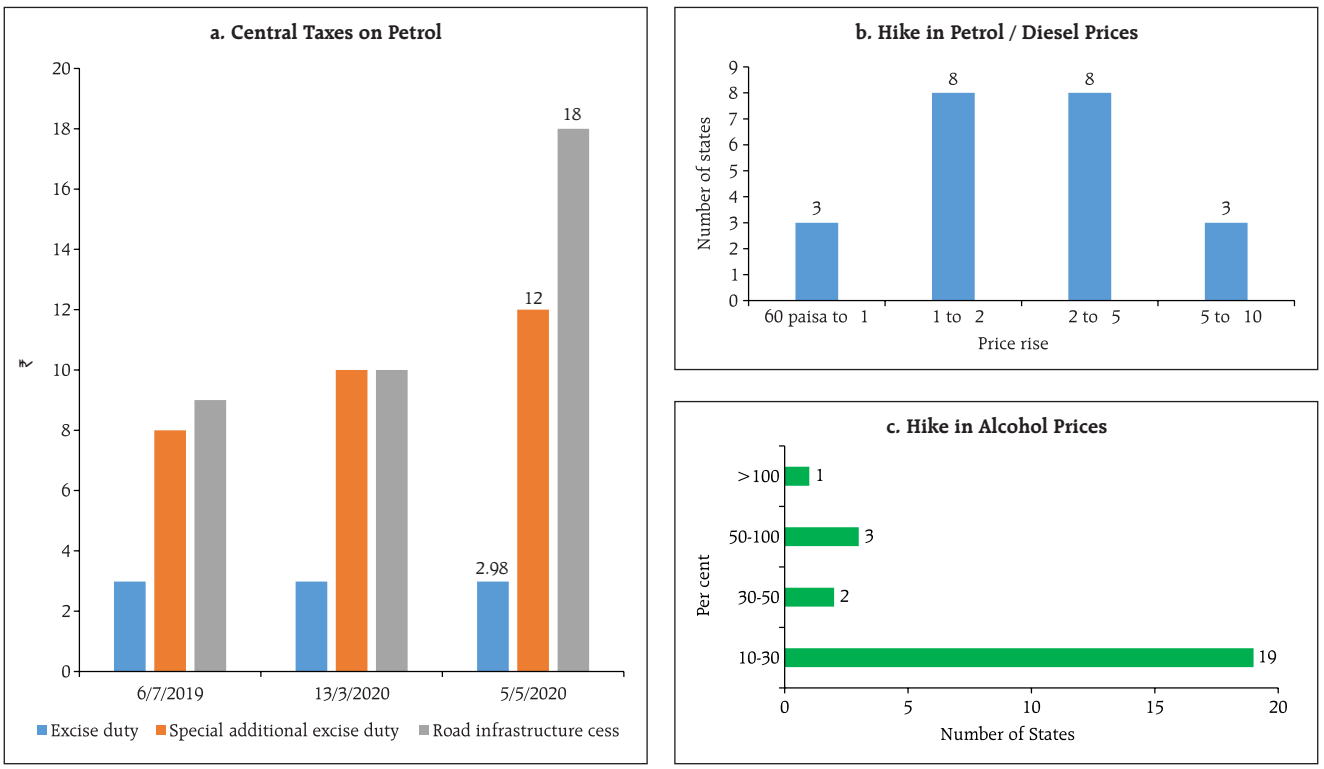
Chart 5: GST Performance



Note: Data for state-wise GST pertains to states reporting the data.
Sources: PIB; and e-STATES Database.

and diesel, mostly in the range of ₹1 to 5 while 25 states/UTs have hiked duty on alcohol, mostly in the range of 10-30 per cent, on an average basis. Although duty hikes during recessions can be considered as pro-cyclical, the price inelastic nature of these goods may have made it a useful tool for revenue augmentation even though consumption may have fallen initially during the lock down period (Chart 6).

Chart 6: Increase in Excise Duty

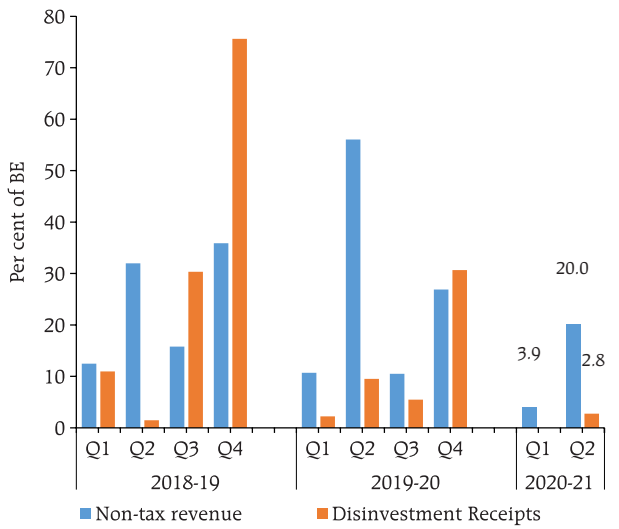


Sources: e-STATES Database; CBIC and state governments.

Apart from taxation, the Centre also relies significantly on non-tax sources for its revenue, which registered a steep decline during H1:2020-21, primarily on account of shortfall in revenue budgeted from spectrum sales. With regard to non-debt capital receipts, the realisation of government's budgeted disinvestment target of ₹2.1 lakh crore for 2020-21 has been thrown off-track by the crisis even though stock markets are currently witnessing buoyancy. Although the government has recently taken some steps to facilitate the disinvestment process, including an agreement with the World Bank to provide advisory services for asset monetisation, these are unlikely to bear results before the next fiscal year (Chart 7).

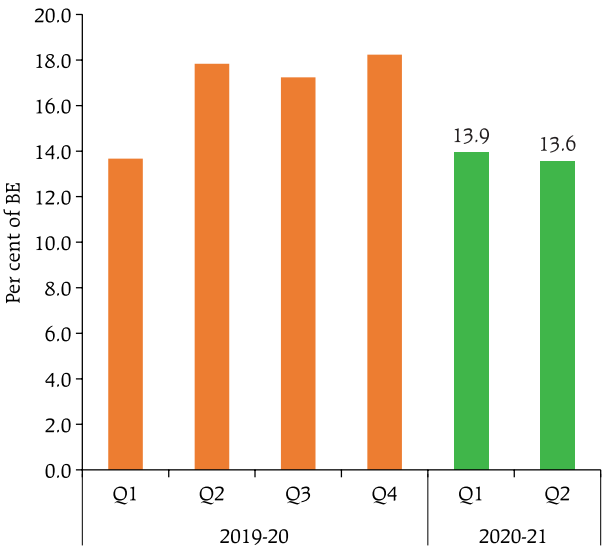
While central tax transfers to states did not see any material fall in Q1 – with transfers being done mostly based on budget estimates, the decline was prominent in Q2: 2020-21 (Chart 8), probably reflecting the shortfall in Centre's direct tax collections during Q1, which forms a part of the divisible pool[3] (it gets reflected in states' receipts with at least about a quarter lag).

Chart 7: Non-Tax Revenue and Disinvestment Receipts of Central Government



Source: CGA.

Chart 8: Central Tax Transfers to States



Sources: CAG; and Budget documents of State Governments.

b. Expenditure

Central government undertook several expenditure measures in the aftermath of the COVID-19 crisis, initially to provide socio-economic assistance to the poor and vulnerable sections through targeted cash transfers, distribution of free foodgrains, medical insurance to health workers, *etc.* and subsequently, more comprehensive measures under the various tranches of *Aatma Nirbhar Bharat* package to stimulate economic recovery. The size and composition of the stimulus coupled with its calibrated shift in focus from consumption to liquidity to investment suggest that it is growth giving, more *via* investment revival channel, with a large part of the impact expected to accrue in the second half of the year (Box I). While some of these measures led to an additional expenditure over and above the budgeted amount, others pertaining to front-loading of expenditure and liquidity measures did not carry any additional fiscal burden.

A part of the additional expenditure requirement has been met by re-allocation of funds from other heads of expenditure. The government also undertook expenditure rationalisation measures during Q1-Q3:2020-21 to target spending in priority areas

[3] The divisible pool is that portion of gross tax revenue which is distributed between the Centre and the States. It consists of all taxes, except surcharges and cess levied for specific purpose, net of collection charges.

Box I: Impact of Fiscal Stimulus on Growth

In response to the pandemic induced unprecedented shock, governments across the globe have provided massive economic stimulus. In India, the government has taken a calibrated approach towards providing fiscal stimulus that included social assistance to the poor in the initial stage which was broadened with a comprehensive package (*Aatma Nirbhar Bharat)* to provide support to the various sectors of the economy (Table I.1 and Appendix Table 7). An attempt has been made to estimate the impact of fiscal stimulus measures on growth based on the size and composition of the above-the-line expenditure measures and the corresponding multiplier size. Towards this end, a one-to-one mapping of each of the stimulus measures as provided under the Pradhan Mantri Garib Kalyan Yojana (PMGKY) and *Aatma Nirbhar* 1.0, 2.0 and 3.0 is undertaken with the corresponding demand-side components of GDP – Government Final Consumption Expenditure (GFCE), Private Final Consumption Expenditure (PFCE) and Gross Fixed Capital Formation (GFCF). These were then interacted with the respective fiscal multipliers to obtain the impact on growth as the type of expenditure generally determines the impact of any fiscal stimulus on economic growth.

Fiscal multiplier, defined as a ratio of a change in output to an exogenous change in a fiscal variable (*viz.*, government expenditure/taxation or both), measures the immediate impact of discretionary fiscal policy on output. Multipliers being unobservable, they are gauged by estimated parameters, even while there is significant uncertainty about the correct size of fiscal multipliers. Empirical estimates suggest that fiscal multipliers vary over time depending on the state of the business cycle and monetary policy stance among others (IMF, 2020a).

Table I.1: Summary of Stimulus Measures Announced (till November 30, 2020)

Sl. No.	Item	₹ Crore
1.	Pradhan Mantri Garib Kalyan Package (PMGKP) +	1,92,800
2.	Atmanirbhar Bharat Abhiyaan 1.0	11,02,650
3.	PMGKP Anna Yojana – extended till November	82,911
4.	Atmanirbhar Bharat Abhiyaan 2.0	73,000
5.	Atmanirbhar Bharat Abhiyaan 3.0	2,65,080
6.	RBI measures announced till October 31, 2020	12,71,200
Total		**29,87,641**

Source: Press Information Bureau (PIB) India.

In the Indian context, it is important to note that revenue expenditure multipliers for the government are less than unity. When revenue expenditure is increased by one rupee, while GFCE increases by one rupee, capital expenditure often contracts offsetting some of the desired increase in the output and eventually increasing output only by 45 paise in period t and about 10 *paise* in period t+1. In contrast, the capital expenditure multiplier is well above unity for the central and state governments - for the central government, it is 2.45 in period t and 3.14 in period t+1, while for state governments it is close to 2 (RBI, 2019). This indicates that an increase in capital expenditure by the central and state governments by one rupee each crowds in private investment, induces a more than proportionate increase in investment in the economy with benefits accruing over a few years[4]. Using these multipliers and based on the fiscal stimulus measures announced so far, it is estimated that government expenditure will add 159 bps and 158 bps to growth in 2020-21 and 2021-22, respectively. Here again, the impact of government stimulus measures is likely to pan out in H2 of the current financial year, operating mainly through the investment revival channel (Chart I.1).

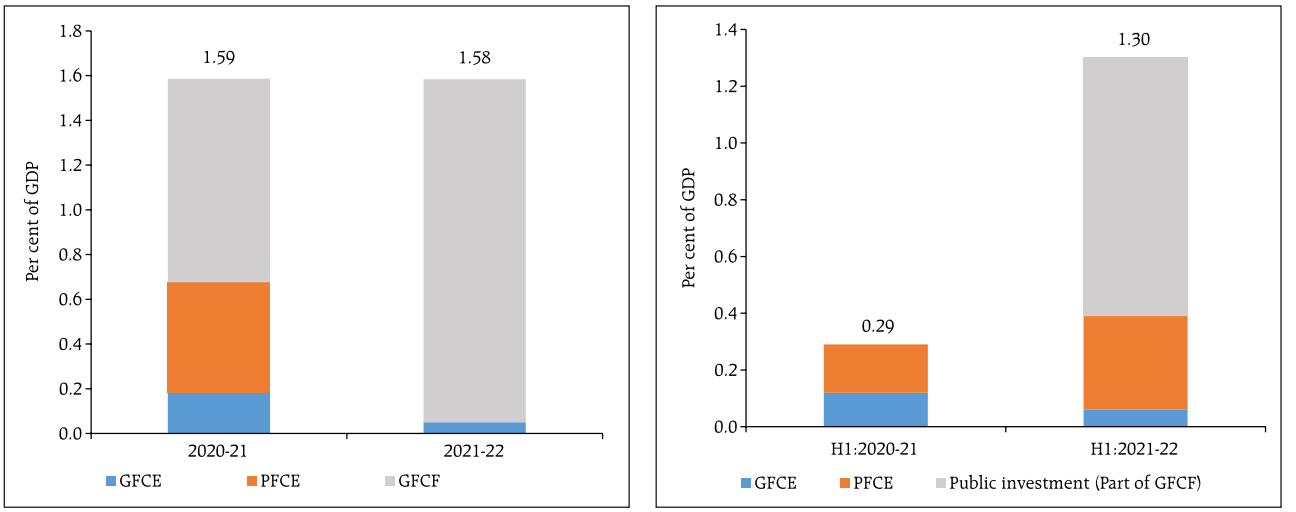
Empirical estimates suggest that public investment can have a powerful impact on GDP growth and employment during periods of high uncertainty (Rachel and Summers, 2019; Eggertsson *et al.*, 2019), which is a prominent feature of the current crisis. In India also, it is investment growth which has played a bigger role than consumption during the revival phase in 2000s, particularly during mid-2001 to 2003 and again in the immediate post-Global Financial Crisis (GFC) period (Chart II.2a). Towards this end, the government focus on investment revival is a timely step, although the share of general government investment (including PSEs) on total GFCF has been about 24 per cent (Chart II.2b).

There are a few uncertainties, both on the upside as well as downside, associated with these estimated impacts of the stimulus on growth. First, given that the multipliers used have been computed for normal times, the actual impact could be different in the current pandemic

(Contd...)

[4] GFCE includes all revenue expenditure of central government except transfer payments (*i.e.* subsidies) like Direct Benefit Transfer (DBT) for women/ senior citizens and food subsidy, which are included under PFCE.

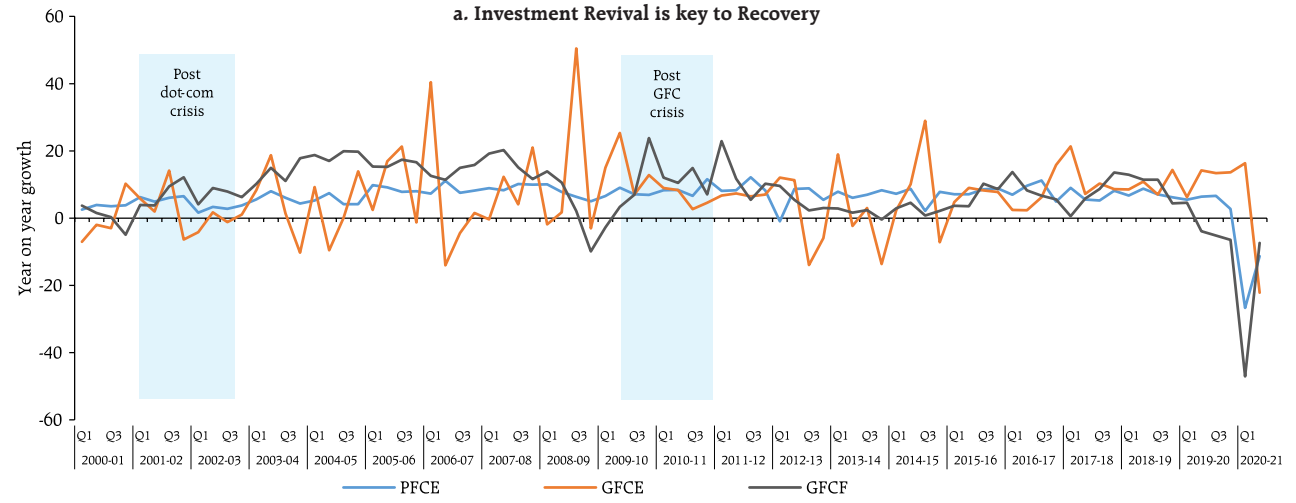
Chart I.1: Impact of Stimulus on GDP



Source: RBI staff estimates.

situation. While the economic downturn and the highly accommodative monetary policy stance as being witnessed now suggest that the multipliers could be relatively high, supply constraints related to the pandemic may have contributed in the opposite direction (IMF, 2020a)[5]. Second, the liquidity support given by the Centre backed by guarantees, which are essentially below-the-line measures providing supply-side support, will also

Chart II.2: Investment Behaviour and Share



Notes: 1. Growth rates are computed for 2000-01 to 2005-06 based on 1999-00 base GDP series; for 2006-07 to 2011-12 based on 2004-05 base GDP series and for 2012-13 onwards based on 2011-12 base GDP series.
Sources: National Statistical Office (NSO) and RBI staff estimates.

b. General Government (including PSEs) Capex

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 E
Share in Total GFCF	20.5	22.1	23.0	25.7	24.3	23.4	23.7	23.5
Growth Rate (In per cent)	2.1	9.2	6.9	19.0	2.9	3.1	11.2	-3.7

E: estimated.

(Contd...)

[5] Underestimation of fiscal multipliers during the global financial crisis appears to have contributed significantly to growth forecast errors (Blanchard and Leigh, 2013).

provide a positive push in addition to the demand-side measures, particularly for some of the badly hit sectors like Micro, Small and Medium Enterprises (MSMEs). Third, there is also a view point that the likely push to private consumption *via* subsidies and direct benefit transfers may be offset by the higher indirect taxes levied, though the actual impact will depend on the differential marginal propensity to consume. Fourth, any likely capex cut by states, as witnessed during the previous episodes, may also dampen some of the expansionary impact of the stimulus.

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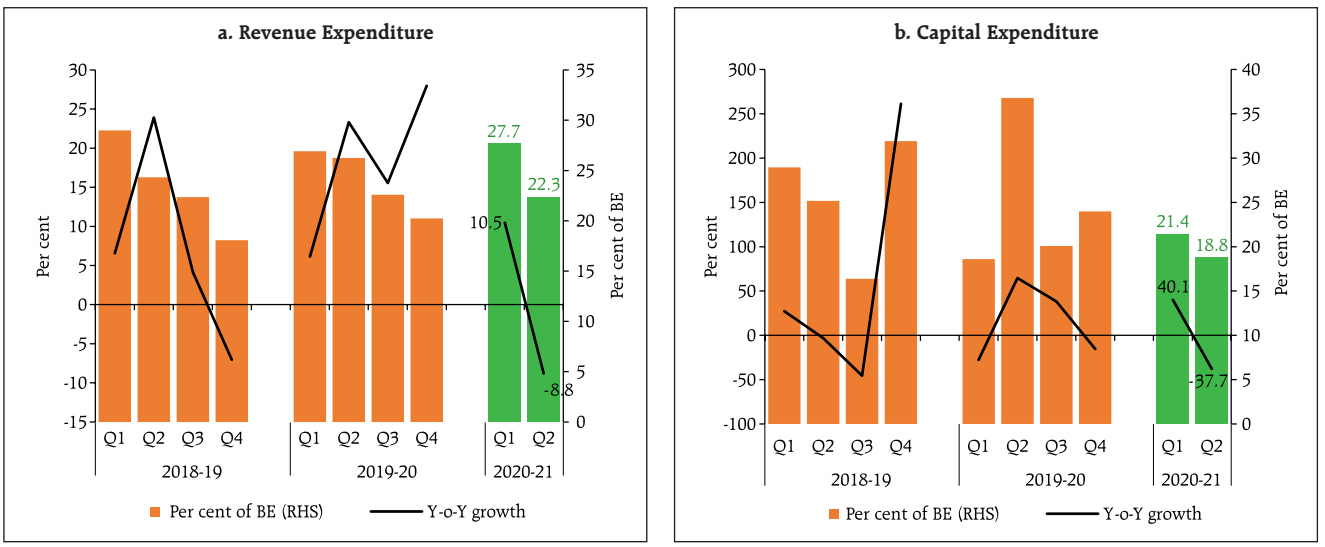
Eggertsson, G. B., N. R. Mehrotra, and J. A. Robbins. 2019. "A Model of Secular Stagnation: Theory and Quantitative Evaluation." American Economic Journal: Macroeconomics 11 (1): 1–48

IMF Fiscal Monitor. 2020a, International Monetary Fund, October.

Rachel, L., and L. H. Summers. 2019. "On Falling Neutral Real Rates, Fiscal Policy, and the Risk of Secular Stagnation." Brookings Papers on Economic Activity (Spring): 1–76.

over avoidable outgoes (these expenditure curbs on various Central ministries and departments have now been relaxed)[6]. As a result, total expenditure remained contained at 48.6 per cent of BE during H1:2020-21, as against 53.4 per cent during the same period of last year, despite pandemic related expansionary measures. In absolute terms, revenue spending during H1:2020-21 was almost at last year's levels, recording a modest growth of 1.0 per cent over the previous year, despite collapse in receipts, with Q1 registering a sharp pick up reflecting pandemic related revenue expenditure thrust coupled with its front-loading and Q2 witnessing a sharp fall. Capital expenditure, on the other hand, contracted by 11.6 per cent during H1:2020-21, deterrents being lockdown in Q1 and monsoon in Q2 (Chart 9).

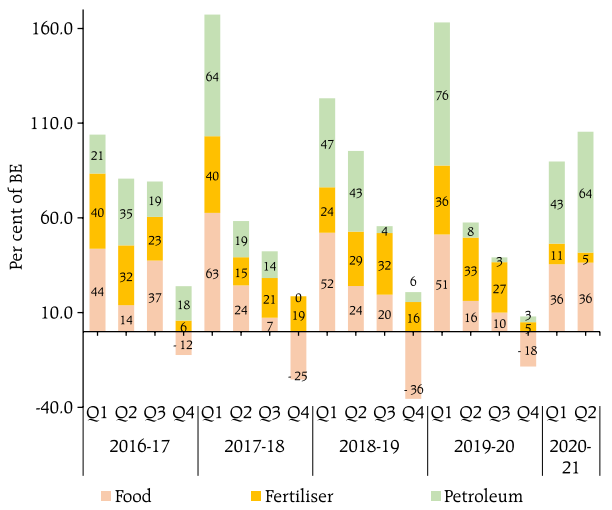
Chart 9: Centre's Expenditure for Q1 and Q2: 2020-21



Sources: CGA; and Union Budget Documents.

[6] Office Memorandum: Cash Management Guidelines for the remaining period of the FY 2020-21, October 29, 2020.

Chart 10: Expenditure on Major Subsidies for Q1 and Q2: 2020-21



Source: CGA and Union Budget Documents.

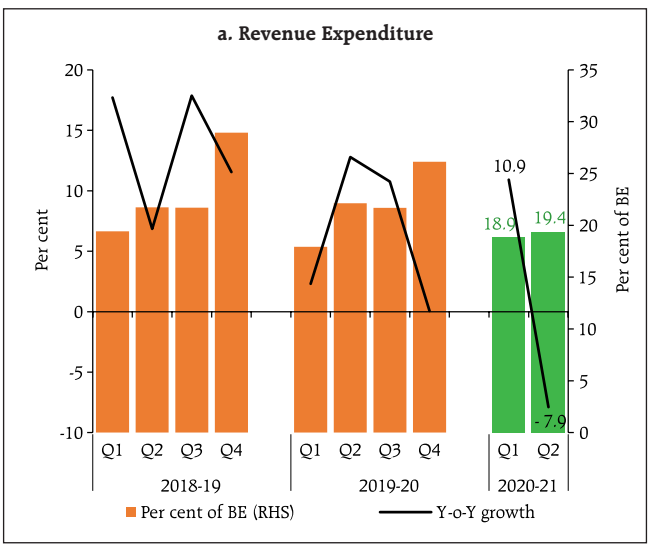
The subsidy pay-out for the Central government was lower in Q1:2020-21 compared to the corresponding period of last year but has been higher in Q2:2020-21 on account of higher food and petroleum subsidy (as per cent of BE) relative to Q2:2019-20 (Chart 10).

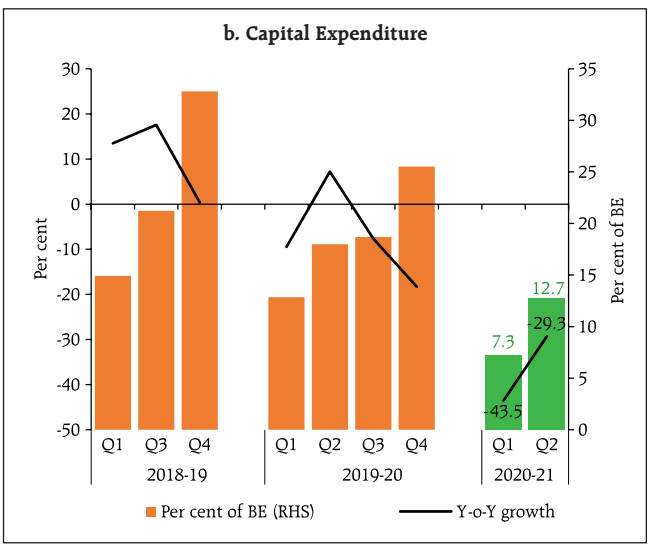
Revenue expenditure of states has also not witnessed any sharp upturn in H1:2020-21 compared with previous years despite the fact that states have been at the forefront in the fight against the pandemic, primarily attributed to re-prioritisation of expenditure through ways like Dearness Allowance (DA) freeze, deferment of part or full salary, rationalisation of travel and vehicle expenses (RBI, 2020). Across quarters though, there has been a switch in revenue spending from Q2 to Q1. As regards capital expenditure, it registered a sharp fall in Q1:2020-21, which moderated slightly in Q2:2020-21 on Y-o-Y basis. Capital expenditure of state governments in H1: 2020-21 is a significantly lower proportion of the budget estimates than the previous two years (Chart 11).

Looking at capital expenditure from a long-term perspective shows that both union and states have resorted to capex cuts in 17 and 16 years, respectively, over the last two decades. However, in the last few years, while the centre has broadly maintained its capex *vis-à-vis* BE, cuts have been particularly pronounced for states (Chart 12 a).

Along with the increased capex announced by the union government for several ministries for 2020-21 under the *Aatma Nirbhar Bharat 2.0 and 3.0,*

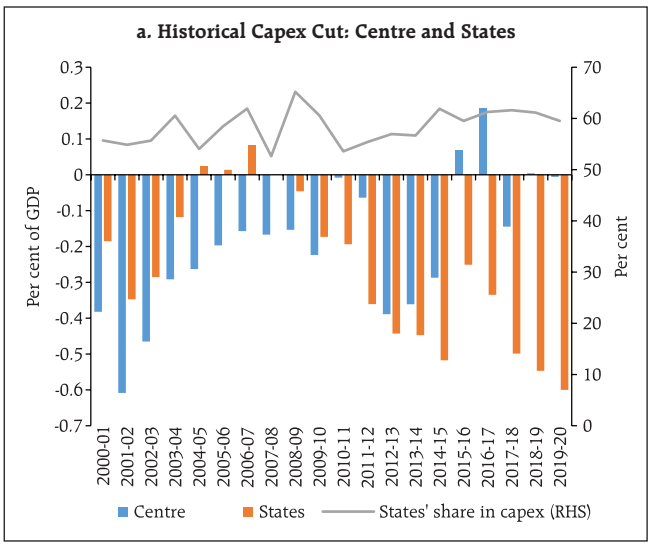
Chart 11: State's Expenditure for Q1 and Q2: 2020-21

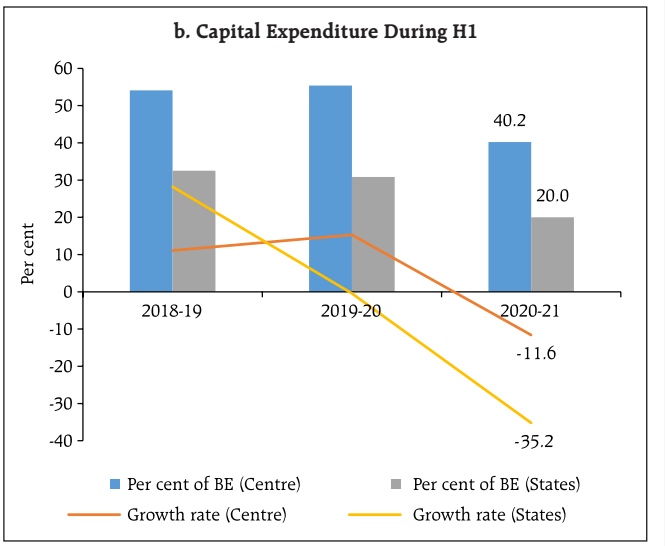




Sources: CAG; and Budget Documents of State Governments.

Chart 12: Capital Expenditure Patterns of Central and State Governments





Sources: CGA; CAG; and Budget Documents of Centre and State Governments.

it is also reviewing the capital expenditure of Central Public Sector Enterprises (CPSEs) and has urged them to meet 75 per cent of their capital expenditure target by the third quarter of this fiscal. There are, however, strong indications that states, which constitute around 60 per cent of the general government capex with a fiscal multiplier above 2, may resort to a cut in capex in 2020-21, which may act as a drag on revival of investment and overall growth (Chart 12 b).

A comparison of general government capital expenditure as a proportion to its fiscal balance, a broad indicator of extent of borrowing going towards financing capex, across emerging market economies shows that this proportion in India is lower than many of its peers (Chart 13).

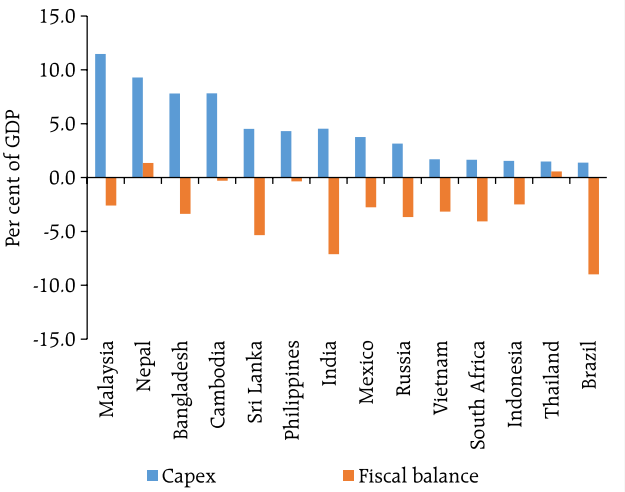
III. Fiscal Deficit and its Financing

a. Fiscal Deficit

Central Government

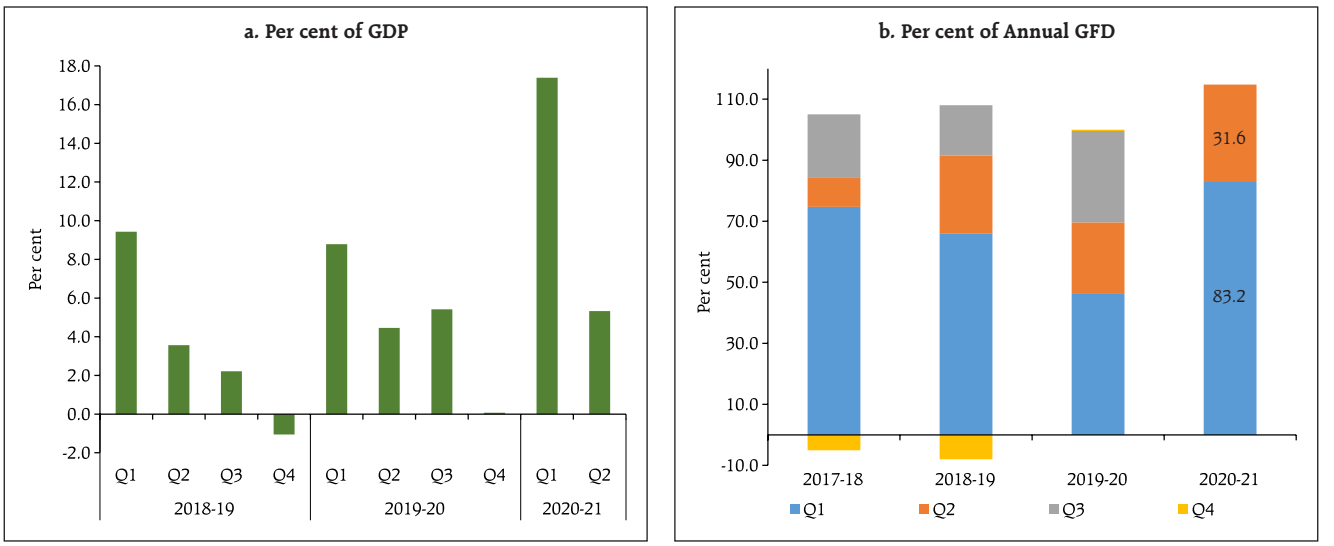
With the Central government overshooting the GFD-GDP target of 3.3 per cent in 2019-20, government had budgeted a slightly higher fiscal deficit ratio of 3.5 per cent for 2020-21, with the aim of providing counter-cyclical support to growth while adhering to the FRBM Act prescribed targets. This fiscal arithmetic has, however, been altered by the steep erosion in revenues on the back of sharp contraction in economic activity. In Q1 and Q2 of 2020-21, the fiscal deficits at 17.4 per cent and 5.3 per cent of quarterly GDP

Chart 13: General Government Capex *vis-a-vis* Fiscal Balance



Notes: 1. Negative fiscal balance indicates fiscal deficit.
2. Data pertains to 2016.
Sources: OECD; and IMF.

Chart 14: Centre's Gross Fiscal Deficit



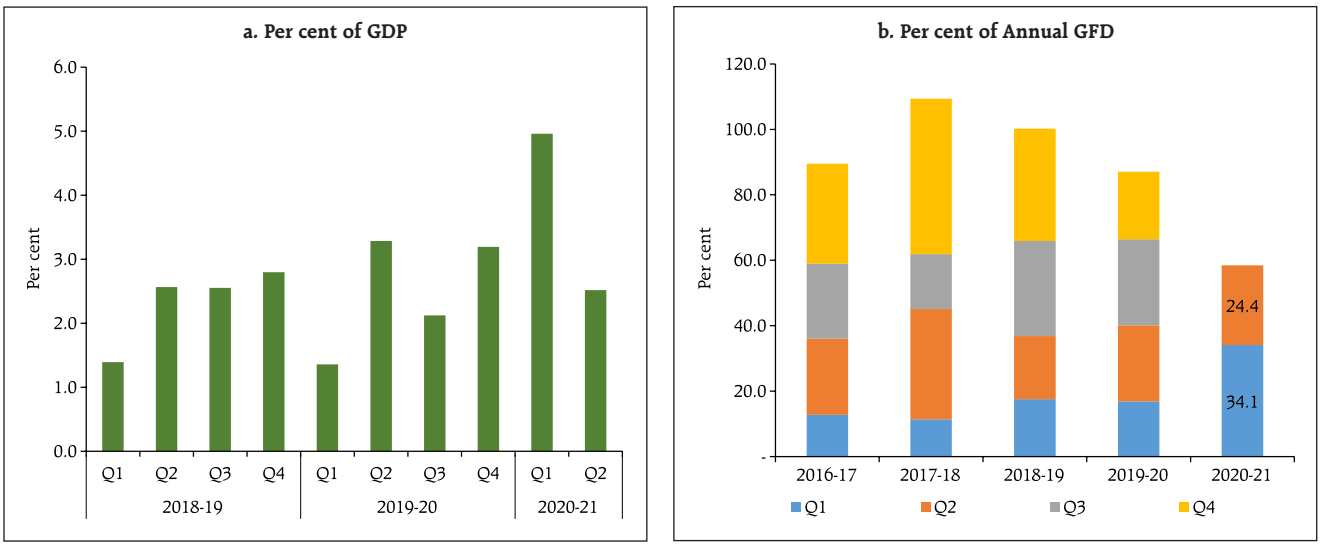
Sources: CGA; and Union Budget Documents.

respectively, were much higher compared to previous years (Chart 14).

State Governments

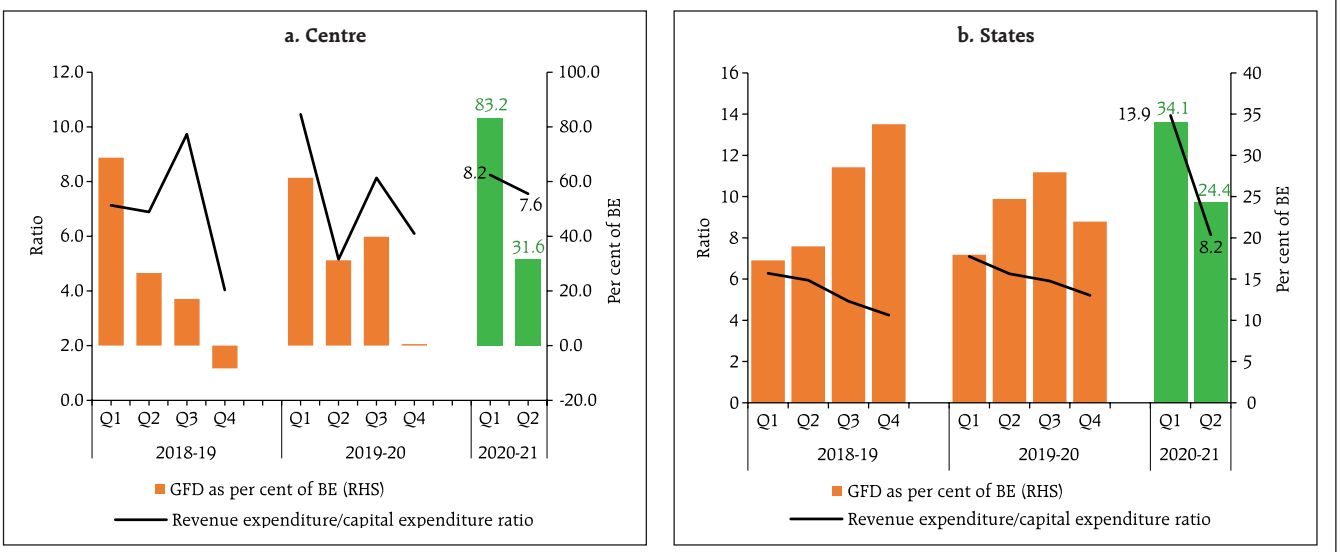
While states have budgeted a GFD-GDP ratio of 2.8 per cent for 2020-21, this number is poised for substantial upward revision as most of the states presented their budgets before the onset of COVID-19 pandemic. This is evident from the fact that average GFD for the states that made post-outbreak budget presentation is 4.6 per cent of GSDP *vis-a-vis* 2.4 per cent for states presenting their budget before the outbreak of the pandemic (RBI, 2020). In Q1 and Q2 of 2020-21, the fiscal deficit for states was at 5.0 per cent and 2.5 per cent of quarterly GDP, respectively, much higher compared to previous years (Chart 15).

Chart 15: States' Gross Fiscal Deficit



Sources: CAG; and Budget documents of State Governments.

Chart 16: Gross Fiscal Deficit and Quality of Expenditure for Centre and States



Sources: CGA; CAG; and Union Budget Documents.

The fiscal slippage has been accompanied by a deterioration in the quality of expenditure, with the revenue expenditure to capital expenditure ratio rising for Centre and states in H1:2020-21, relative to the corresponding period of the previous year (Chart 16). More than a third of the total revenue expenditure during H1:2020-21 by Centre was incurred by the Ministries of Agriculture, Rural Development, Defence, and Consumer Affairs, Food and Public Distribution (Table 1).

Ministry-wise, the Ministries of Defence, Railways, and Road Transport accounted for more than 75 per cent of the total capital expenditure incurred during the period (Table 2).

Table 1: Ministry-wise Revenue Expenditure of Central Government in H1

Item	₹ Thousand crores			Per cent of Total Revenue Expenditure		
	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
1	3	4	5	6	7	8
Ministry of Defence	175	195	175	15.4	15.0	13.3
Ministry of Rural Development	74	72	125	6.5	5.5	9.5
Ministry of Consumer Affairs, Food and Public Distribution	131	126	88	11.5	9.7	6.7
Ministries of Agriculture, Fisheries, Animal Husbandry & Dairying	37	56	72	3.2	4.3	5.5

Source: CGA.

Table 2: Ministry-wise Capital Expenditure of Central Government in H1

Item	₹ Thousand crores			Per cent of Total Capital Expenditure		
	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
1	3	4	5	6	7	8
Ministry of Defence	55	67	58	33.9	35.8	34.8
Ministry of Road Transport and Highways	44	45	41	27.4	24.1	24.5
Ministry of Railways	29	35	29	17.7	18.5	17.2
Ministry of Consumer Affairs, Food and Public Distribution	0	0	11	0.1	0.0	6.7

Source: CGA.

Table 3: Financing of Gross Fiscal Deficit of Central Government

Per cent of H1 GDP at current price

Component	April-September 2015-16	April-September 2016-17	April-September 2017-18	April-September 2018-19	April-September 2019-20	April-September 2020-21
External Financing	0.0	0.1	0.1	-0.1	0.0	0.4
Market Borrowings	4.0	4.0	4.3	3.6	4.9	13.0
Securities Against Small Savings	0.0	-0.0	0.2	0.3	0.6	0.6
National Small Savings Fund	0.6	0.8	0.7	0.7	0.5	0.9
Cash Balance {Decrease(+)/Increase(-)}	0.1	-0.0	0.1	0.0	0.1	0.1
Investment (-) / Disinvestment (+) of Surplus Cash	1.4	2.0	0.8	1.8	0.9	-3.0
Ways & Means Advances	-	-	-	0.3	-	-
Others	-0.4	-0.7	-0.1	-0.1	-0.4	-1.3
Total GFD / Financing	**5.7**	**6.1**	**6.1**	**6.5**	**6.6**	**10.7**

Sources: CGA; Ministry of Statistics and Programme Implementation (MOSPI); and RBI.

b. Financing of Fiscal Deficit

The financing pattern of the GFD of Centre has changed significantly in H1: 2020-21, with a higher share of market borrowings compared to previous years, particularly to compensate for the shortfall in receipts. In fact, market borrowings (13.0 per cent of GDP) are significantly higher than GFD (10.7 per cent of GDP), which is available as surplus cash balance that could potentially moderate additional borrowing requirement for meeting expenditure in H2 (Table 3).

IV. Market Borrowings

Market borrowings for both Centre and states have risen to unprecedented levels in 2020-21 in the wake of the devastating impact of COVID-19 on the economy and government finances (Table 4). In view of the pandemic, while Centre's borrowing calendar has been revised upwards twice in the fiscal year so far, states were allowed increased borrowing limits by an additional 2 per cent of GSDP (partly conditional and partly unconditional) as part of *Aatma Nirbhar Bharat* programme in May 2020.

An analysis at the state level shows a generalised increase in the first half market borrowings as a per cent of full year GFD in 2020-21 compared to the levels in 2019-20. All states except Uttar Pradesh (lying above the no change line across years) have registered an increase, and with a few exceptions, a strong correlation between the levels in 2020-21 and 2019-20 is found suggesting that the increase has been broadly similar across states. The spatial dimension of COVID-19 outbreak on state government finances is evident from the quantum of increase in market borrowings – three states that have registered the highest increases (Maharashtra, Karnataka and Tamil Nadu) are also three of the four states with the highest COVID-19 caseload (Chart 17).

Table 4: Market Borrowings of Central and State Governments

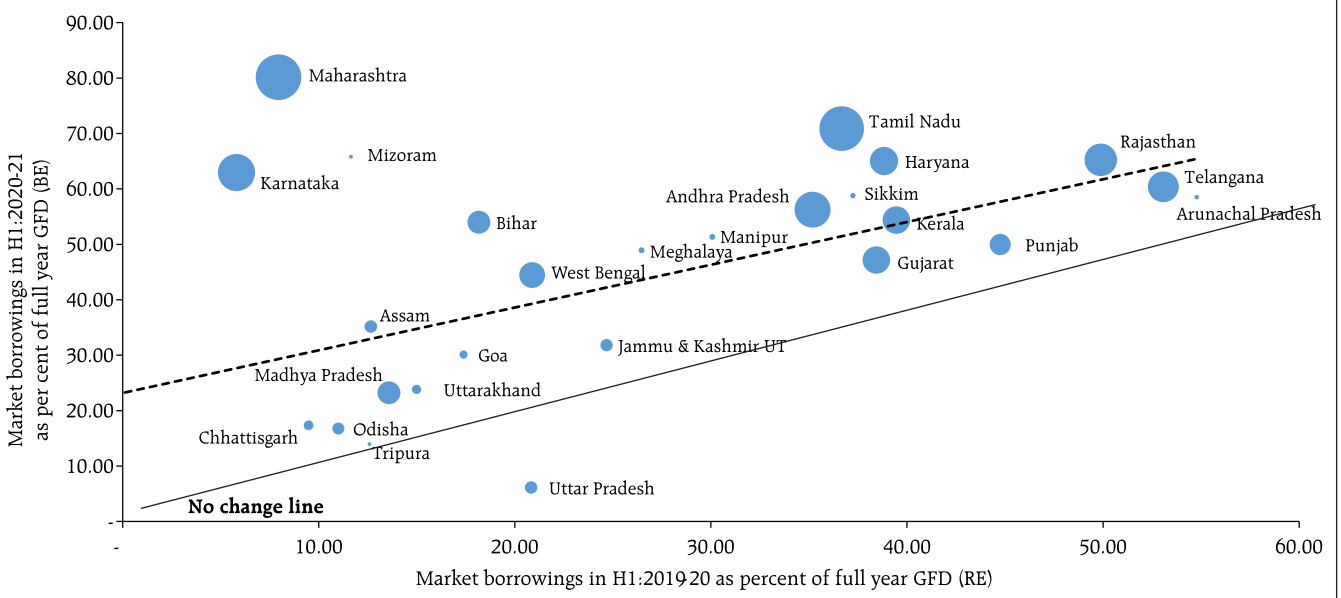
(In ₹ crore)

Item	2020-21 (April1 - November 13, 2020)	2019-20 (April 1 - November 15, 2019)	2020-21 H1 (April - October 2, 2020)	2019-20 H1 (April - September 2019)
Central Government				
Gross Market Borrowings	9,05,000 (116.0)	5,22,000 (73.5)	7,66,000 (98.2)	4,42,000 (62.3)
Net Market Borrowings	7,74,428 (142.1)	4,20,972 (89.0)	6,35,428 (116.6)	3,40,972 (72.1)
State Governments				
Gross Market Borrowings	4,64,132 (65.6)	3,07,306 (49.3)	3,53,596 (50.0)	2,25,445 (36.2)
Net Market Borrowings	3,81,077 (68.0)	2,18,254 (44.9)	2,98,989 (53.3)	1,56,447 (32.2)

Note: Figures in parentheses are per cent to BE.
Source: Weekly Statistical Supplement, RBI.

Financial accommodations availed by states under various facilities available with the Reserve Bank have risen significantly higher in H1:2020-21 compared to the same period in previous years, particularly for Ways and Means Advances (WMA) and Special Drawing

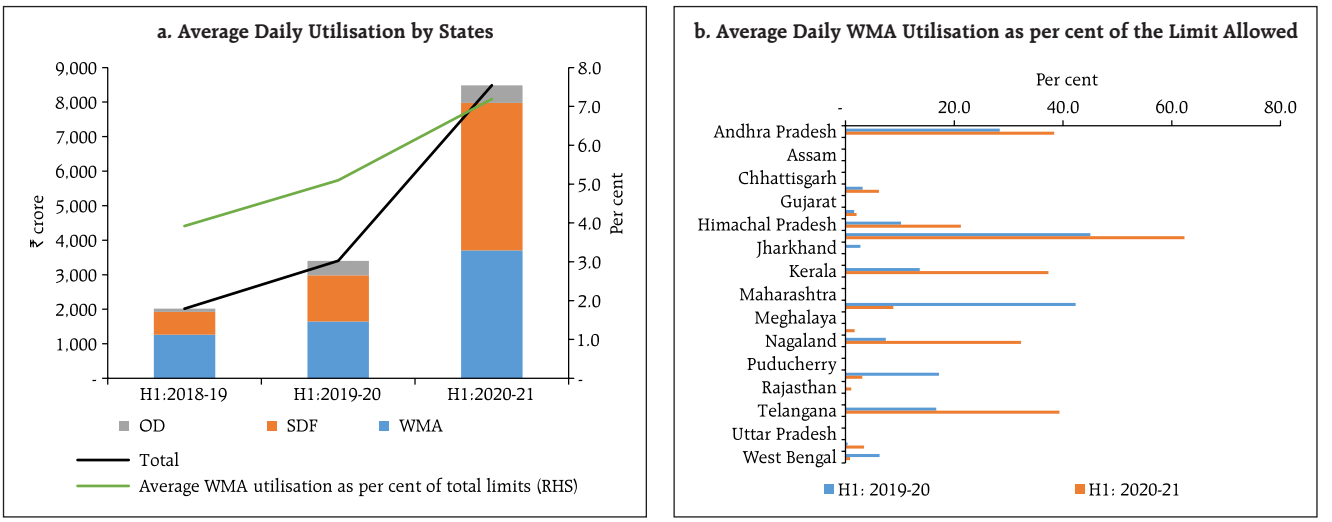
Chart 17: State-wise Net Market Borrowings and GFD



Note: 1. Size of the bubble corresponds to the share of the state in H1:2020-21 market borrowings.
2. With the axes scales being different, a 30 degree line corresponds to no change.
Sources: State Finances: A study of Budgets 2020-21 (RBI); and RBI.

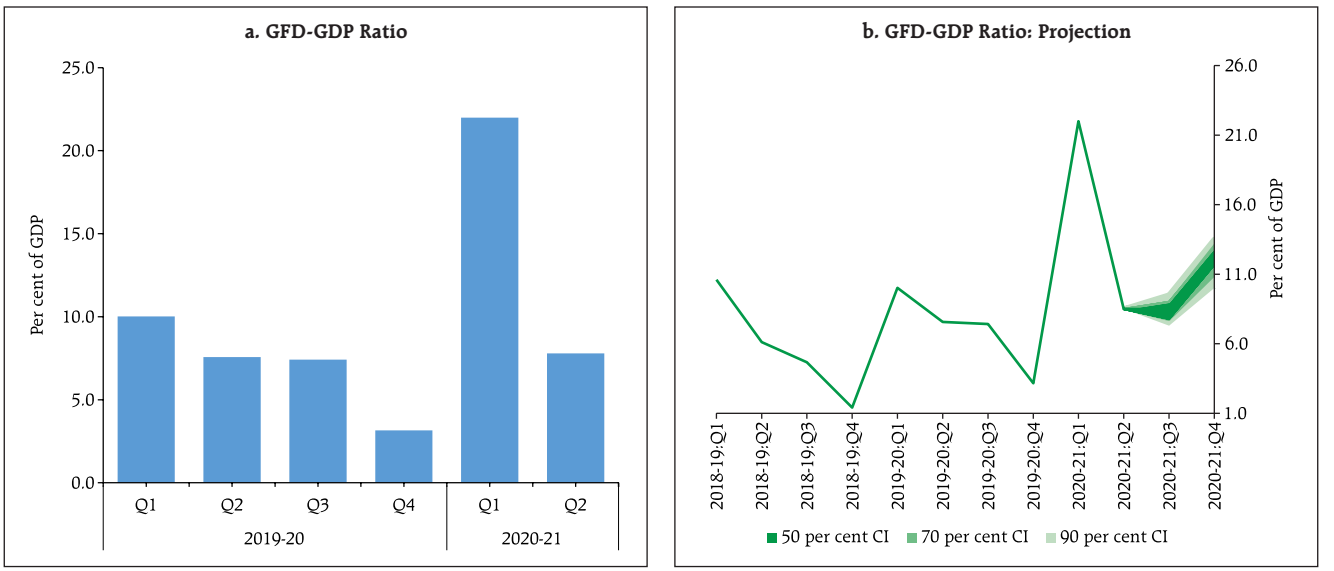
Facility (SDF) (which acts like a special WMA over the normal WMA) (Chart 18a). During the year, as a measure to ease financial pressure and smoothen the borrowing calendar for states, the Reserve Bank increased the WMA limit available with states by 60 per cent. During April - September 2020, thirteen states resorted to WMA, while six states availed the overdraft facility. State-wise, Andhra Pradesh, Jammu and Kashmir, Himachal Pradesh, Kerala, Nagaland and Telangana showed the highest increase in WMA utilisation as a per cent of the limit available, while Manipur, Punjab and West Bengal registered a decline (Chart 18b).

Chart 18: Financial Accommodation Availed by States under Various Facilities Available with the RBI



Note: Chart b contains only states that availed the WMA facility in H1:2019-20 or H1:2020-21.
Sources: RBI Bulletin; and RBI staff estimates.

Chart 19: Combined Government Finances: Actual and Projection



Notes: 1. The thick green shaded area represents 50 per cent confidence interval (CI) implying that there is 50 per cent probability that actual outcome will be within the range given by the thick green shaded area. Like-wise, for 70 per cent and 90 per cent confidence intervals, there is 70 per cent and 90 per cent probability, respectively, that the actual outcomes will be in the range represented by the respective shaded areas.
2. The projected GDP growth for 2020-21, as announced in Reserve Bank's Monetary Policy Review, December 2020, has been used.
3. The actual combined GFD-GDP ratio is for Centre plus 27 states for 2019-20, Centre plus 24 states till Q1:2020-21 and Centre plus 21 states for Q2:2020-21. Projections for GFD-GDP ratio are for Centre and 24 states.

Source: RBI staff estimates.

V. General Government Finances

The Bulletin article on "Government Finances 2019-20: A Half-Yearly Review" published in December 2019, took the first step towards compiling and reporting general government finances data on a quarterly basis, in order to meet India's commitments towards the G-20 Data Gaps Initiative. In continuation of this effort to provide timely fiscal data, general government finances have been compiled on a quarterly basis till Q2:2020-21 (Appendix Table 5). The analysis shows that combined GFD performance deteriorated in H1:2020-21, as GFD as per cent of GDP shot up sharply in Q1:2020-21, primarily due to a shortfall in general government receipts and front-loading of the expenditures coupled with contraction in GDP (Chart 19 a). Going forward, in the second half of 2020-21, while the fisc is likely to benefit from better receipts in line with normalisation of economic activity, the push given through various expenditure measures by the Government, essentially on-budget ones through *Aatma Nirbhar* 2.0 and 3.0 is likely to materialise. Taking into account these developments and assuming major expenditure push – partly in Q3 and mostly in Q4, based on GDP growth as projected in the Reserve Bank's December 2020 monetary policy review, the Q3 and Q4 combined fiscal deficit are projected at 8.3 and 12.4 per cent of GDP, respectively, with corresponding 50 per cent confidence interval estimated at 7.8-8.8 per cent and 11.6-12.9 per cent (Chart 19 b). Accordingly, GFD-GDP ratio is likely to moderate from 14.5 per cent of GDP in H1: 2020-21 to 10.4 per cent of GDP in H2:2020-21.

VI. Way Forward

The GFD for the Union Government in 2020-21 crossed 100 per cent of the budgeted amount by the fourth month of the financial year (*i.e.*, July 2020), and stood at 119.7 per cent of the budgeted amount by October 2020. The revenue deficit stood at 126.7 per cent of the budgeted amount by October 2020, suggesting a deterioration in the quality of expenditure. While seasonality has played a part in this front-loading of deficit for the central government, the sharper than usual build up in fiscal deficit this year is due to the collapse in revenues (especially in Q1 resulting from 22.6 per cent contraction in nominal GDP). For states, H1:2020-21 GFD stood at 58.4 per cent of budgeted amount, significantly higher than the 35-40 per cent observed in a normal year. With deterioration in fiscal balances at both levels of government, the combined GFD (centre *plus* states) in H1:2020-21 stood at 85.9 per cent of BE, significantly higher than 70.0 per cent in H1:2019-20.

Half-yearly trends mask the inter-quarter differences in the evolution of fiscal balances as the higher GFD in H1:2020-21 is entirely attributable to Q1:2020-21, while GFD (as a per cent to BE) in Q2:2020-21 remained at similar levels of the previous two years. GFD being a derived figure, it depends on movements in both receipts and expenditure. In Q1:2020-21, while revenue receipts collapsed, expenditure levels were only marginally lower than the previous year, resulting in a widening of the GFD. While the revenue gap remained, *albeit* to a lesser extent, in Q2, prudent spending allowed correction in the GFD. As such there was reversion of Q2:2020-21 GFD to its normal level (as a per cent of BE) with substantial recovery in revenue receipts along with rationalisation of expenditure. The expenditure rationalisation, however, has been achieved with a cut-down in capital expenditure at both levels of government, which may dampen the recovery in growth. Given the seasonality and the reversion of GFD to its normal levels in Q2:2020-21, the combined GFD is likely to see lower accretion going forward.

Notwithstanding the severe impact of COVID-19 on government finances already realised in H1, it is imperative for centre and states to continue with the counter-cyclical fiscal measures to sustain the momentum of the recovery. Revenue expenditure measures undertaken to enhance social protections to the underprivileged and to address labour market dislocations might need to continue as the recovery is likely to be uneven across sectors. Capital expenditure, which collapsed in H1:2020-21, will need to be scaled up as a priority. Public investment in healthcare, social housing, education and environmental protection is the need of the hour to build a more resilient and inclusive economy. Governments will have to effectively balance between continued fiscal support for the fragile recovery process and addressing the medium-term debt-deficit imbalances, while ensuring good house-keeping and adequate transparency in the fiscal reporting.

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Appendix Tables

Table 1: Budgetary Position of the Central Government during April-September 2020-21

Item	*(₹ thousand crore)*				*(Per cent)*			
	Actuals		**Budget Estimates**		**Percent of BE**		**Y-o-Y Growth Rate**	
	2020-21	**2019-20**	**2020-21**	**2019-20**	**2020-21**	**2019-20**	**2020-21**	**2019-20**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Revenue Receipts	**550.8**	**816.5**	**2020.9**	**1962.8**	**27.3**	**41.6**	**-32.5**	**18.0**
1.1. Tax Revenue (Net)	458.5	607.4	1635.9	1649.6	28.0	36.8	-24.5	4.2
1.2. Non-Tax Revenue	92.3	209.0	385.0	313.2	24.0	66.7	-55.9	91.8
1.3. Interest Receipts	5.7	6.5	11.0	13.7	52.1	47.3	-11.3	10.9
2. Capital Receipts	**14.6**	**20.6**	**225.0**	**119.8**	**6.5**	**17.2**	**-28.9**	**16.2**
2.1. Recovery of Loans	8.9	8.2	15.0	14.8	59.2	55.6	7.5	5.8
2.2. Other Receipts	5.8	12.4	210.0	105.0	2.8	11.8	-53.2	24.3
3. Total Receipts (1+2)	**565.4**	**837.1**	**2245.9**	**2082.6**	**25.2**	**40.2**	**-32.5**	**18.0**
4. Revenue Expenditure	**1313.6**	**1301.1**	**2630.1**	**2447.8**	**49.9**	**53.2**	**1.0**	**14.0**
of which								
(i) Interest Payments	305.7	270.7	708.2	660.5	43.2	41.0	12.9	6.0
5. Capital Expenditure	**165.8**	**187.5**	**412.1**	**338.6**	**40.2**	**55.4**	**-11.6**	**15.3**
of which								
(i) Loans and Advances	17.4	14.8	31.8	27.8	54.7	53.4	17.1	40.8
6. Total Expenditure (4+5)	**1479.4**	**1488.6**	**3042.2**	**2786.3**	**48.6**	**53.4**	**-0.6**	**14.1**
7. Revenue Deficit (4-1)	**762.8**	**484.6**	**609.2**	**485.0**	**125.2**	**99.9**	**57.4**	**7.7**
8. Fiscal Deficit (6-3)	**914.0**	**651.6**	**796.3**	**703.8**	**114.8**	**92.6**	**40.3**	**9.6**
9. Gross Primary Deficit {8-4 (i)}	**608.3**	**380.9**	**88.1**	**43.3**	**690.2**	**879.8**	**59.7**	**12.2**

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

Table 2: Quarterly Position of Central Government Finances

Item	(₹ thousand crore)				(Per cent)					
	Q1		Q2		Per cent of Budget Estimates				Y-o-Y Growth Rate	
					Q1		Q2		2020-21	
	2020-21	2019-20	2020-21	2019-20	2020-21	2019-20	2020-21	2019-20	Q1	Q2
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Revenue Receipts	**150.0**	**284.9**	**400.8**	**531.6**	**7.4**	**14.5**	**19.8**	**27.1**	**-47.3**	**-24.6**
1.1. Tax Revenue (Net)	134.8	251.4	323.7	356.0	8.2	15.2	19.8	21.6	-46.4	-9.1
1.2. Non-Tax Revenue	15.2	33.5	77.1	175.6	3.9	10.7	20.0	56.1	-54.6	-56.1
1.3. Interest Receipts	1.6	3.3	4.1	3.2	14.8	23.8	37.3	23.5	-50.0	27.9
2. Capital Receipts	**3.6**	**4.8**	**11.1**	**15.8**	**1.6**	**4.0**	**4.9**	**13.2**	**-25.0**	**-30.1**
2.1. Recovery of Loans	3.6	2.4	5.3	5.8	23.9	16.2	35.3	39.3	48.4	-9.4
2.2. Other Receipts	0.0	2.4	5.8	10.0	0.0	2.2	2.8	9.5	-100.0	-42.2
3. Total Receipts (1+2)	**153.6**	**289.7**	**411.8**	**547.4**	**6.8**	**13.9**	**18.3**	**26.3**	**-47.0**	**-24.8**
4. Revenue Expenditure	**727.7**	**658.7**	**585.9**	**642.4**	**27.7**	**26.9**	**22.3**	**26.2**	**10.5**	**-8.8**
of which										
(i) Interest Payments	160.5	141.8	145.2	128.9	22.7	21.5	20.5	19.5	13.2	12.6
5. Capital Expenditure	**88.3**	**63.0**	**77.6**	**124.5**	**21.4**	**18.6**	**18.8**	**36.8**	**40.1**	**-37.7**
of which										
(i) Loans and Advances	13.9	6.0	3.4	8.8	43.9	21.7	10.8	31.7	131.4	-61.1
6. Total Expenditure (4+5)	**815.9**	**721.7**	**663.5**	**766.9**	**26.8**	**25.9**	**21.8**	**27.5**	**13.1**	**-13.5**
7. Revenue Deficit (4-1)	**577.7**	**373.8**	**185.1**	**110.8**	**94.8**	**77.1**	**30.4**	**22.8**	**54.5**	**67.1**
8. Fiscal Deficit (6-3)	**662.4**	**432.1**	**251.6**	**219.5**	**83.2**	**61.4**	**31.6**	**31.2**	**53.3**	**14.6**
9. Gross primary Deficit {8-4 (i)}	**501.9**	**290.3**	**106.5**	**90.6**	**569.4**	**670.6**	**120.8**	**209.2**	**72.9**	**17.6**

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

Table 3: Budgetary Position of the State Governments during April-September 2020-21

Item	(₹ thousand crore)			(Per cent)			
	Provisional actuals data			Per cent of BE		Y-o-Y Growth Rate	
	2018-19	2019-20	2020-21	2019-20	2020-21	2019-20	2020-21
1	2	3	4	5	6	7	8
1. Revenue Receipts	**834.9**	**855.4**	**713.9**	**38.2**	**30.7**	**2.5**	**-16.5**
1.1. Tax Revenue	628.2	633.4	496.6	39.5	30.6	0.8	-21.6
1.2. Non-Tax Revenue	63.6	61.8	45.8	31.2	20.9	-2.8	-25.9
1.3. Grants-in-aid and Contributions	143.1	160.2	171.5	36.5	35.7	12.0	7.0
2. Capital Receipts	**6.9**	**12.1**	**1.5**	**22.2**	**10.0**	**76.0**	**-87.8**
2.1. Recovery of Loans and Advances	6.8	12.1	1.4	22.8	13.0	77.4	-88.2
2.2. Other Receipts	0.1	0.1	0.1	3.1	1.4	-32.5	-11.3
3. Revenue Expenditure	**840.8**	**906.7**	**911.5**	**40.1**	**38.3**	**7.8**	**0.5**
of which							
(i) Interest Payments	84.7	103.8	113.9	40.1	39.6	22.6	9.8
4. Capital Expenditure	**137.8**	**137.2**	**88.9**	**30.8**	**20.0**	**-0.4**	**-35.2**
4.1. Capital Outlay	122.6	119.6	80.1	29.1	19.7	-2.4	-33.1
4.2. Loans and Advances Disbursed	15.3	17.6	8.8	52.1	22.6	15.3	-49.8
5. Fiscal Deficit [(3+4) - (1+2)]	**136.8**	**176.4**	**285.0**	**42.6**	**58.4**	**29.0**	**61.6**
6. Revenue Deficit (3-1)	**5.9**	**51.3**	**197.6**	**212.7**	**340.9**	**775.8**	**285.1**

Source: Comptroller and Auditor General of India.

Table 4: Quarterly Position of State Government Finances

Item	(₹ thousand crore)				(Per cent)					
	Provisional (actuals) data				Per cent of Budget Estimates				Y-o-Y Growth Rate	
	Q1		Q2		Q1		Q2		2020-21	
	2020-21	2019-20	2020-21	2019-20	2020-21	2019-20	2020-21	2019-20	Q1	Q2
1. Revenue Receipts	**315.6**	**388.0**	**398.2**	**467.4**	**13.6**	**17.3**	**17.1**	**20.9**	**-18.6**	**-14.8**
1.1. Tax Revenue	200.9	299.3	295.7	334.1	12.4	18.7	18.2	20.8	-32.9	-11.5
1.2. Non-Tax Revenue	19.8	28.4	26.0	33.4	9.0	14.4	11.8	16.9	-30.3	-22.1
1.3. Grants-in-aid and Contributions	94.9	60.3	76.6	99.9	19.8	13.7	16.0	22.8	57.4	-23.4
2. Capital Receipts	**0.6**	**1.0**	**0.9**	**11.1**	**4.2**	**1.9**	**5.8**	**20.3**	**-39.8**	**-92.3**
2.1. Recovery of Loans and Advances	0.6	1.0	0.8	11.1	5.5	1.9	7.5	21.0	-39.6	-92.6
2.2. Other Receipts	0.0	0.0	0.0	0.0	0.5	1.6	0.9	1.5	-44.2	25.0
3. Revenue Expenditure	**450.1**	**405.8**	**461.3**	**500.9**	**18.9**	**17.9**	**19.4**	**22.1**	**10.9**	**-7.9**
of which										
(i) Interest Payments	51.7	42.8	62.2	61.0	18.0	16.5	21.6	23.6	20.9	2.0
4. Capital Expenditure	**32.3**	**57.2**	**56.6**	**80.0**	**7.3**	**12.8**	**12.7**	**18.0**	**-43.5**	**-29.3**
4.1. Capital Outlay	29.8	52.8	50.3	67.1	7.4	12.9	12.4	16.3	-43.6	-25.1
4.2. Loans and Advances Disbursed	2.5	4.7	6.3	12.9	6.5	13.9	16.2	38.3	-46.1	-51.2
5. Fiscal Deficit [(3+4)-(1+2)]	**166.2**	**74.0**	**118.9**	**102.4**	**34.1**	**17.9**	**24.4**	**24.7**	**124.6**	**16.0**
6. Revenue Deficit (3-1)	**134.5**	**17.8**	**63.1**	**33.5**	**232.0**	**74.0**	**108.9**	**138.8**	**653.8**	**88.6**

Source: Comptroller and Auditor General of India.

Table 5: Combined Government Finances (as per cent of GDP)

Item	2019-20				2020-21		2019-20	2020-21
	Q1	Q2	Q3	Q4	Q1	Q2	H1	H1
Tax Revenue	13.1	16.0	14.9	17.5	9.9	13.1	14.6	11.7
Non-Tax Revenue	3.0	7.1	4.0	6.4	3.9	3.8	5.0	3.9
Capital Receipts	0.1	0.6	0.3	1.2	0.1	0.3	0.3	0.2
Total Receipts	16.1	23.7	19.2	25.1	14.0	17.2	19.9	15.7
Total Expenditure	26.2	31.3	26.6	28.2	36.0	24.9	28.7	29.9
Revenue Expenditure	23.7	26.9	23.4	23.9	33.1	22.2	25.3	27.1
Capital Expenditure	2.5	4.4	3.2	4.3	2.9	2.8	3.4	2.8
Gross Fiscal Deficit	10.0	7.6	7.4	3.2	22.0	7.8	8.8	14.1
Revenue Deficit	7.6	3.8	4.5	0.0	19.2	5.3	5.7	11.5

Note: Data is as per Provisional Accounts of the Union and the State Government finances.
Data pertains to Union Government and broadly 27 states for 2019-20, 24 states for Q1:2020-21, 21 states for Q2:2020-21.

Table 6: Chronology of Major Policy Announcements to Mitigate the Impact of COVID-19

Date of Announcement	Policy Announcements by the Government of India
March 14, 2020	Norms for assistance from State Disaster Response Fund (SDRF) were issued.
March 24, 2020	• Relaxations in statutory and compliance matters were made, such as, extension of deadline for filing income tax/ Goods and Services Tax (GST) returns, payments under *Vivad se Vishwas* scheme, various corporate matters *etc.* • Bank charges for digital trade transactions for trade finance consumers were reduced. • Threshold of default under Section 4 of the Insolvency and Bankruptcy Code (IBC) was raised from ₹1 lakh to ₹1 crore to prevent triggering of insolvency proceedings against micro, small and medium enterprises (MSMEs) which are going through a phase of financial distress.
March 26, 2020 (*Pradhan Mantri Garib Kalyan Yojana*)	• 5 kg wheat/rice per member and 1 kg of pulses per family per month would be provided free of cost for 3 months. • *Jan Dhan* women account-holders would be given an ex-gratia of ₹500 per month for three months. • Direct Benefit Transfers (DBT) would be made to poor *Divyang*, widows and senior citizens. • Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) wages would be increased by ₹20. • Gas cylinders would be provided free of cost for 3 months to poor families. • Medical insurance would be provided to health workers fighting COVID-19. • The first instalment of ₹2,000 due in 2020-21 under the *Pradhan Mantri Kisan Samman Nidhi* (PM-KISAN) will be front-loaded in April 2020. • State governments will be directed to utilize funds available under District Mineral Fund for COVID-19 health response. • State governments will be directed to utilize Welfare Fund for Building and Other Construction Workers to provide support to construction workers. • Collateral free lending limit for Women Self Help Groups would be increased from ₹10 lakhs to ₹20 lakhs. • Mandatory Employee Provident Fund (EPF) contribution, on the part of both employee and employer, shall be borne by government for three months for low wage earners in businesses with less than 100 workers. • EPF Regulations will be amended to include pandemic as the reason to allow non-refundable advance of 75 percent of the amount or three months of wages, whichever is lower, from accounts.
March 30, 2020	Benefit of 2 per cent interest subvention to banks and 3 per cent prompt repayment incentive for all farmers was extended up to May 31, 2020 for all crop loans up to ₹3 lakh given by banks, due between March 01 and May 31, 2020.
March 31, 2020	• The Taxation and Other Laws (Relaxations of Certain Provisions) Ordinance, 2020 provided relaxation in compliance and enforcement of a plethora of economic laws. • Foreign Trade Policy, 2015-20 was extended for a year and other relaxations and exemptions were granted in the field of exports and imports procedures.

Table 6: Chronology of Major Policy Announcements to Mitigate the Impact of COVID-19 *(Contd.)*

Date of Announcement	Policy Announcements by the Government of India
April 03, 2020	Advance release of central government's first instalment of State Disaster Risk Management Fund for the year 2020-21, amounting to ₹11,092 crore, with a view to augment funds available with the state governments.
April 08, 2020	It was announced that all pending income-tax refunds up to ₹5 lakh, and all pending GST and custom refunds would be issued immediately, amounting to total refund of ₹18,000 crore.
April 09, 2020	₹15,000 crore was approved for 'India COVID-19 Emergency Response and Health System Preparedness Package'.
April 18, 2020	The extant Foreign Direct Investment (FDI) policy was amended for curbing opportunistic takeovers/acquisitions of Indian companies due to COVID-19 pandemic.
May 13, 2020 (*Aatma Nirbhar Bharat* 1.0– Part I)	• ₹3 lakh crore collateral free loans with 100 per cent credit guarantee cover would be extended to standard businesses/MSMEs. • ₹20,000 crore subordinate debt with partial credit guarantee support would be extended to non-performing asset (NPA)/stressed MSMEs. • Fund of funds with corpus of ₹10,000 crores would be created for equity funding of MSMEs with growth potential and viability. • Definition of MSMEs would be revised to extend benefits to larger number of firms. • Global tenders for government procurement would be disallowed up to ₹200 crores to support Make in India and e-market linkages for MSMEs will be promoted. • MSME receivables from Government/Central Public Sector Enterprises (CPSEs) will be released in 45 days. • ₹2,500 crore EPF support for eligible businesses and workers will be extended for 3 more months (June to August 2020). • For other businesses and workers, EPF contribution will be reduced to 10 per cent each, for 3 months-will provide liquidity of ₹6,750 crore. • ₹30,000 crore special liquidity scheme will be launched for nonbank financial companies (NBFCs)/housing finance companies (HFCs)/microfinance institutions (MFIs). • The partial credit guarantee scheme will be extended to cover borrowings of NBFCs, HFCs, and MFIs. • Electricity distribution companies (DISCOMs) will be infused with ₹90,000 crore liquidity. • Central Public Sector Generation Companies will give rebate to DISCOMS, which shall be passed on to the final consumers (industries). • Measures to de-stress real estate and construction will be taken, contracts will be extended by 6 months by government agencies. • Tax Deducted at Source (TDS)/ Tax Collected at Source (TCS) rates will be reduced by 25 per cent for remaining period of 2020-21. • Dates for filing of income tax return and payment under *Vivad se Vishwas* scheme were further extended.

Table 6: Chronology of Major Policy Announcements to Mitigate the Impact of COVID-19 *(Contd.)*

Date of Announcement	Policy Announcements by the Government of India
May 14, 2020 (*Aatma Nirbhar Bharat Abhiyan* 1.0– Part II)	• Free food grains will be provided to migrants who are not beneficiaries of National Food Security Act (NFSA)/State Card, for 2 months. • 83 per cent of Public Distribution System (PDS) population will be covered under One Nation One Ration Card scheme by August 2020 for national portability of PDS benefits (100 per cent by March 2021). • Affordable Rental Housing Complexes (ARHC) will be developed and incentivized for migrant workers/urban poor. • Interest subvention of 2 per cent will be provided for prompt payees of MUDRA-*Shishu* loans for a period of 12 months. • ₹5,000 crore special credit facility will be extended to street vendors. • Credit linked subsidy scheme for middle income group under *Pradhan Mantri Awas Yojana* (PMAY)-Urban will be extended up to March 2021 to provide ₹70,000 crore boost to housing sector. • Compensatory Afforestation Fund Management and Planning Authority (CAMPA) funds will be utilized for afforestation and plantation works to create job opportunities. • ₹30,000 crores additional emergency working capital funding will be provided to farmers through NABARD. • ₹2 lakh crore concessional credit will be extended to 2.5 crore farmers through *Kisan* Credit Cards.
May 15, 2020: (*Aatma Nirbhar Bharat Abhiyan* 1.0- Part III)	• Financing facility of ₹1,00,000 crore will be provided for funding agriculture infrastructure projects at farm-gate and aggregation points. • ₹10,000 crores scheme will be launched for formalisation of Micro Food Enterprises (MFE). • ₹20,000 crores will be allocated for development of fisheries through *Pradhan Mantri Matsya Sampada Yojana* (PMMSY). • Animal Husbandry Infrastructure Development Fund of ₹15,000 crore will be set-up to support private investment in dairy. • Herbal cultivation and beekeeping initiatives will be promoted. • Operation Greens will be extended from Tomatoes, Onion and Potatoes (TOP) to all fruits and vegetables. • Essential Commodities Act, 1955 will be amended to deregulate certain food items. • Central law will be formulated for barrier free inter-state trade. • Facilitative legal framework that includes risk mitigation, assured returns, and quality standardization will be framed to enable farmers to engage with processors/aggregators/ large retailers.

Table 6: Chronology of Major Policy Announcements to Mitigate the Impact of COVID-19 *(Contd.)*

Date of Announcement	Policy Announcements by the Government of India
May 16, 2020: (*Aatma Nirbhar Bharat Abhiyan* 1.0- Part IV)	• Private sector participation in commercial coal production and exploration will be permitted; coal gasification/liquefaction will be incentivized; ease of doing business measures will be undertaken; coal bed methane extraction rights will be auctioned from Coal India Limited's (CIL's) coal mines; concessions in commercial terms will be given to CIL's consumers. • Infrastructure development of ₹50,000 crore will be undertaken in coal sector. • Seamless composite exploration-cum-mining cum-production regime will be introduced for enhancing private investments in the mineral sector; 500 mining blocks will be offered; bauxite and coal mineral blocks will be jointly auctioned; distinction between captive and non-captive mines will be removed; Mineral Index for different minerals is being developed; stamp duty payable for mining lease will be rationalized. • A list of weapons/platforms with ban on imports will be notified; imported spares will be indigenized; Ordnance Factory Board will be corporatised; foreign direct investment limit in defence manufacturing under automatic route will be raised to 74 per cent; time-bound defence procurement process will be ushered in. • Air-space will be managed efficiently leading to reduction in flying cost by ₹1,000 crore per year; world-class airports will be developed through public-private partnership (PPP). • PPP will be encouraged for establishment of research reactors for production of medical isotopes, irradiation technology for food preservation; Technology Development cum Incubation Centres will be set up. • Quantum of viability gap funding for private sector investment in social infrastructure projects will be enhanced with outlay of ₹8,100 crore. • New tariff policy for power sector will be released and power utilities in union territories will be privatized. • Private sector will be allowed to use ISRO facilities to improve their capacities; liberal geo-spatial data policy will provide remote-sensing data to tech-entrepreneurs; planetary exploration and outer space travel will be opened for private sector.
May 17, 2020: (*Aatma Nirbhar Bharat Abhiyan* 1.0- Part V)	• Health and wellness centres in rural and urban areas will be ramped up; infectious diseases hospital blocks will be set up in all districts; lab and surveillance network will be strengthened; and National Digital Health Blueprint will be implemented under the National Digital Health Mission. • PM e-*VIDYA* programme, *Manodarpan* for psycho-social support, new National Curriculum and Pedagogical framework, and National Foundational Literacy and Numeracy Mission will be launched. • Special insolvency resolution framework for MSMEs will be notified; fresh initiation of insolvency proceedings will be suspended up to one year; COVID-19 related debt will be excluded from the definition of "default" under IBC for the purpose of triggering insolvency proceedings; private companies which list Non-Convertible Debentures (NCDs) on stock exchanges will not be regarded as listed; penalties for all defaults for small companies/one-person companies/producer companies/start-ups will be lowered. • Offences (involving minor technical and procedural defaults) under Companies Act will be decriminalized.

Table 6: Chronology of Major Policy Announcements to Mitigate the Impact of COVID-19 *(Contd.)*

Date of Announcement	Policy Announcements by the Government of India
	• List of strategic sectors requiring presence of Public Sector Enterprises (PSEs) in public interest would be notified; in strategic sectors, at least one enterprise will remain in the public sector but private sector will also be allowed; in other sectors, PSEs would be privatized; and to minimise wasteful administrative costs, number of enterprises in strategic sectors will be only one to four. • Borrowing limits of states will be increased to 5 per cent of Gross State Domestic Product (GSDP) for 2020-21, partly linked to specific reforms, leading to extra resources of ₹4.28 lakh crore. • MGNREGA allocation for 2020-21 will be increased by ₹40,000 crore.
June 12, 2020	GST relaxations will be provided to small taxpayers through reduction in late fee, and one-time extension in period for seeking revocation of cancellation of registration.
June 30, 2020	Free provision of food-grains under *Pradhan Mantri Garib Kalyan Anna Yojana* was extended till November 2020.
August 6, 2020	The second instalment of the COVID-19 Emergency Response and Health System Preparedness Package amounting to ₹890.3 crore was released by the Government of India to 22 states/union territories.
October 12, 2020 (*Aatma Nirbhar Bharat Abhiyan* 2.0)	• Leave Travel Concession (LTC) Cash Voucher Scheme and Special Festival Advance Scheme to be provided to government employees. • A special interest-free 50-year loan of ₹12,000 crore to be issued by Central Government to States for capital expenditure. • Additional budget of ₹25,000 crore to be allocated for capital expenditure on roads, defence, water supply, urban development and domestically produced capital equipment.
October 23, 2020	Ex-gratia payment of difference between compound interest and simple interest was granted for six months to borrowers in specified loan accounts.
November 12, 2020 (*Aatma Nirbhar Bharat Abhiyan* 3.0)	• *Aatma Nirbhar Bharat Rozgar Yojana* was launched to incentivize job creation during COVID-19 recovery. • Emergency Credit Line Guarantee Scheme for MSMEs, businesses, MUDRA borrowers, and individuals (loans for business purposes), was extended till March 31, 2021. • 10 more Champion Sectors will be covered under the Production Linked Incentives Scheme to help boost competitiveness of domestic manufacturing. • ₹18,000 crore additional outlay was provided for PM *Awaas Yojana* – Urban. • Relaxation of Earnest Deposit Money and Performance Security on government tenders was provided to support ease of doing business and for relief to contractors. • Income tax relief was provided for developers & home buyers. • ₹6,000 crore equity investment will be infused in debt platform of National Investment and Infrastructure Fund (NIIF).

Table 6: Chronology of Major Policy Announcements to Mitigate the Impact of COVID-19 *(Concld.)*

Date of Announcement	Policy Announcements by the Government of India
	• ₹65,000 crore will be provided to ensure increased supply of subsidised fertilisers. • Additional outlay of ₹10,000 crore will be provided for PM *Garib Kalyan Rozgar Yojana* to provide rural employment. • ₹3,000 crore boost will be provided to EXIM Bank for promoting project exports under Indian Development and Economic Assistance Scheme (IDEAS Scheme). • ₹10,200 crore additional budget stimulus will be provided for capital and industrial expenditure on domestic defence equipment, industrial infrastructure and green energy. • ₹900 crore will be provided to Department of Biotechnology for Research and Development of Indian COVID Vaccine.

Rural-Urban Inflation Dynamics in India *

This article highlights that rural and urban inflation in India exhibit similar dynamics – in terms of trend, cycle, persistence and volatility – notwithstanding sporadic divergences which do not last long. Empirical findings on the presence of a long run cointegrating relationship between them, a statistically significant error correction process restoring alignment, and convergence across states validate the relevance of the inflation target as the nominal anchor at the national level for both rural and urban areas as well as all states.

Introduction

In a very diverse country like India, characterised by a large share of rural population (68.8 per cent as per Census 2011) and high dependence on agriculture and allied activities for livelihoods (57.8 per cent of rural workers in usual status as per Periodic Labour Force Survey 2018-19), it becomes imperative to examine the behavior of rural and urban inflation to understand their implications for policy making. Ignoring the regional dimensions of inflation may limit the effectiveness of a single monetary policy in adequately meeting the requirements of all regions equally (Weber and Beck, 2005; Weyerstrass *et al.* 2011) and may make inferences about economic outcomes misleading (Brandt and Holz, 2006).

Large and persistent divergence between rural and urban inflation could result in differences in real wage rates, real interest rates and inflation expectations which can pose challenges for monetary policy. From an operational perspective, such divergence, if persists, can further complicate generating reliable model-based forecast of inflation, which acts as the intermediate target of monetary policy under the flexible inflation targeting (FIT) framework. Against this backdrop, examining the dynamics of rural and urban inflation - in terms of their trend, drivers, volatility, persistence and convergence - to understand their implications for monetary policy is the main motivation of this article.

The remainder of the article is organised as follows. Section II presents an analysis of rural and urban inflation to understand the nature and pattern of inflation diversity/convergence. Section III reviews select literature on regional inflation divergence to draw inferences on their relevance to and implications for monetary policy. The co-movement of rural and urban inflation at the aggregate (all-India) level along with the nature of convergence of state level rural and urban inflation is tested in Section IV. Section V sets out the concluding observations.

II. Stylised Facts

Headline CPI inflation[1] witnessed significant and sustained moderation during 2012-13 to 2018-19, before rising thereafter. Both rural and urban inflation exhibited a similar trend with the only difference that urban inflation started rising from 2018-19. Moreover, annual average urban inflation which was ruling below rural inflation till 2017-18, moved above it during 2018-19 and 2019-20 (Chart 1a). Both food and non-food inflation contributed to the divergence between urban and rural inflation (Chart 1b).

Contributions of major groups to annual inflation, however, mask intra-year movements in inflation in the rural and urban areas, given significant differences in the composition of the CPI baskets. It can be observed from monthly data that rural and

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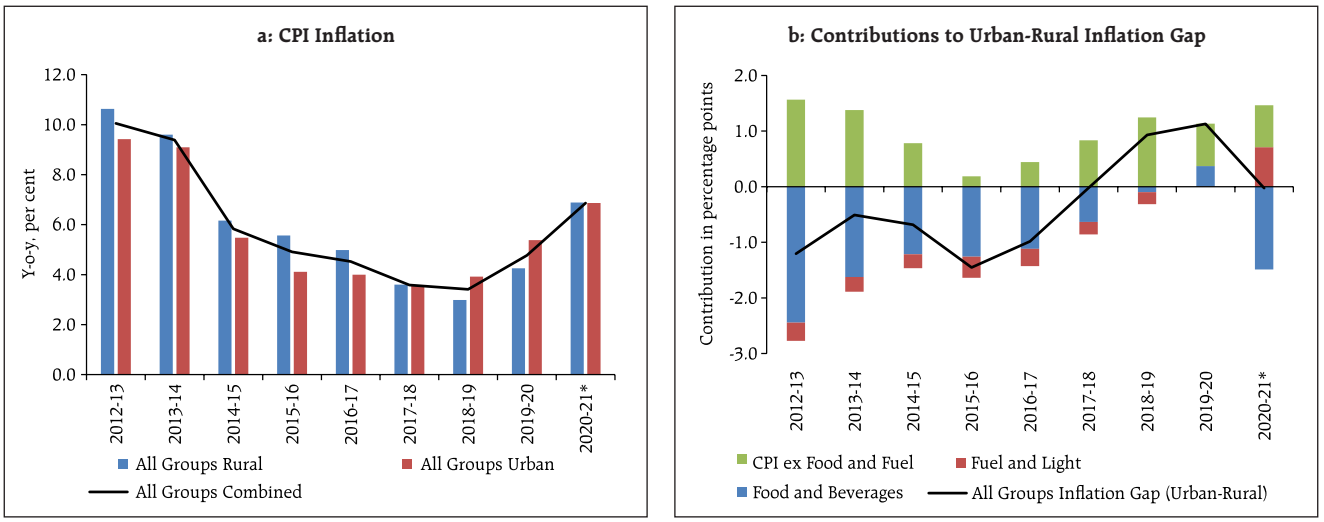
[1] In India, headline inflation is measured by the year-on-year per cent change in the all-India Consumer Price Index-Combined (CPI-C) series with base year 2012=100 released by the National Statistical Office (NSO), Ministry of Statistics and Programme Implementation (MOSPI), Government of India and it has been used to define the inflation target under the flexible inflation targeting (FIT) framework since August 2016. The CPI-C, in turn, is constructed following a bottom-up approach by first compiling price index at the item level and then at the sub-group/group level for both rural and urban areas across states, which are then combined using respective fixed weights.

Chart 1: Rural-Urban Inflation Differential



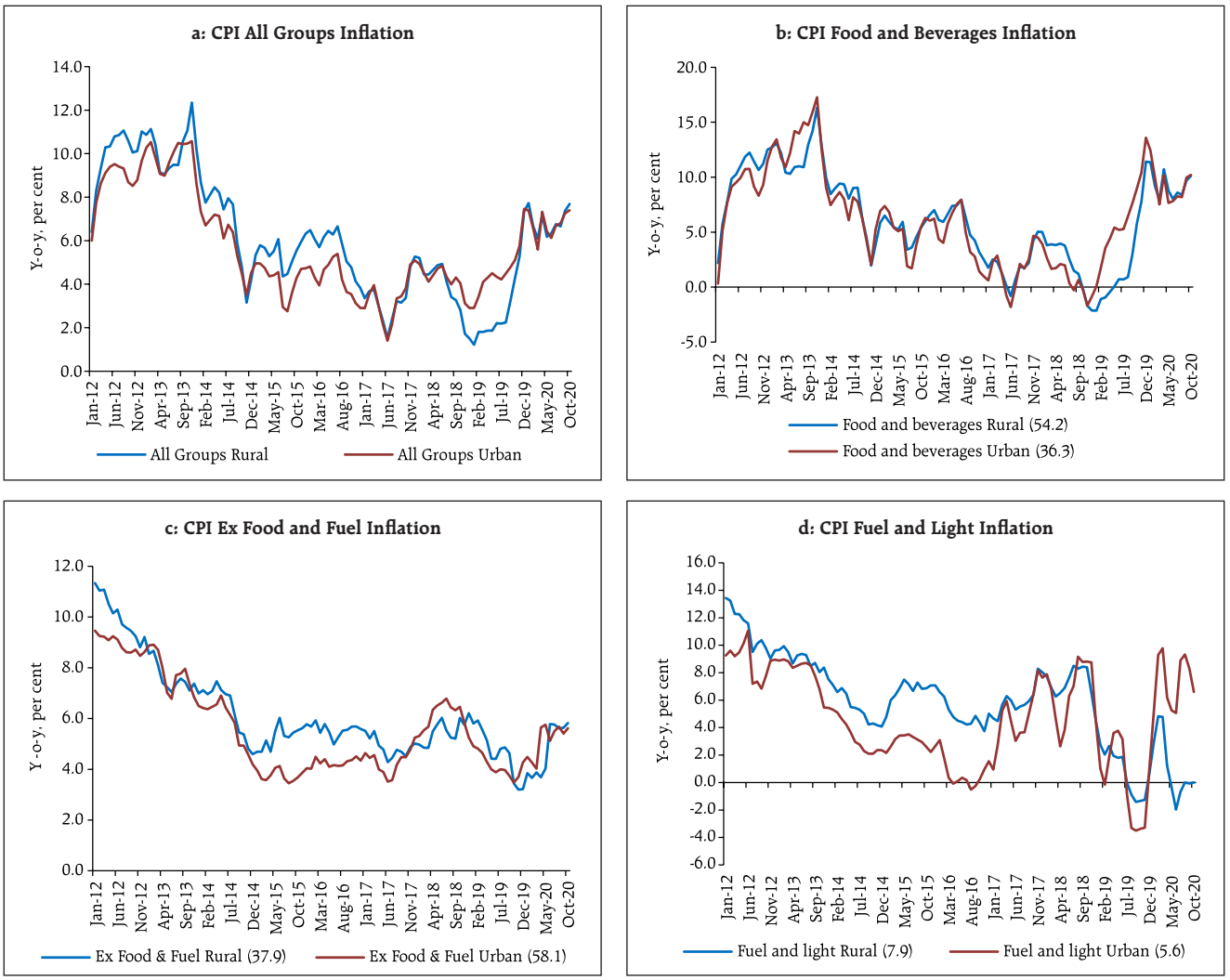
*: April - October.
Source: National Statistical Office (NSO) and RBI staff estimates.

urban all groups inflation have often diverged during 2012-2020, but the divergence has not persisted long, suggesting the existence of a long-run relationship between them (Chart 2a). This is further corroborated by the fact that the divergence has been driven not by any single component over time but by different components of CPI – food, fuel and excluding food and fuel items – during different periods. For instance, the observed divergence between rural and urban inflation during 2018-2019 period largely mirrored the divergence in food inflation reflecting supply shocks (Chart 2b), while the divergence during 2015-2016 period was caused by excluding food and fuel inflation (Chart 2c). On the other hand, fuel inflation exhibits occasional large differences between rural and urban areas, reflecting the differences in the consumption pattern, increasingly market-linked pricing of fossil fuels and subdued price pressures in traditional fuel items like firewood and chips and dung cakes in rural areas (Chart 2d). In 2020-21 so far, headline inflation has firmed up further reflecting the impact of COVID-19 induced lockdown measures and associated supply chain disruptions. Rural and urban inflation, however, have displayed significant convergence, broadly mirroring the trends in food price inflation after April-May 2020. This could be attributed to the nature of the spread of COVID-19 and imposition of various lockdown measures to contain the spread, which was initially confined to urban areas before eventually spreading to rural areas.

A deeper investigation into the food inflation dynamics reveals that generally urban food price inflation turns out to be higher than rural food price inflation during periods of upswings in food prices, while the opposite happens during downswings. This phenomenon is observed in both vegetables (perishables) and other food items, *i.e.*, food ex-vegetables. Such asymmetric behavior could partly be explained by supply chain disruptions like floods, unseasonal rainfall or transporters' strikes that make transportation of food items sourced from rural areas to urban areas difficult, which in turn lead to opportunistic pricing and hence higher urban food price inflation. However, as the supply situation normalises and the easing cycle starts, urban price fall faster as urban sellers seek to liquidate their stocks.

In the case of fuel group, after remaining high till 2018-19, rural fuel inflation started easing

Chart 2: CPI Inflation - Rural *vis-à-vis* Urban



Note: Figures in parentheses represent weights in respective CPI baskets.
Source: NSO and RBI staff estimates.

significantly thereafter owing to penetration of clean fuel like liquefied petroleum gas (LPG) [due to Pradhan Mantri Ujjwala Yojana (PMUY)] and electricity [due to Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Pradhan Mantri Sahaj Bijli Har Ghar Yojana – Saubhagya], which eased price pressure in items like firewood and chips. In ex-food and fuel category, the gap between rural and urban inflation has narrowed significantly in last three years, driven mainly by clothing and footwear, health, personal care and effects, and household goods and services. Penetration of various government funded health schemes [such as Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) and other state level health insurance schemes] in rural areas would also have contributed in narrowing the gap.

Thus, while different components have driven the divergence between rural and urban inflation in different episodes, the divergence has not persisted unidirectionally over time. As the comparison of inflation between rural and urban areas is based on the two price indices (and not raw prices), it is important to note that part of the divergence may arise from the way the price indices are constructed, *i.e.*, because of

the differences in coverage, sampling, price collection mechanism, and weights of items/sub-groups/groups in respective CPI baskets. For instance, the food group has higher weight in rural CPI (54.2 per cent) than urban CPI (36.3 per cent), while there is no housing component in rural CPI (Table 1). Another important difference was in the price collection mechanism - with National Statistical Office (NSO) collecting prices in urban areas and post offices doing the same for rural areas until October 2018, when NSO was assigned this job for both rural and urban CPI.

Table 1: Comparison of CPI-Rural and CPI-Urban Basket Composition

	Rural	Urban	Combined
Universe	**All India Rural Households**	**All India Urban Households**	
Centres/price quotations	**1181 village markets covering all the districts of the country with 268351 quotations**	**1114 urban markets distributed over 310 towns of the country with 281001 quotations**	
Items covered	**225**	**250**	**299**
Weights of Major Groups and Sub-groups			
	Rural	**Urban**	**Combined**
Cereals and products	12.4	6.6	9.7
Meat and fish	4.4	2.7	3.6
Egg	0.5	0.4	0.4
Milk and products	7.7	5.3	6.6
Oils and fats	4.2	2.8	3.6
Fruits	2.9	2.9	2.9
Vegetables	7.5	4.4	6.0
Pulses and products	3.0	1.7	2.4
Sugar and confectionery	1.7	1.0	1.4
Spices	3.1	1.8	2.5
Non-alcoholic beverages	1.4	1.1	1.3
Prepared meals, snacks, sweets etc.	5.6	5.5	5.6
Food and beverages	**54.2**	**36.3**	**45.9**
Pan, tobacco and intoxicants	**3.3**	**1.4**	**2.4**
Clothing	6.3	4.7	5.6
Footwear	1.0	0.9	1.0
Clothing and footwear	**7.4**	**5.6**	6.5
Housing	**-**	**21.7**	**10.1**
Fuel and light	**7.9**	**5.6**	**6.8**
Household goods and services	3.8	3.9	3.8
Health	6.8	4.8	5.9
Transport and communication	7.6	9.7	8.6
Recreation and amusement	1.4	2.0	1.7
Education	3.5	5.6	4.5
Personal care and effects	4.3	3.5	3.9
Miscellaneous	27.3	29.5	28.3
Ex Food and Fuel	**37.9**	**58.1**	**47.3**
All Groups	**100.0**	**100.0**	**Rural: 53.5**
			Urban: 46.5

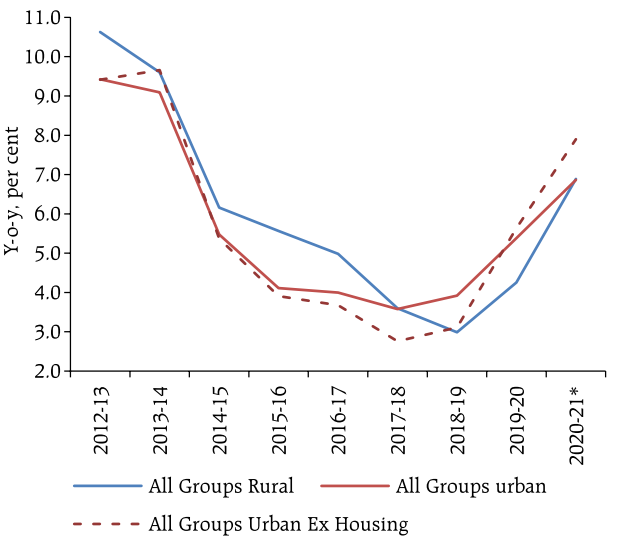
Note: Housing group is not part of rural CPI.
Source: NSO and Das *et al.*, 2017.

Even after adjusting for housing to make rural and urban inflation more comparable, annual average CPI urban inflation is found to have remained below rural all through up to 2017-18; and higher since 2019-20 (Chart 3).

An analysis of key summary statistics reveals that rural and urban inflation behave similar to CPI-C (headline) inflation, particularly in terms of mean and volatility (as measured by the standard deviation of monthly y-o-y inflation) (Table 2). The mean and volatility of food inflation in the two areas are even closer.

Sub national policy changes as well as asymmetric impact of national policy changes can also cause divergence in regional inflation. Policy changes in China played an important role in determining the price index differences between rural and urban areas for a certain period (Zhang Xuechun, 2010). In India,

Chart 3: CPI Inflation



*: April-October.
Source: NSO and RBI staff estimates.

Table 2: All-India, Rural and Urban Inflation - Summary Statistics

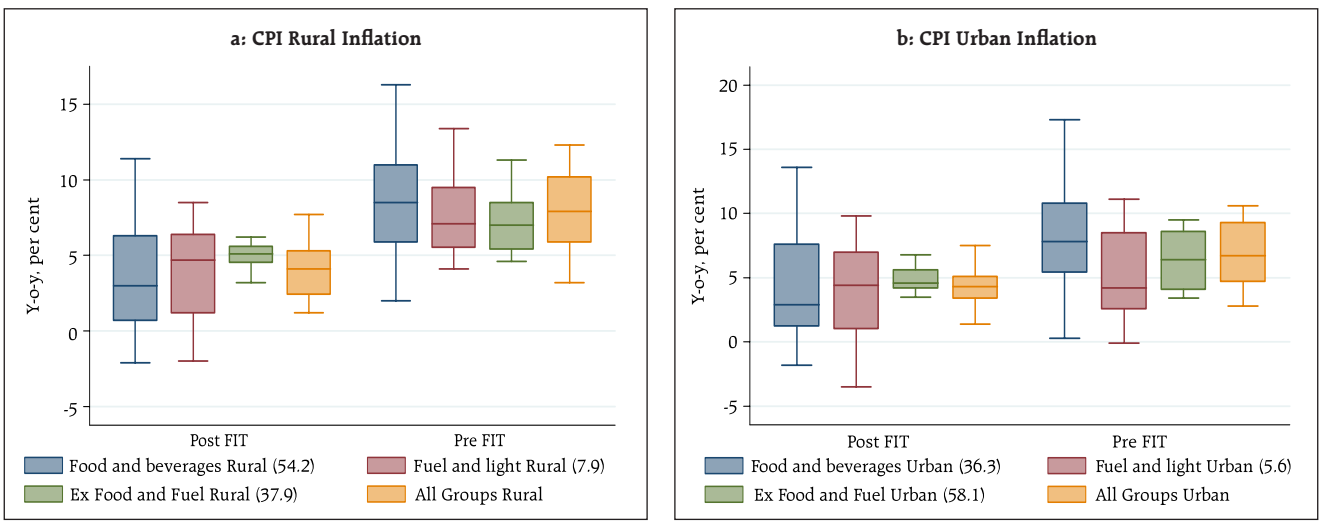
	Weights in Respective CPIs	January 2012-October 2020 (Full Sample)						
		Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
CPI-C Inflation	**100.0**	**5.9**	**5.4**	**11.5**	**1.5**	**2.6**	**0.5**	**2.1**
Food	45.9	6.2	6.2	16.7	-1.7	4.2	0.1	2.2
Fuel	6.8	5.4	5.4	11.9	-2.2	3.1	-0.1	2.9
Ex-food and fuel	47.3	5.8	5.1	10.3	3.4	1.7	1.0	3.0
Rural Inflation	**100.0**	**6.1**	**5.9**	**12.3**	**1.2**	**2.8**	**0.3**	**2.1**
Food	54.2	6.2	6.0	16.3	-2.1	4.2	0.0	2.1
Fuel	7.9	5.9	6.3	13.4	-2.0	3.4	-0.3	2.9
Ex-food and fuel	37.9	6.1	5.6	11.3	3.2	1.8	1.2	3.9
Urban Inflation	**100.0**	**5.8**	**4.9**	**10.6**	**1.4**	**2.4**	**0.6**	**2.2**
Food	36.3	6.2	6.2	17.3	-1.8	4.3	0.3	2.4
Fuel	5.6	4.6	4.4	11.1	-3.5	3.5	-0.2	2.3
Ex-food and fuel	58.1	5.6	4.9	9.5	3.4	1.8	0.8	2.3

Source: NSO and RBI staff estimates.

policy interventions in the form of tax, subsidies, agricultural marketing reforms and penetration of targeted welfare schemes would have also contributed to regional price differences, primarily due to asymmetric impact depending on the coverage/ access. In fact, there was a marked downward shift in overall inflation and major groups' inflation in rural and urban areas during 2016-2020, *albeit* with some differences, which coincided with the adoption of FIT framework in India (Chart 4).

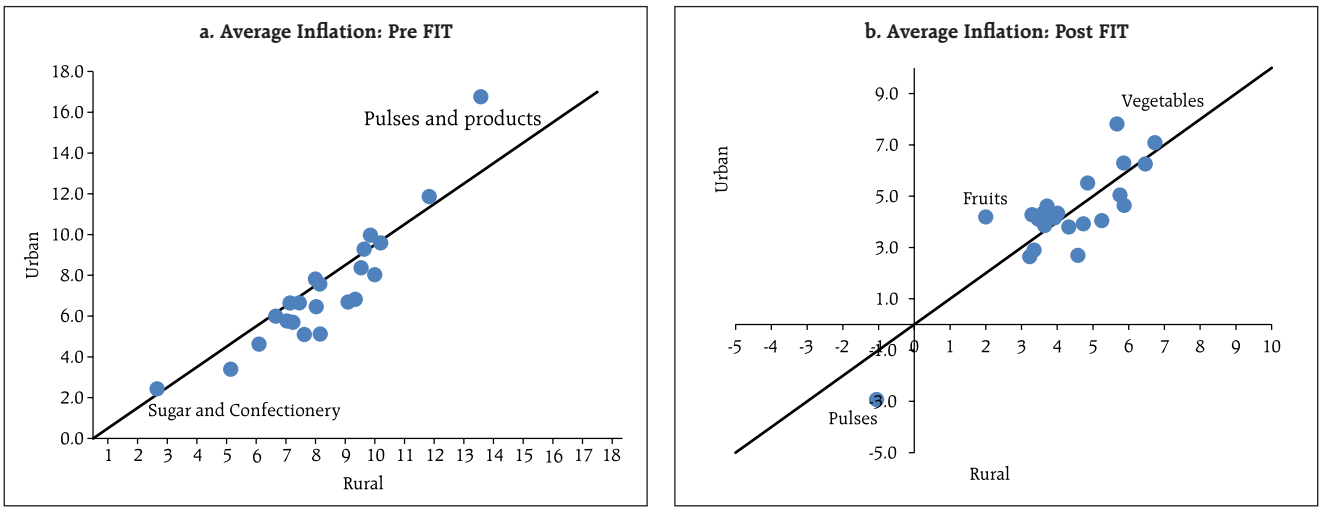
At the sub-groups level, rural inflation was higher than urban inflation prior to the adoption of FIT for most of the components. Post FIT, inflation in the subgroups seem to be clustered around 4 per cent, indicating a general reduction in inflation dispersion across the components, excluding a few such as perishables like fruits and vegetables, and pulses (Chart 5).

Chart 4: CPI Rural and Urban Inflation in Major Groups: Pre- and Post-FIT



Note: Pre-FIT period covers January 2012-July 2016 and Post-FIT period covers August 2016 to October 2020. Figures in parentheses represent weights of the groups in respective CPIs.
Source: NSO and RBI staff estimates.

Chart 5: CPI-Rural and CPI-Urban Subgroups Inflation: Pre- and Post-FIT (Monthly Averages for the period)



Note: Pre-FIT period covers January 2012-July 2016 and Post-FIT period covers August 2016 to October 2020.

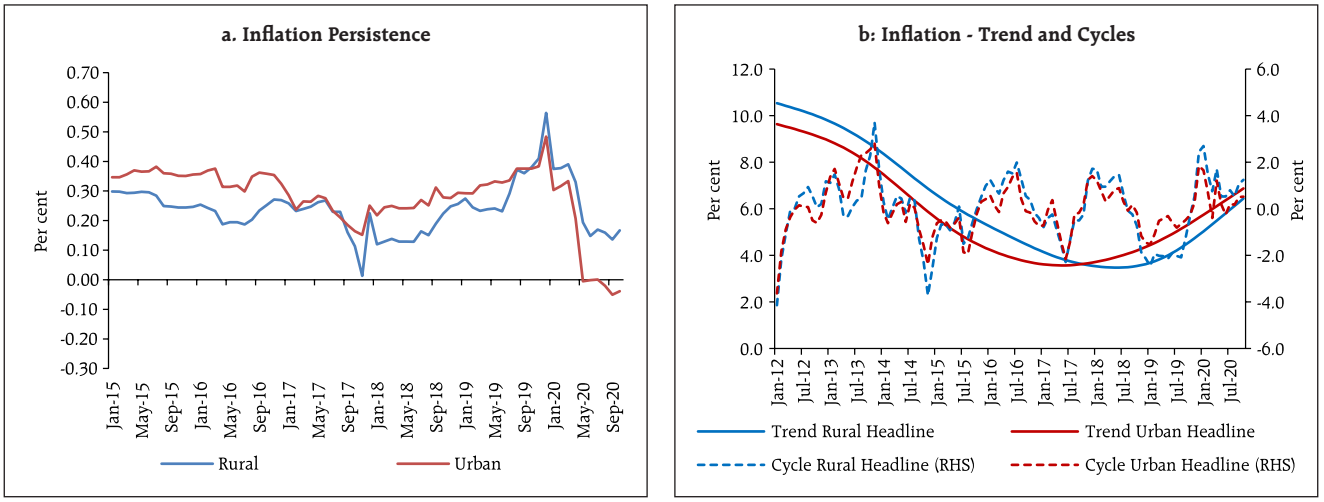
The marked shift in inflation was accompanied by moderation in inflation persistence or backward-looking price setting behavior, for both rural and urban areas until 2018, *albeit* with some differences (Chart 6.a). Subsequently, inflation persistence increased in both rural and urban areas on shocks to food prices from unseasonal and excessive rains impacting crops and supply disruptions, before falling[2] again with the gradual normalisation of supply chains. A decomposition of headline inflation into trend and cycle reveals similar behavior in trend inflation in both urban and rural areas, *albeit* with a relatively early reversal of declining trend in urban inflation compared to rural inflation (Chart 6.b). It is, however, interesting to note that the cyclical components in both rural and urban inflation have largely behaved similarly.

III. Literature Review

Inflation dynamics at the regional level gained particular significance in the literature after the adoption of the Euro in the Euro-area (Weber and Beck, 2005 and Beck *et al.*, 2009). Regional price dynamics in other major economies like the USA has also been analysed to draw relevant lessons for the euro-area-wide average inflation target based on Harmonized Index of Consumer Prices (HICP) (Cecchetti *et al.*, 2002). Given that, a single target for the entire country/common currency area (CCA) makes sense only when inflation rates in different countries in the CCA/regions of an economy are not very different from each-other, policy makers often devote attention to the reasons behind inflation differences. Inflation differentials could represent rigidities in the economy, translating into loss of competitiveness (Alberola, 2000) and could also have a potentially destabilising asymmetric effect due to differences in real interest rates (Beck *et al.*, 2009). A number of studies have investigated the reasons for the observed inflation differentials (Hendrikx and Chapple, 2002; ECB, 2003; ECB, 2005). Some of the reasons for divergence in inflation rates among European Union countries include differential impact of exchange rate movements (Honohan and Lane, 2003, 2004), inflation persistence (Angeloni and Ehrmann, 2004) and the role of supply shocks *vis-à-vis* demand shocks (Duarte and Wolman, 2002). Among emerging market economies (EMEs), a study for China highlights the role of policy changes, urban-rural retail

[2] The AR coefficients for the recent period *i.e.* May-October 2020 are not significant at 5 per cent level of significance especially for urban inflation.

Chart 6: CPI Rural and Urban Inflation - Persistence and Trend



Note: Inflation persistence is calculated based on first significant AR coefficient and a rolling window of 48 months on month-on-month change in the seasonally adjusted price indices (*i.e.*, on price momentum). Trend and cycles for CPI Rural and Urban inflation have been worked out using HP filter.
Source: NSO and RBI staff estimates.

sales of consumer goods, degree of urbanisation and fixed asset investment in explaining rural-urban price differences (Zhang Xuechun, 2010). Systematic differences in prices of goods and services across regions may imply differences in the costs of living; therefore, ignoring spatial price differences while explaining economic outcomes can be misleading (Brandt and Holz, 2006).

A related strand of literature has examined the mean reverting behavior and the overall cross-regional dispersion of inflation rates. Building on the work of Barro and Sala-i-Martin (1992), a study on inflation rates of individual regions of the European Union reveals fall in inflation dispersion during certain time period and significant mean reverting behavior, *albeit* at a relatively modest rate (Weber and Beck, 2005). A slow rate of convergence in prices has also been documented for the US cities (Cecchetti *et al.*, 2002). Along similar lines, a study for China using cointegration and error correction technique concluded that rural price level converges to the urban price level (Zhang Xuechun, 2010). An investigation into the compliance with the Law of One Price (LOP) across six regions of Argentina for the period 2016-2019 suggests the existence of convergence in prices and cointegration across regions (González, 2020).

In the case of India, majority of the literature has focused on the factors that influence regional inflation dynamics, which include transportation costs, natural endowments of the states, restrictions on factor mobility, region-specific consumption items, inflation persistence, expenditure and tax policies of state governments, per capita income growth and other supply side and structural factors (Das and Bhattacharya, 2008; Jha and Dhal, 2019; Patnaik, 2016). On higher observed rural inflation than urban inflation, Bhandari and Srinivas (2015) concluded that structural bottlenecks are not letting rural Indians benefit fully from global disinflation. Inflation differential among the states could also be explained by convergence of prices and the subsequent inflation catch-up occurring at the state level (Patnaik, 2016). Notwithstanding observed wide dispersion in inflation across states driven by food price inflation, state level inflation tends to converge to the national inflation over time, underpinning the choice of national level CPI inflation as the nominal anchor for monetary policy in India (Kundu *et al.*, 2018).

IV. Co-integration and Convergence

Given the close co-movement between rural and urban inflation (at the all-India level) over time, an empirical exercise is conducted in a single equation framework using fully modified ordinary least squares (FMOLS) (Phillips and Hansen, 1990) on monthly inflation data for January 2012-October 2020 to test the existence of a long-run equilibrium relationship between the two. As both rural and urban inflation series were found to be non-stationary at level but with same order of integration [*i.e.*, I(1)], the following single equation cointegrating regression (*i.e.*, long run equation) was estimated using FMOLS:

$$urban\ inflation_t = \alpha + \beta\ rural\ inflation_t + \gamma 1\ DUM\ 2013 + \gamma 2\ DUM2018 + u_t \quad \ldots. (1)$$

where DUM2013 (May-August 2013=1, '0' otherwise) is introduced to capture the taper tantrum impact and temporary aberration in the direction of divergence between rural and urban inflation, while DUM2018 (October 2018 to October 2019=1, '0' otherwise) is introduced to account for the shift in the data collection system for rural CPI, from post offices to the NSO field staff, in October 2018.

In the next step, similar to widely used Engle-Granger (1987) two-step approach (Gerrard and Godfrey, 1998), the one period-lagged equilibrium error ($\hat{u}_{t-1}$) from eq.(1) was used for estimating the error correction mechanism (ECM) using OLS as:

$$\Delta urban\ inflation_t = \alpha + \beta 1\ \Delta rural\ inflation_t + \beta 2\ \hat{u}_{t-1} + \epsilon_t \quad \ldots. (2)$$

where Δ is the difference operator and $\beta 2$ is the coefficient of the error correction term. A negative and significant $\beta 2$ captures the speed of adjustment towards the long-run equilibrium.

The Engle-Granger tau-statistic and z-statistic from the estimated eq.(1) confirm presence of a long-run cointegrating relationship between rural and urban inflation (Table 3). Moreover, the coefficient of error correction term in eq.(2) [$\beta 2 =$ (-) 0.12] was also found to be statistically significant with the expected negative sign, suggesting that 12 per cent of the previous period's disequilibrium[3] (*i.e.*, the deviation between the actual and long-run) is corrected every month. The residual diagnostics tests suggest absence of serial correlation and heteroscedasticity indicating robustness of the estimates. The stability of the parameter estimates is also validated by the cumulative sum of squares (CUSUM) test (Chart 7).

Since all-India rural and urban CPI are compiled as a weighted sum of state level rural and urban price indices, it is interesting to examine the behaviour of rural and urban inflation at the state

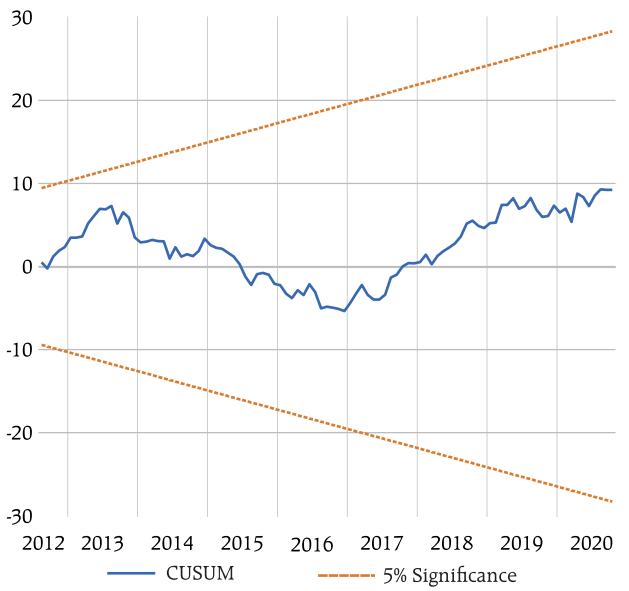
Table 3: Co-integration Results

	Coefficient	P-value
Long-run Estimates (Dependent Variable: Urban Inflation)		
Rural inflation	0.88***	0.00
DUM 2013	1.60***	0.01
DUM 2018	1.88***	0.00
Constant	0.12	0.71
Diagnostics		
Adj. R^2	0.93	
Engle-Granger tau-statistic	-3.76**	0.02
Engle-Granger z-statistic (H0: Series are not co-integrated)	-25.39***	0.01
Short-run Estimates (Dependent Variable: Δ Urban Inflation)		
Δ Rural inflation	0.78***	0.00
Δ Rural inflation (-1)	-0.18**	0.04
Δ Urban inflation (-1)	0.19*	0.06
ecm (-1)	-0.12**	0.03
Constant	0.00	0.99
Diagnostics		
Adj. R^2	0.77	
Breusch-Godfrey LM test for serial correlation (F-statistic) (H0: No serial correlation)	1.75	0.18
Breusch-Pagan-Godfrey test for heteroskedasticity (F-statistic) (H0: Homoskedasticity)	1.58	0.19

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

[3] Adjustment to long run equilibrium was found to be bidirectional.

Chart 7: Stability Test (CUSUM)

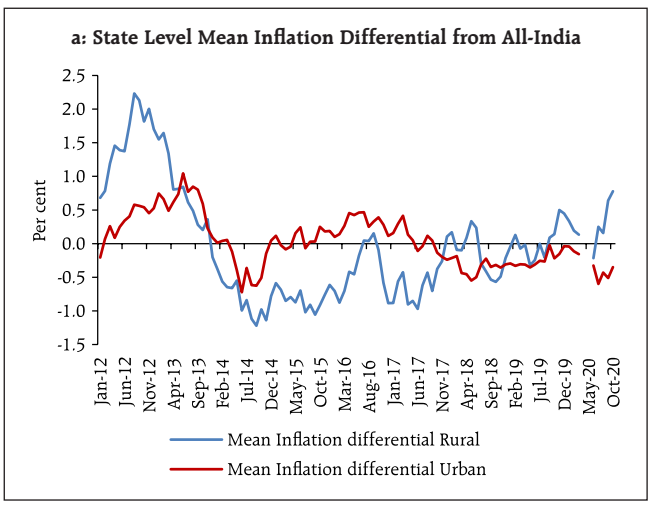


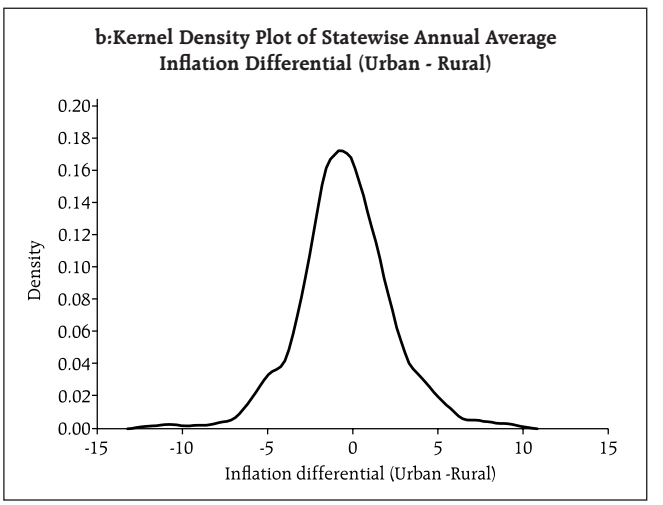
level. The state-level mean rural and urban inflation differentials with respect to all India rural and urban inflation, respectively, have fallen over time implying convergence of state wise rural (urban) inflation to all India rural (urban) inflation (Chart 8.a). Rural and urban inflation seems to be converging across states as evident from the more or less symmetric nature of the estimated kernel density plot of the state wise annual average differential between urban and rural inflation during 2012-13 to 2019-20 (Chart 8.b). The inflation spread moves in a wide range and the distribution is also leptokurtic implying differing extent of rural-urban linkages.

The variability of rural and urban inflation across states from the national average shows the absence of any particular trend, suggesting relative stability in the relationship between rural and urban inflation across states (Chart 9). The prevailing regional dispersion of inflation thus does not undermine inferences and analysis based on national level inflation metric.

Against this backdrop, a formal test of convergence between urban and rural inflation across states was conducted in a random effects panel regression model for the period 2012-13 to 2019-20 taking 35[4] states and union territories (UTs). Drawing from the literature (Weber and Beck, 2005), β convergence, which allows identification of the speed of unconditional

Chart 8: Inflation Differential Across States

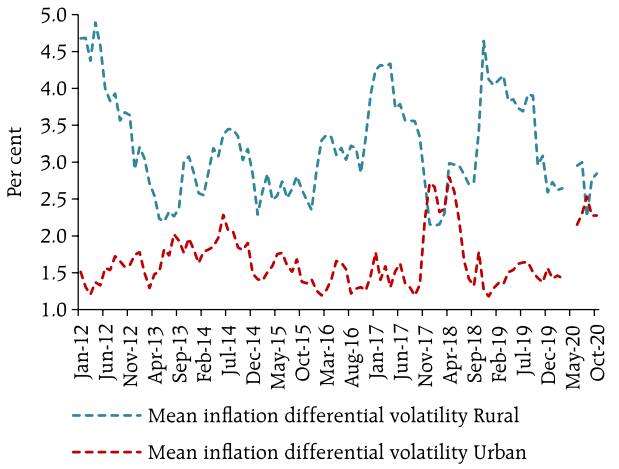




Note: State wise CPI data for April-May 2020 has not been released by the NSO in view of problems in data collection during the COVID-19 induced nationwide lockdown.
Kernel= Epanechnikov.
Source: NSO and RBI staff estimates.

[4] Arunachal Pradesh is not considered as CPI urban is not published on a regular basis for this state.

Chart 9: Inflation Differential Variability Across States



Note: State wise CPI data for April-May 2020 has not been released by the NSO in view of problems in data collection during the COVID-19 induced nationwide lockdown.

Table 4: Results of the Beta Convergence Test[6] (Panel Results)

Explanatory Variables	Dependent Variable: Δ Inflation Gap (Urban-Rural) (35 States and UTs; Period : 2012-13 to 2019-20)#	
	Coefficient	z-value
$\pi_{i_{ut-1}} - \pi_{i_{rt-1}}$ $(Inflation\ Gap_{i,t-1})$	-0.64	-9.63***
constant	-0.27	-2.68***
No. of observations	245	
Wald chi²(1)	92.66***	
R-squared	within = 0.3062, between = 0.2982, overall = 0.3044	

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

#: State wise CPI data for April-May 2020 has not been released by the NSO due to problems in data collection during the COVID-19 induced nationwide lockdown and therefore this exercise stops in 2019-20.

Source: RBI staff estimates.

convergence was tested by estimating the following equation:

$$\Delta(\pi_{i_{ut}} - \pi_{i_{rt}}) = \alpha + \beta(\pi_{i_{ut-1}} - \pi_{i_{rt-1}}) + \epsilon_{it} \quad \ldots. (3)$$

Where, Δ is the difference operator, i represents states, $\pi_{i_{ut}}$ and $\pi_{i_{rt}}$ are state wise urban and rural annual average inflation, respectively, and ϵ_{it} is the error term. A negative sign of β[5] signifies existence of convergence and its (absolute) size reflects the speed of convergence. In other words, negative sign of β would imply that states with an initial relatively high urban-rural inflation gap would experience increase in inflation more slowly (or decrease in inflation faster) in the subsequent period than states with an initial relatively low urban-rural inflation gap. Thus, the existing urban-rural inflation rate gap across states would diminish. The results of our analysis confirm existence of β convergence, *i.e.*, convergence of rural urban inflation across states and that any shocks to inflation at the state level dissipates at a reasonable speed (Table 4). The Breusch-Pagan Lagrange Multiplier (LM) test suggests that an OLS regression is better suited than a random effects panel regression and, therefore, the OLS results are also reported as a robustness check (Table 5).

The empirically observed co-movement of rural and urban inflation at the aggregate level as well

Table 5: Results of the Beta Convergence Test (OLS Results)

Explanatory Variables	Dependent Variable: Δ Inflation Gap (Urban-Rural) (35 States and UTs; Period : 2012-13 to 2019-20)#	
	Coefficient	t-value
$\pi_{i_{ut-1}} - \pi_{i_{rt-1}}$ $(Inflation\ Gap_{i,t-1})$	-0.64	-6.20***
constant	-0.27	-1.63
No. of observations	245	
F (1, 243)	38.46***	
R-squared	0.3045	

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

#: State wise CPI data for April-May 2020 has not been released by the NSO due to problems in data collection during the COVID-19 induced nationwide lockdown and therefore this exercise stops in 2019-20.

Source: RBI staff estimates.

[5] As pointed in Weber and Beck, 2005; it may be noted that - unlike in the growth literature - the reported measures for the adjustment speed lack a sound theoretical foundation. Still, they can give some idea on how fast convergence occurs.

[6] A random effects generalized least squares regression was carried out. The choice between random effects and fixed effects panel estimation was based on the Hausman test.

as convergence at the state level suggests that one inflation rate at the national level captures the overall inflation dynamics in India well.

V. Conclusion

Rural urban inflation dynamics in India reveals close co-movement, with episodic divergences driven by different components – food, fuel or ex-food and fuel – which do not persist long. Both trend and cyclical components are found to be similar for urban and rural inflation. Gradual decline in inflation persistence in the pre COVID-19 period (up to 2018) was also observed for rural and urban inflation.

Empirical estimates reveal that the observed differentials between rural and urban inflation are transient and both exhibit a long-run equilibrium relationship, with a significant error correction in the short-run. At the state level also urban and rural inflation rates converge over time. These findings support the relevance of one inflation target as the nominal anchor at the national level for both rural and urban areas as well as all states.

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*Managing Exchange Rate Volatility in the Time of COVID-19**

In the wake of outbreak of COVID-19, emerging market currencies witnessed considerable volatility. In response to the Reserve Bank's conventional and unconventional tools including forex market interventions, volatility, measured by a variety of indicators, normalised quickly after the surge in March and remained lower than in stress episodes in the past.

Introduction

In the wake of the outbreak of COVID-19, the unprecedented policy response and the heightened uncertainty worldwide, large swings in prices of various asset classes such as currency, bond, equity and credit were observed. Emerging market currencies in particular, witnessed considerable volatility, beginning with large risk-off outflows in March 2020 exerting massive depreciation pressure (OECD, June 2020), including on the Indian Rupee (INR), the worst sell-off in equity markets since the Global Financial Crisis (GFC) and record lows in long-term bond yields in many advanced countries. Global growth was revised down repeatedly by the International Monetary Fund (IMF), World Bank and the rating agencies in the first half of the year, with downgrades of the employment and demand outlook. International crude oil prices crashed to historic lows in April due to a collapse of demand.

In the months following the outbreak of the pandemic, the Reserve Bank deployed several conventional and unconventional tools in order to ensure financial stability and orderly conditions in financial markets. The Reserve Bank's policy on the exchange rate of the rupee has been to allow it to be determined by market forces, with interventions only to maintain orderly market conditions by containing excessive volatility in the exchange rate, without reference to any pre-determined target level or band. Disorderly movements in the exchange rate can often have a deleterious impact on trade and investment, besides endangering overall macroeconomic and financial stability (Janak Raj, *et al.* 2018). Short term exchange rate variability has been found to influence Foreign Direct Investment (FDI) flows (Goldberg, 2009). The logic is that investors require compensation for risks that exchange rate movements introduce, altering expected returns on investment. If exchange rates are highly volatile, the expected values of investment projects are reduced, and FDI slows down accordingly. Trade-deterring effect of real exchange rate volatility has also been found, as the value of exports by firms as well as their probability of entering new export markets decrease for destinations with higher exchange rate volatility (Hericourt *et al*, 2013). Another study highlighted that when there is an unexpected fluctuation in exchange rates, exporters adjust to the change in the level of risk either by increasing export prices or by decreasing trade volumes, but often prefer to directly reduce trade volumes rather than increase prices (Cheong *et al*, 2005).

In a recent study for India, it was observed that realised volatility (historical volatility) in USD-INR is a key component of the Financial Stress Index (FSI), which in turn has statistically significant negative correlation with the Index of Industrial Production (IIP) and can act as a leading indicator for predicting IIP (or real economic activity) (Manjusha, *et al.* 2020). In the past, high FSI values were observed in well-known stress events in 2008, 2011, 2013, *etc.*, which were also characterised by low IIP values (and high INR realised volatility). Thus, realised volatility

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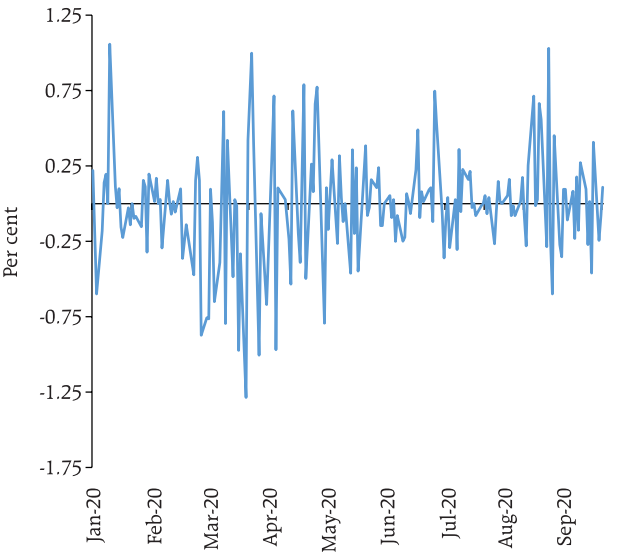
of USD-INR can be an important indicator, along with other indicators, in predicting real economic activity.

Against this backdrop, this article attempts to assess the efficacy of the Reserve Bank's measures in containing exchange rate volatility. The rest of the article is divided into five sections. Section II discusses the impact of COVID-19 pandemic on the INR exchange rate *vis-à-vis* US Dollar. Section III deals with the measures undertaken by the Reserve Bank to curb the INR volatility. Section IV deliberates on efficacy of the forex market intervention measures taken to contain the volatility in terms of actual path treaded by the INR *vis-à-vis* market expectations. Section V dwells upon the cross-country comparison of forex market intervention. Section VI summarises the findings.

Chart 1 : Daily Change in USD-INR



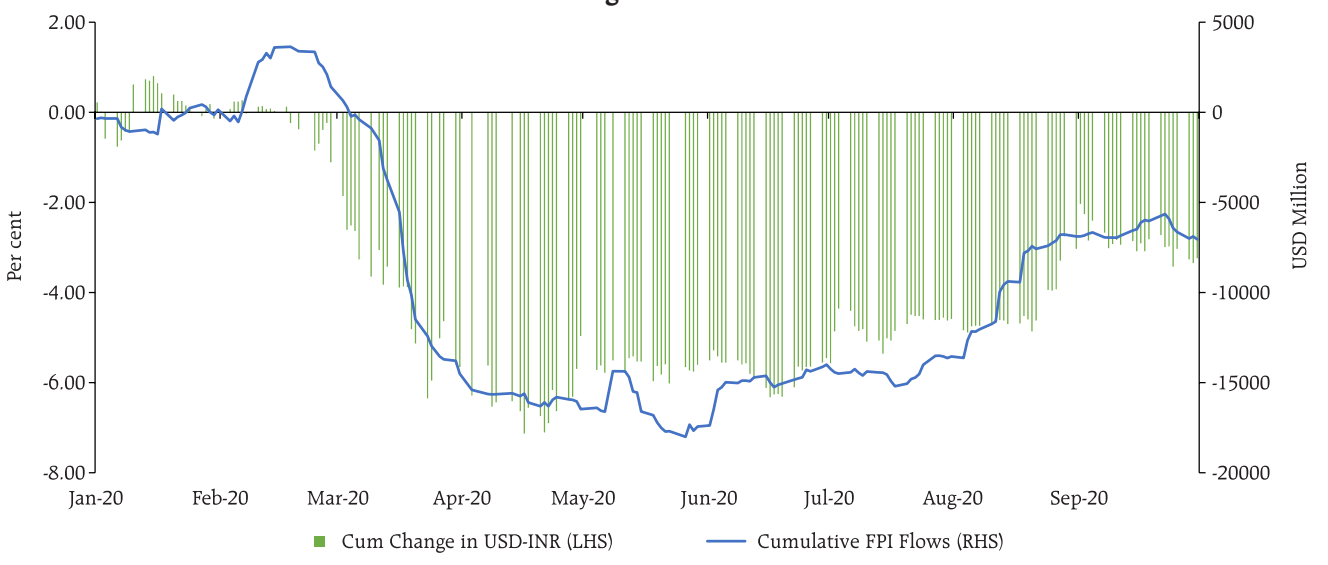
Source: RBI Staff Calculations.

II. Impact of COVID-19 Pandemic on the INR

As in previous episodes of extreme volatility in financial markets, *viz.*, GFC, the Eurozone crisis and the Taper Tantrum event, COVID-19 led to large forex outflows from all emerging markets. India experienced unprecedented Foreign Portfolio Investment (FPI) outflows (debt and equity) of US$15.92 billion in March 2020, after recording cumulative inflows of US$1.42 billion in January 2020 and February 2020, with high volatility in the INR (Chart 1). Daily depreciation of up to 1 per cent was observed on multiple occasions during March, with a fall of 1.29 per cent on March 23, 2020.

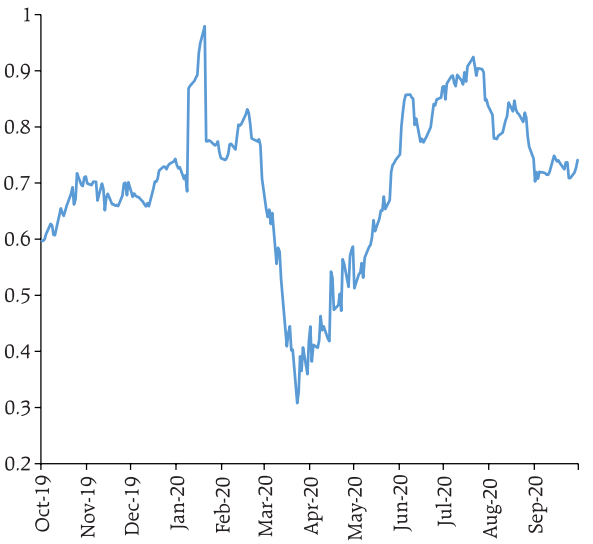
On a year-to-date basis, the INR exhibited a cumulative depreciation of 7.13 per cent, closing at an all-time low of 76.86 on April 16, 2020 (Chart 2).

Chart 2: Cumulative Change in USD-INR *vis-a-vis* FPI Flows



Source: NSDL, RBI Staff Calculations.

Chart 3: USD-INR Carry-to-Volatility Ratio



Source: Bloomberg.

In the pre-COVID period, foreign investors employed carry trade strategies successfully, given the decent interest rate differentials between Emerging Market Economies (EMEs) and advanced economies. The strategy worked well for funding currencies (mainly USD) (in violation of covered interest rate parity), when volatility was low. The carry-to-volatility ratio, which is an *ex-ante* risk adjusted return measure (ratio of interest differential between two currencies to volatility) was hovering around its 1-year average of 0.76 (Chart 3). With the abrupt increase in volatility, the ratio fell quickly, indicating a high probability of unwinding of carry trade strategies after March. The ratio, however, has increased thereafter as implied volatility has reduced. Foreign investors look for opportunities when the ratio is high.

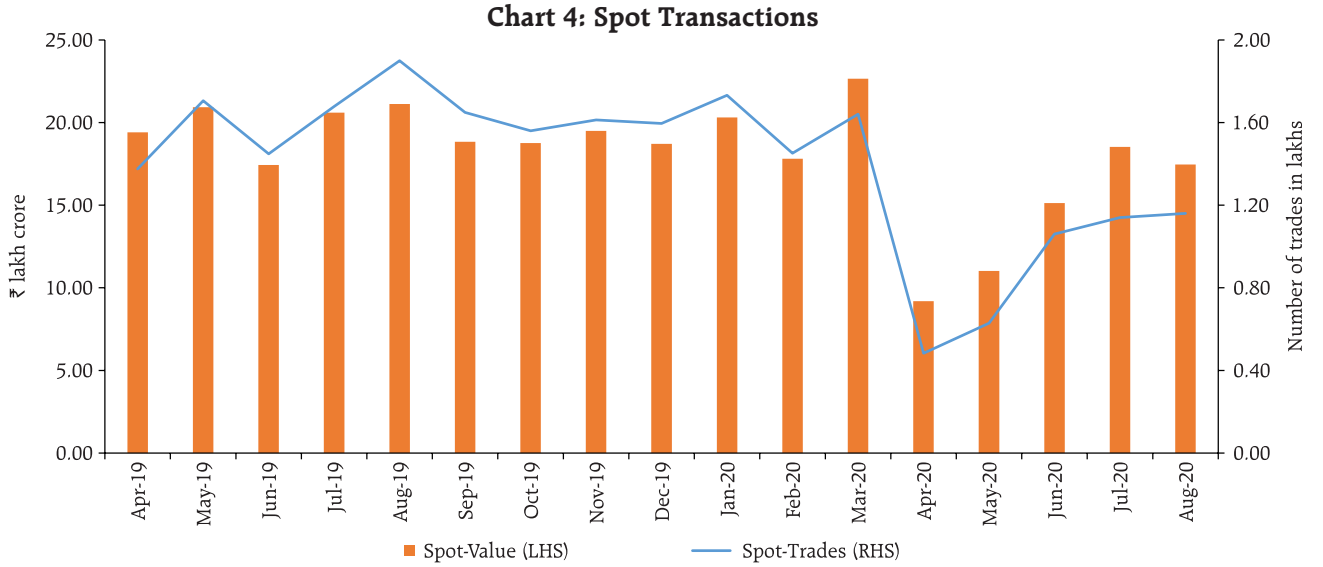
III. Measures Taken by RBI

III.1 Economy-wide Measures

As the pandemic posed a serious threat to financial stability and the real economy, the Reserve Bank's response was '*do whatever is necessary to shield the economy*' (Tobias Adrian, *et al,* 2020). These measures by the Reserve Bank boosted investors' sentiment and helped in assuaging worries of the markets (RBI Monetary Policy Report, 2020). As risk appetite of investors improved, the intensity of FPI outflows reduced considerably in April and May 2020 (net outflows of US$1.96 billion and US$0.97 billion respectively), taking some pressure off the INR.

The Reserve Bank curtailed timings of interbank forex transactions (along with other market segments) on April 3, 2020 in order to minimise the operational and logistic risks resulting from thinning out of market activity. The move resulted in reduction in volume of spot transactions, although they have recovered since then (Chart 4).

Chart 4: Spot Transactions



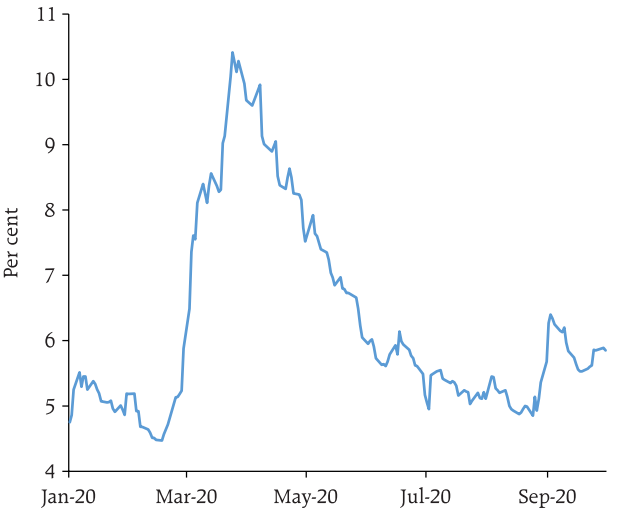
Source: CCIL.

III.2 Specific Measures to Curb Volatility

The Reserve Bank undertook specific measures to curb volatility in the INR. The Reserve Bank intervened by selling USD in the Over-the-Counter (OTC), exchange traded and offshore market segments. Intervention by the Reserve Bank in March 2020 resulted in containment of surging volatility (1 month at-the-money option Implied Volatility) and reduced depreciation pressures on the INR. Subsequently, buy-side intervention was undertaken from April-end onwards on account of sporadic FPI inflows, which further helped reduce volatility to pre-intervention levels (Chart-5).

The Reserve Bank also undertook two USD-INR sell-buy swaps for a tenor of six months each in March 2020 to provide dollar liquidity to the market. The swaps helped to reduce shortage of dollar liquidity faced by market participants towards the end of the financial year.

Chart 5: USD-INR - 1 Month at the Money Implied Volatility

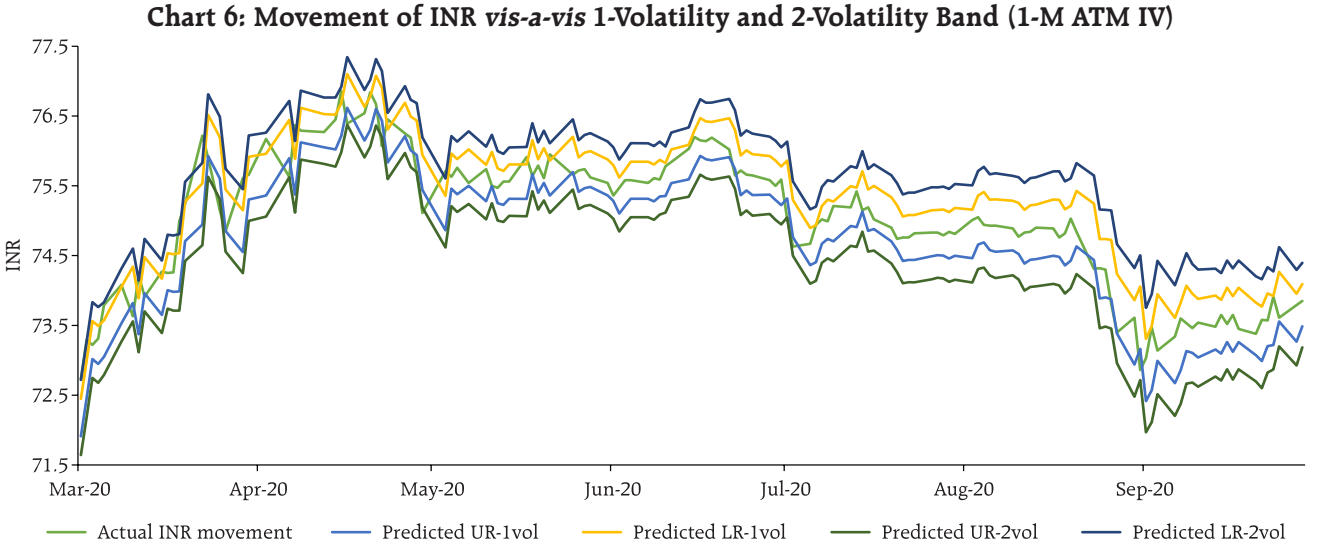


Source: Bloomberg.

IV. Efficacy of Interventions in Forex Market

1-month ATM option implied volatility (IV) of the USD-INR exchange rate started increasing since the beginning of March 2020, reflecting higher uncertainty expected by market participants (Chart 5). In response to the Reserve Bank's interventions on multiple fronts from March 4, 2020, the INR moved in the middle of volatility bands[1] (importantly in the narrower 1-volatility band) during most of the period (March 4-September 30), which implies that realised volatility of the INR was substantially lower than the expectation-based IV (Chart 6).

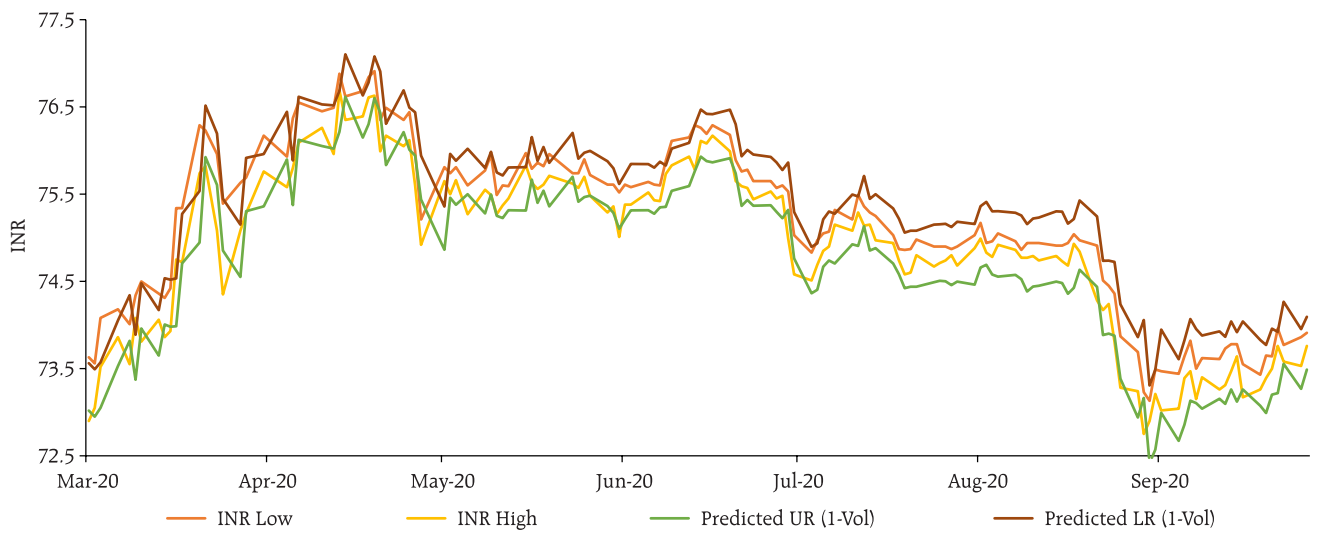
Chart 6: Movement of INR *vis-a-vis* 1-Volatility and 2-Volatility Band (1-M ATM IV)



Source: Bloomberg, RBI Staff Calculations;
Note: Lower absolute value implies higher INR and *vice-versa*.

[1] 1-vol and 2-vol INR bands have been constructed using predicted INR values (upper and lower bound) for next day, on the basis of day's closing INR value (*vis-à-vis* USD) and implied volatility values available in Bloomberg.

Chart 7: Intra-day Movement of INR *vis-a-vis* 1-Volatility band (1-M ATM IV)



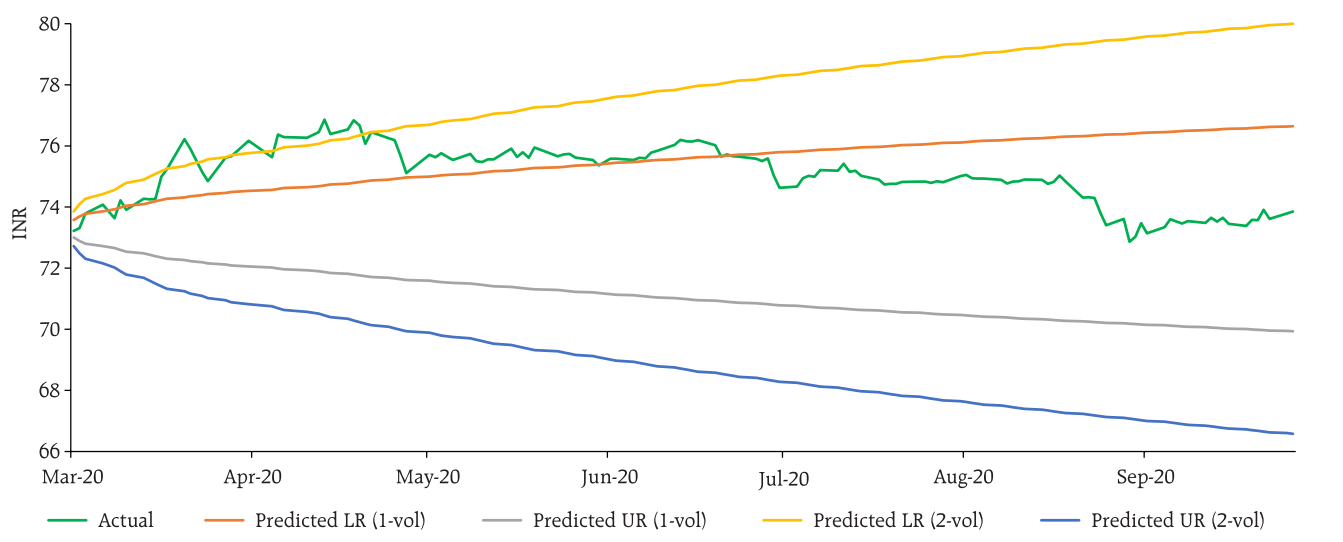
Source: Bloomberg, RBI Staff Calculations;
Note: Lower absolute value implies higher INR and *vice-versa*.

High volatility was also observed in intraday movements of the INR in the months of March and April (Chart 7).

An alternative method to examine the efficacy of interventions is by comparing actual INR movements *vis-à-vis* the historical average of IV. The 2-year average of daily 1-month ATM IV is 6.12 per cent (March 5, 2018- March 3, 2020), which predicts narrower ranges for prospective INR movements.

If the INR band is plotted using historical IV values and the closing INR value of 73.29 on March 3 (just a day before the Reserve Bank started intervention), a rate corridor is arrived at in which the INR is predicted to move, based on a conservative IV value (Chart 8).

Chart 8: Movement of INR *vis-a-vis* 1-Volatility and 2-Volatility Band (2-yr* average daily IV)



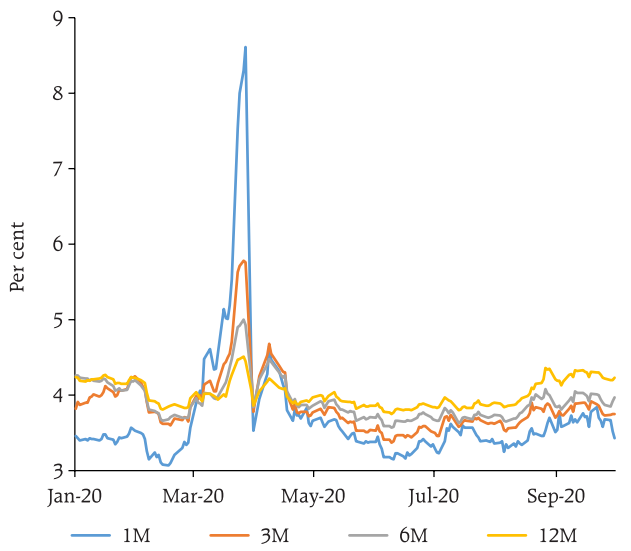
Source: Bloomberg, RBI Staff Calculations *March 05, 2018-March 03, 2020
Note: Lower absolute value implies higher INR and *vice-versa*.

It can be seen that actual INR movement has been below or around the upper bound (lower range) of the band on majority of the days during the period in 2-volatility band.

INR treaded above the lower range (higher absolute values) of the more conservative 1-volatility band in the months of March and April. However, the INR started to stabilise around or below the lower range from May 2020 onwards. The Reserve Bank undertook buy-side intervention towards end-April after sell-side intervention in March, as the direction of flows was mixed in April. Consequently, volatility remained at high levels. In this context, the judicious use of sell-side as well as buy-side interventions helped smooth volatility from May 2020 onwards. Thus, the INR treaded a path based on a conservative 2-year average IV, dispelling fears of large depreciation (as reflected by high IV values March 2020 onwards).

A general hardening of forward premia was witnessed across the tenors towards March-end, with sharp spikes in near-month tenors. Consequently, the Reserve Bank undertook two buy-sell swaps in March end. Forward premia softened after March. (Chart 9).

Chart 9: Forward Premia Curve



Source: Eikon

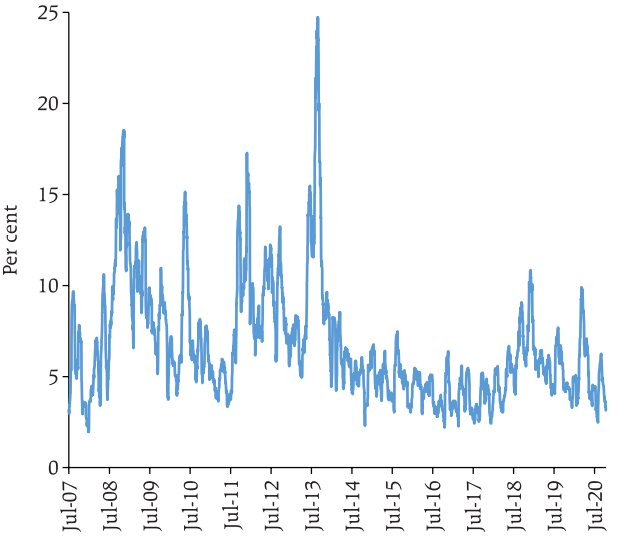
In the past, historical volatility[2] (1-month) of the INR has undergone periodic upsurges during 2008-09, 2011-12, 2013-14 and 2018-19. It reached a peak of 24.73 per cent in September 2013 (Chart 10). In comparison with realised volatility in the pre-COVID periods, a clear ebbing of volatility is evident (Chart 11). Even if only the peak period, *viz.*, March-April 2020 is considered, realised volatility averaged 7.71 per cent, which is also the least among high volatility episodes.

V. Cross-Country Comparison of Intervention

EMEs' currencies were hit hard by the global market sell-off, when COVID-19 broke out exhibiting high levels of volatility as some of them fell to record lows. Consequently, most EME central banks intervened in the forex market (Chart 12).

India's intervention in March 2020 (*i.e.* decline in forex reserves in March over February) as a share of total forex reserves at end-February was 1.43 per cent as against 7.61 per cent for Indonesia and 2.19 per cent for South Korea.

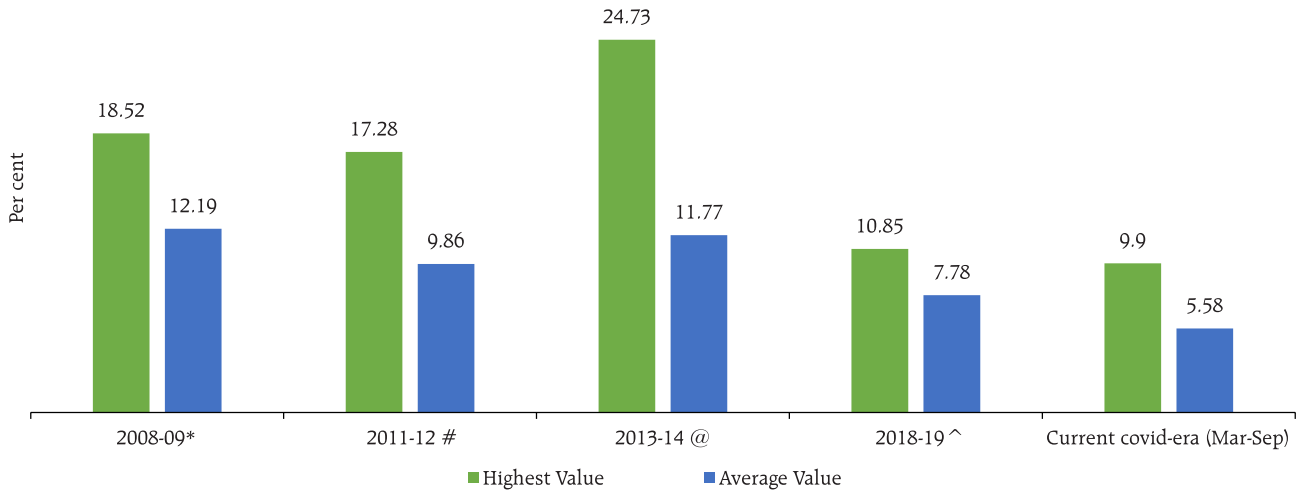
Chart 10: USD-INR Historical Volatility-1 Month



Source: Bloomberg.

[2] Realised volatility is calculated by annualising the standard deviation of periodic logarithmic returns over the historic time horizon (values available in Bloomberg).

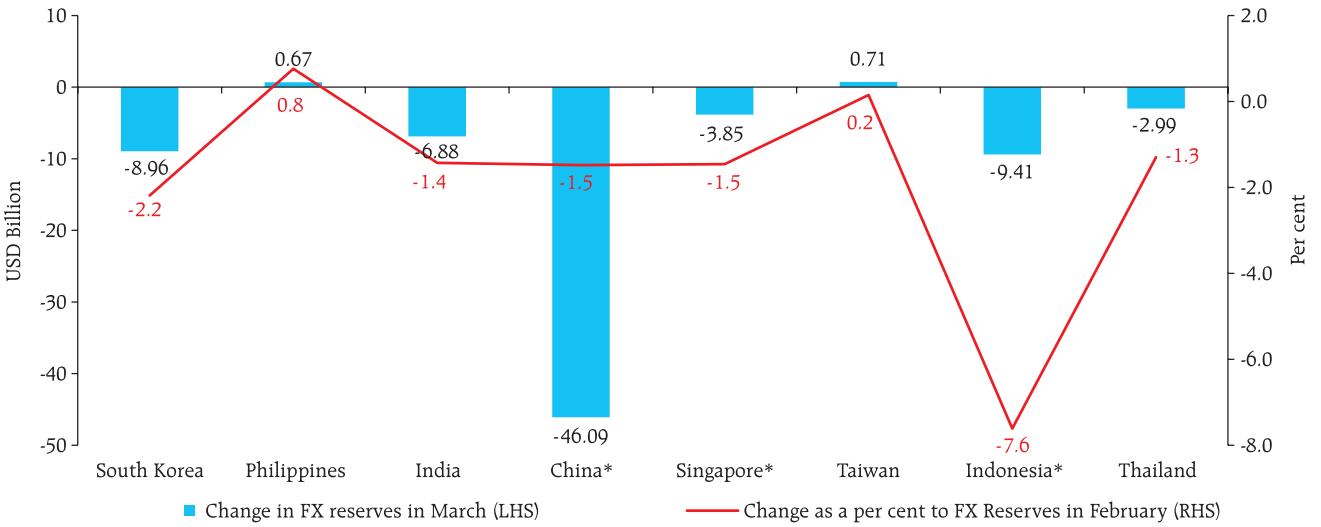
Chart 11: Highest & Average Realised Volatility During Major Crisis Periods



Source: Bloomberg, RBI Staff Calculations
*Sep 08-Jun 09 (GFC) #Aug 11-Aug 12 (Eurozone debt crisis) @ May 13-Jan 14 (Taper tantrum) ^ Sept 18-Jan 19 (Trade war, Major outflows)
"Dates for previous crisis events have been chosen based on their impact on Indian markets/ economic indicators /volatility".

Implied volatilities or risk reversal (RR)[3] - difference between implied volatilities of out-of the money call and put options (25 Delta) on the currency pair – rose in March 2020 for all Asian peer currencies. In the case of the INR, RR came down from a high of 4.14 in March and remained consistently around 1 subsequently, which indicates reduced depreciation expectations on the INR (Chart 13).

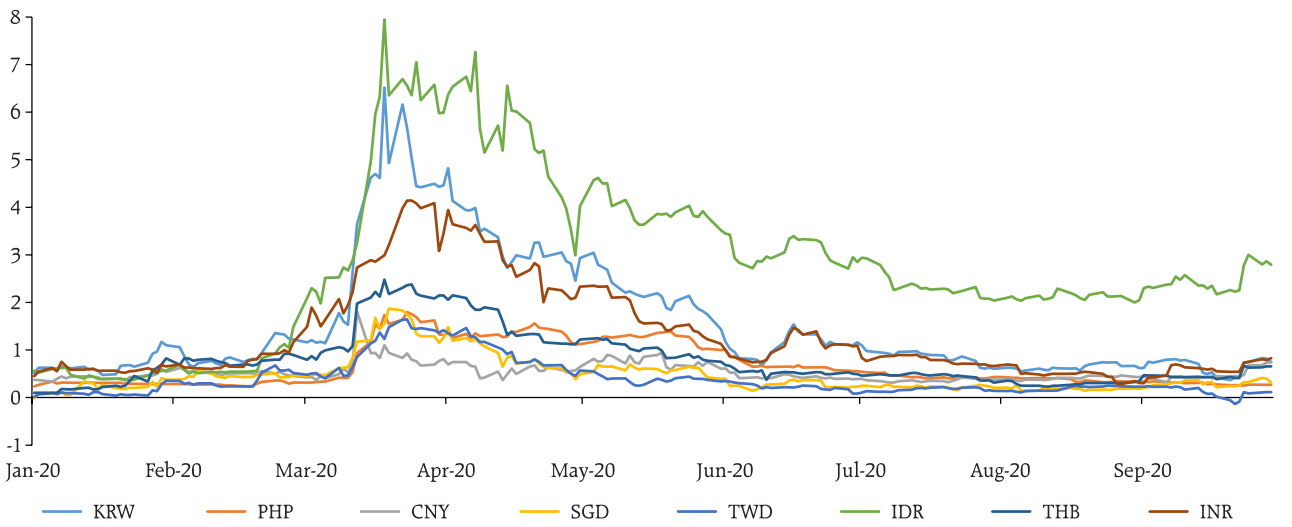
Chart 12: Change in Forex Reserves in March - A Proxy for Intervention



Source: Respective Central Bank Websites,
*Bloomberg

[3] Positive values imply bullish outlook on the USD *vis-à-vis* the other currency in the pair. Further, higher the absolute value, higher the expectations of price movement. In a nutshell, depreciation in all Asian peer currencies *vis-à-vis* the USD was anticipated.

Chart 13: 25 Delta Risk Reversal of Asian Peer Currencies *vis-a-vis* USD



Source: Bloomberg.
Note: (KRW: South Korea, PHP- Philippines, CNY- China, SGD- Singapore, TWD-Taiwan, IDR- Indonesia, THB – Thailand, INR – India).

VI. Conclusion

Forex market interventions, along with other monetary and regulatory measures have helped curb exchange market volatility and mitigated potential threats to financial stability. Volatility, measured by a variety of indicators, normalised quickly after the surge in March and remained lower than in stress episodes in the past. This is also reflected in a cross-country comparison.

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*Services and Infrastructure Outlook Survey: Recent Trends**

The Reserve Bank's quarterly Services and Infrastructure Outlook Survey (SIOS), being conducted since Q1:2014-15, provides the perceptions of the services and infrastructure sector companies about their own performance and prospects in the near term. Its response rate is lower than that of other forward looking surveys of the Reserve Bank, but the aggregate responses on major parameters have broad internal consistency. This article presents details of the survey and the movements in major parameters since its inception. After severe contraction in Q1:2020-21 due to the lockdown in the wake of COVID-19 pandemic, business sentiments have moved to recovery path but are yet to reach the pre-pandemic levels.

Introduction

Business tendency surveys seek opinion of business managers about the prevailing business conditions and their plans and expectations for the near future. These surveys, which are also christened as business outlook/expectation/opinion/climate surveys, aim to provide lead information on macroeconomic and sectoral outlook to economic policymakers, analysts and business planners. The information set from such surveys are also of value in anticipating cyclical turning points in the economy.

Surveys of business conditions often go beyond measurable conventional statistics and, *inter alia*, collect perceptions on economic conditions (*e.g.*, overall business situation, investment climate, production constraints). Organised businesses usually function in several economic sectors (*viz.*, industry, infrastructure, retail trade, services) having different focus areas and parameters. Sector-specific business surveys are, therefore, often relied upon, where relevant questions are designed for a relatively homogeneous group of business entities.

The rest of this article is structured as follows. Section II presents the cross-country experience on business outlook surveys relating to services sector. An overview of the quarterly Services and Infrastructure Outlook Survey conducted by the Reserve Bank is given in Section III and its findings are summarised in Section IV. Section V concludes with some key takeaways.

II. Cross-Country Practices

Business tendency surveys are conducted regularly in developed economies as well as in many emerging market economies and have proved to be an effective means of generating timely information on short-term economic developments. The European Commission co-ordinates the harmonised monthly surveys for different sectors (*i.e.*, industry, services, retail trade and construction) in the European economies. In addition to the common questions, the national authorities often add country-specific questions in their questionnaires.

A summary of major business surveys, conducted by major central banks covering services sector firms is presented in Annex Table 1.

III. RBI's Services and Infrastructure Outlook Survey

The Reserve Bank's Internal Working Group on Surveys (2009) had noted that gauging the developments in services sector is vital for understanding the effectiveness of overall policies as services have the largest share in India's national income and have been recording high employment growth, especially in the retail sector. The Group suggested that a business outlook survey for services sector may be conducted with a focus on trading and other sub-components of services like, IT services, hospitality services, health care services, *etc.*

* Prepared by Shubhangi Latey and Supriya Majumdar of the Division of Enterprise Surveys, Department of Statistics and Information Management. The views expressed in this article are those of the authors and do not necessarily represent the views of the Reserve Bank of India.

Accordingly, after some pilot work, the SIOS is being conducted on quarterly basis since Q1:2014-15, with some refinement in the survey questionnaire over the period under the guidance of the Bank's Technical Advisory Committee on Surveys (TACS) where external experts participate. The survey provides insights on the prevailing business conditions in the services and infrastructure sector and also the expectations in the near term.

Target Group and Responses

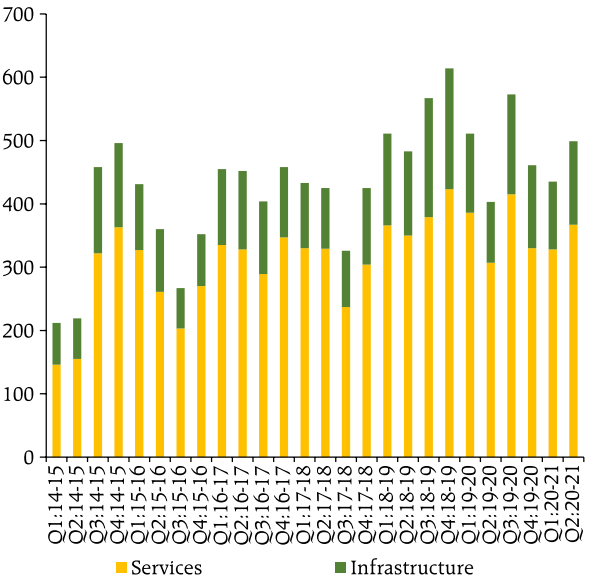
The survey questionnaire is canvassed among a panel of services and infrastructure sector companies. The sample frame is selected so as to get a reasonable representation of size and industry. The frame is updated on annual basis and kept fixed for the survey rounds conducted during a year. The frame has been expanded gradually from nearly 800 companies in the initial rounds to around 3,500 companies. Participation in the survey is voluntary.

It is recognised that the number of services sector companies is very large, where small firms dominate in terms of number and their churn rate is high. Accordingly, the response rate is generally lower than that of the other business surveys of the Reserve Bank {*e.g.*, Industrial Outlook Survey (IOS), Order Book, Inventory and Capacity Utilisation Survey (OBICUS), Bank Lending Survey (BLS)}. The actual number of responses for all the survey rounds since inception is presented in Chart 1.

The Survey Questionnaire

Senior management officials or heads of finance in services and infrastructure companies are solicited to provide their perception on select business parameters along with some basic information on their business profile in a structured questionnaire.[1] It assesses

Chart 1: No. of Respondents for SIOS



the business situation for the prevailing quarter and expectations for the ensuing quarter on overall business situation, demand indicators, employment conditions, price situation, financial situation and profit margin, which provide useful forward looking inputs for policy analysis and research.

The survey responses are collected on a three-point scale (*viz.*, increase, decrease and no change). Feedback about the factors influencing the business favourably and adversely is collected in an additional block of the questionnaire. Respondents can also provide their sentiments on different macroeconomic parameters (*e.g.*, annual inflation rate, annual growth in overall economic output, investment in the economy, Rupee-US dollar exchange rate and business constraints) as well as any other comments/suggestions on sector-specific issues in the survey questionnaire.

Methodology: Analysis of Survey Data

Each round of the survey has three shares of respondents (*viz.*, percentage of respondents reporting increase, decrease and no change) for each business parameter for both assessment and expectation quarters. These are summarised into a

[1] SIOS questionnaire is available at the RBI website https://www.rbi.org.in/Scripts/BS_ViewForms.aspx?FCId=40), and is placed under the head 'Forms' (see 'More Links' at the bottom of the RBI Homepage) and the sub-head 'Survey'.

single comprehensive number for each parameter/ period in terms of 'Net Responses (NR)' or 'Diffusion Indices (DI)'.[2] NR can range from -100 to +100 with the 'zero' value separating optimism/expansion from pessimism/contraction. On the other hand, DI ranges from 0 to 100 with 50 as the mid-point (OECD, 2003). The two summary indices move in tandem over time as the difference is essentially that of scale. In the subsequent sections, NR is used to analyse the SIOS results.

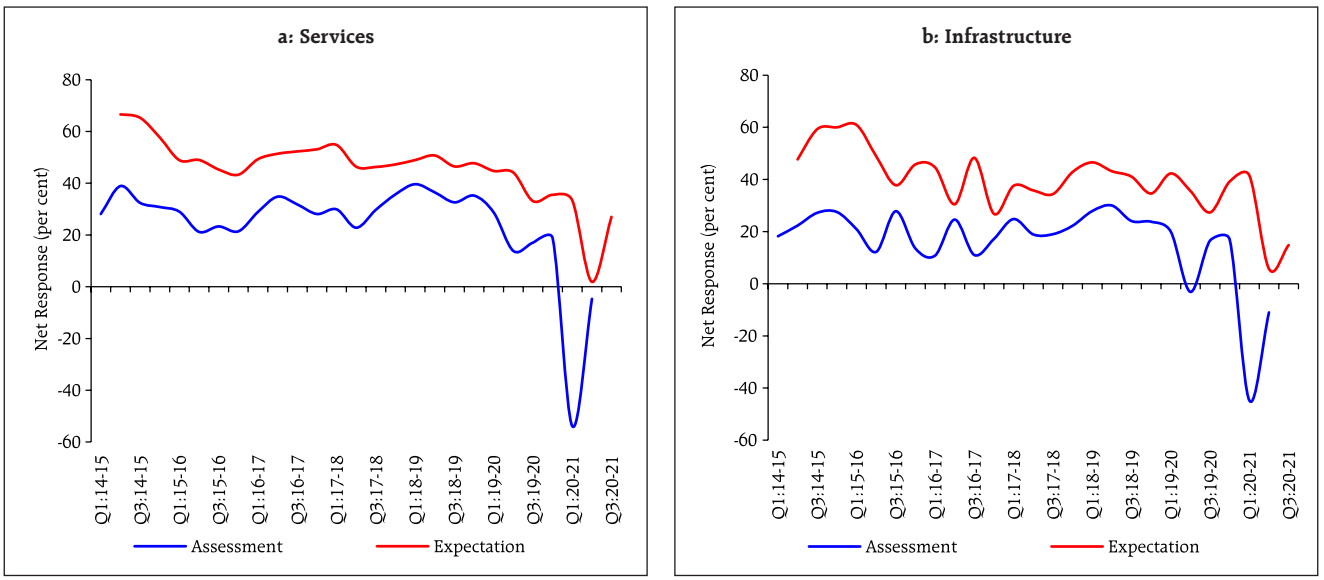
IV. Survey Findings

The movements in the SIOS parameters from the first round (April-June 2014) up to the July-September 2020 round of the survey are set out below.[3]

Overall Business Situation

The overall sentiment of services and infrastructure companies remained in optimistic zone despite gradual moderation during the six year period ending Q4:2019-20 before the severe impact of COVID-19 pandemic. The situation recorded turnaround in the latest quarter for the services sector though the overall perception of respondents was that the infrastructure companies would remain in a contraction zone (Chart 2). As most of the responses for January-March 2020 survey round were received by early-March 2020, it did not foretell the collapse of activities in the subsequent quarter. This is true for all major parameters of the survey.

Chart 2: Overall Business Situation



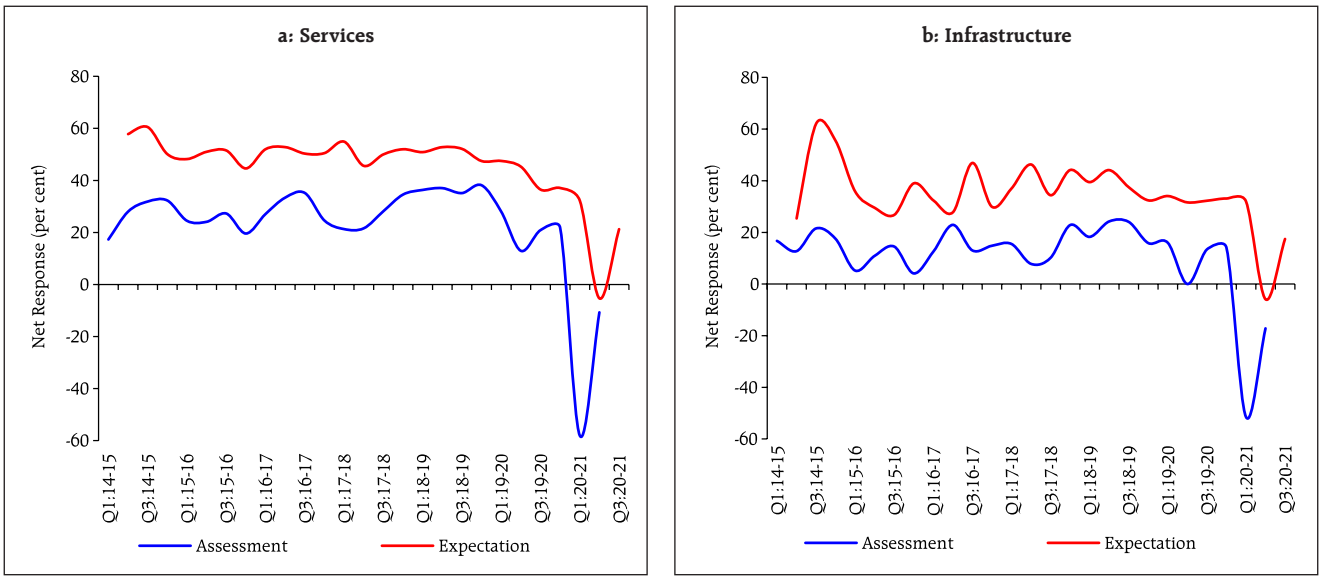
[2] For computing Net Responses (NR), the percentage of respondents reporting a decrease is subtracted from the percentage reporting an increase; while, Diffusion Index (DI) is defined as the fraction of favourable (Increase) answers plus half of the fraction of no change answers. Let A, B and C be respectively the fraction of increase, no change and decrease replies in the total, then

NR = 100 (A – C), while

DI = 100 (A + B/2). It can be shown algebraically that NR = 2(DI -50) or DI = (100 + NR)/ 2.

[3] The survey results represent the respondents' collective views. Detailed SIOS data for the 27th survey round (October-December 2020) onwards will be released on the RBI website on the lines of other monetary policy surveys {e.g., Industrial Outlook Survey (IOS), Order Book, Inventory and Capacity Utilisation Survey (OBICUS)} after the resolution of the Monetary Policy Committee (MPC) is placed in public domain.

Chart 3: Turnover



It is also interesting to note that assessments for all quarters are lower than the expectations expressed in the previous quarter. This is true for most of the other parameters too. A similar phenomenon is observed in the Bank's quarterly IOS for the manufacturing sector and it indicates optimism bias in business expectations (RBI, 2020).

Turnover/Sales

This question seeks feedback on the gross revenue generated by companies through selling of goods or providing services.[4] The sentiments on turnover show optimism till the end of FY 2019-20 but a dip during Q1:2020-21 as in the case of overall business situation due to the pandemic (Chart 3). The sentiments improved in the subsequent quarter, though the assessment remained in the contraction zone. The respondents expect further improvement in the ensuing quarter (*i.e.*, Q3:2020-21).

[4] Gross sales in the case of trading companies and for companies engaged in hotel/restaurant business, is the total income generated from lodging, food & other services, *etc.*

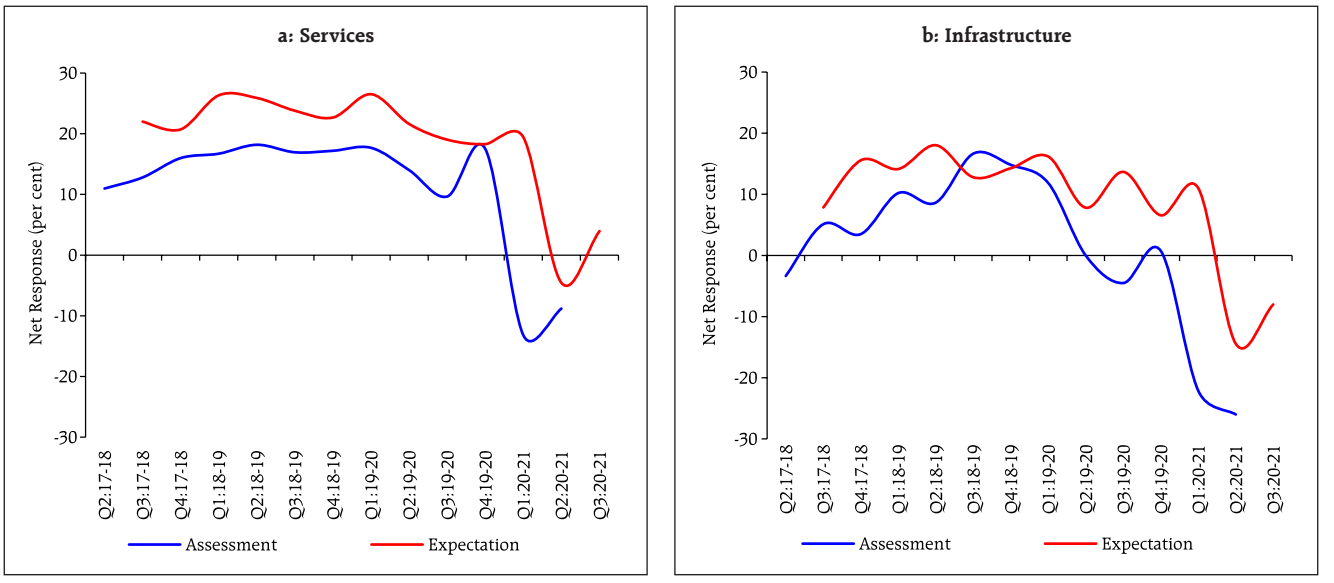
Full-time Employees

Corporate perspective on full-time employees (*e.g.*, whether they are going to increase the regular workforce, cut jobs or retain their strength of full-time employees) are being collected since the 14th round (*i.e.*, Q2:2017-18) of the survey. While the sentiments for the services sector were in an expansion zone before the outbreak of the pandemic, the infrastructure companies were witnesssing a decline in full-time employees since Q2:2018-19 (Chart 4). The latest round of the survey shows that the sentiments are yet to return to the pre-pandemic level.

Part-time Employees

Due to quicker changes in volume of activities, firms in services and infrastructure sector often use part-time/ contract employees more flexibly than manufacturing companies to cater to the changes in the demand conditions. On net basis, the respondents were positive on engagement of part-time employees

Chart 4: Full-time Employees



till Q2:2019-20, especially in the services sector, but the sentiments turned adverse since Q3:2019-20 (Chart 5). The latest round of the survey shows some improvement though the sentiments still remain in a negative zone.

Inventories

The question on inventories (goods/materials that a business holds for the ultimate purpose of resale or use to render services) was introduced in the survey questionnaire in Q2:2017-18. The sentiments on

Chart 5: Part-time Employees

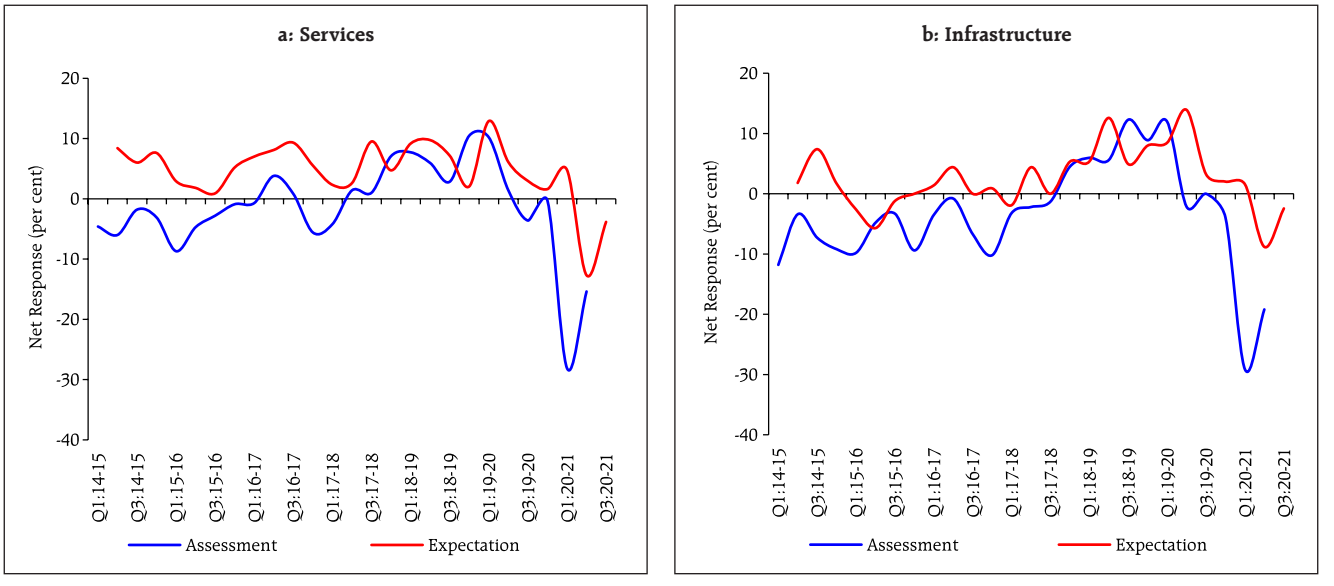
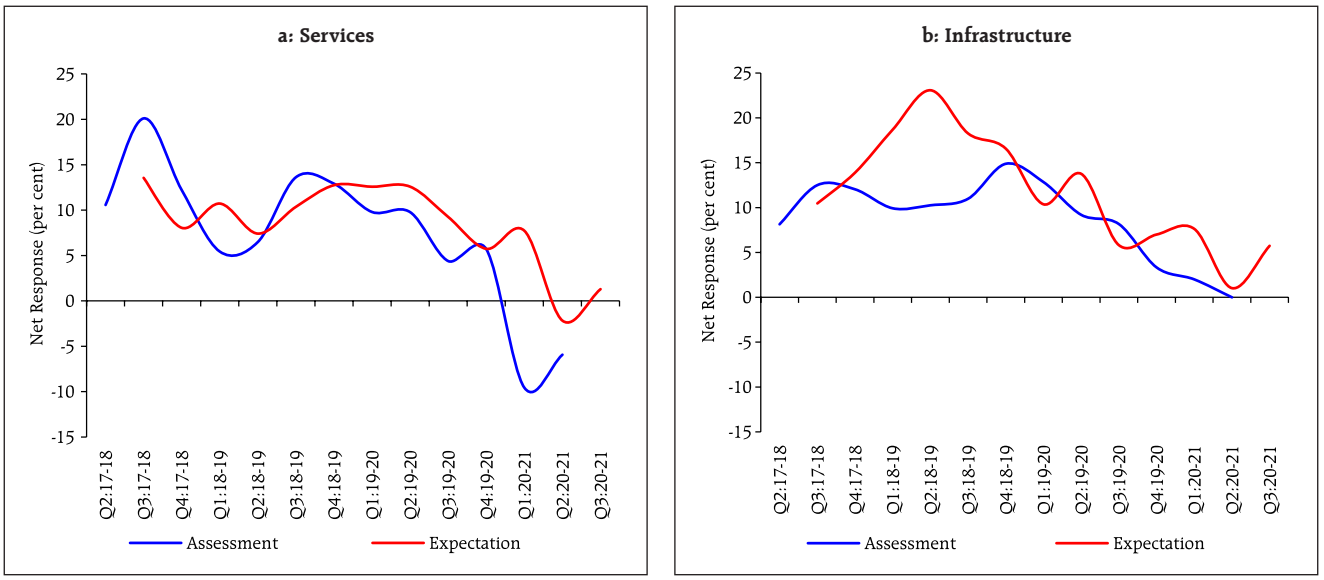


Chart 6: Inventories



inventories for the services sector were in expansion zone but started moderating since Q4:2018-19 and collapsed into contraction zone in Q1:2020-21 due to pandemic situation (Chart 6). The sentiments for the infrastructure sector, however, continued in the expansion zone *albeit* with lower optimism.

Availability of Finance and Cost of Finance

Corporate views on availability and cost of finance (CoF) for supporting their business operations is an important input for financial planning.[5] Since increase in CoF is adverse for business (unlike for majority of business parameters where increase indicates positive sentiments), NR for CoF represents the proportion of respondents expecting decline (D) in CoF less the proportion that expect its increase (I).

NR on CoF declined continuously from Q3:2017-18 for one year before the perceptions started to improve in Q4:2018-19, though it remained in the negative terrain (Chart 7). The availability of finance (AoF) for services sector companies (from both internal and external sources) was in optimistic zone till the outbreak of the pandemic, although infrastructure companies were reporting pessimistic sentiments much earlier (since Q3:2017-18).

Salary/Wages

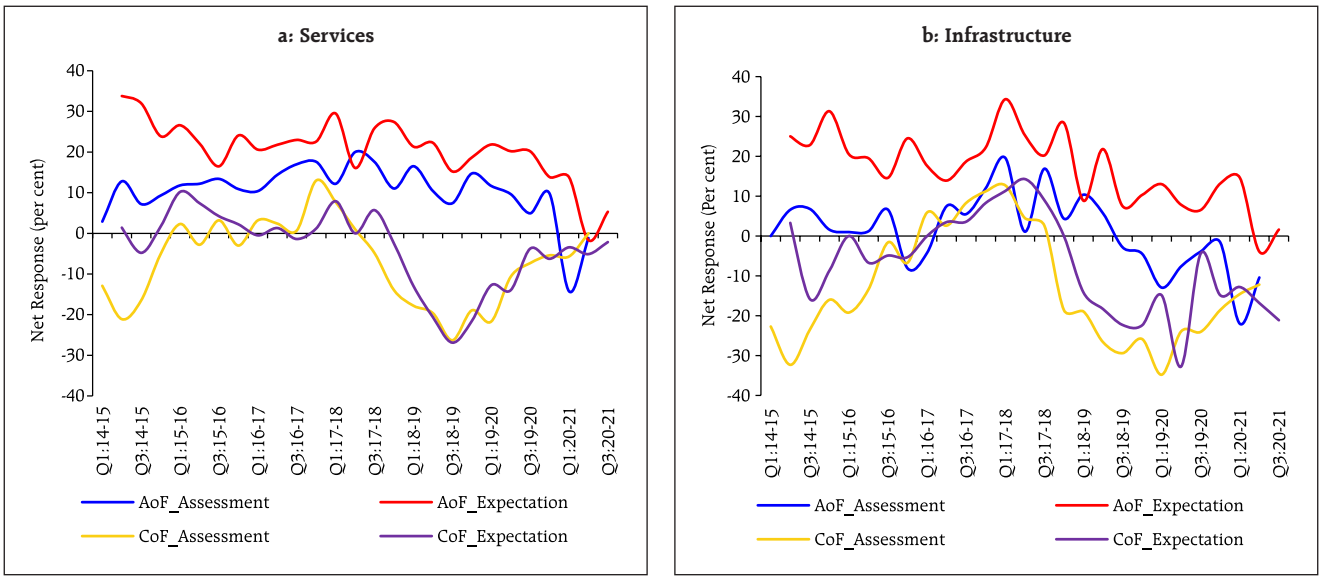
This parameter was included in the survey questionnaire during Q2:2017-18 round to capture sentiments on the cost borne by the companies towards staff salary. Here too, NR is computed as D-I. Both services and infrastructure companies felt continued salary pressures till the outbreak of the pandemic. Subsequently, salary outgo was assessed to have declined as corporates perceived lower engagement of employees over one quarter, before the salary pressure started to increase again (Chart 8).

Selling Price and Cost of Inputs

The selling price (SP) parameter, which was added to the survey questionnaire during Q2:2017-18, captures the price of the services / goods

[5] Cost of finance includes interest paid to banks/financial institutions/ business partners, *etc.*, and does not include funds that are ploughed back to business from surplus profit.

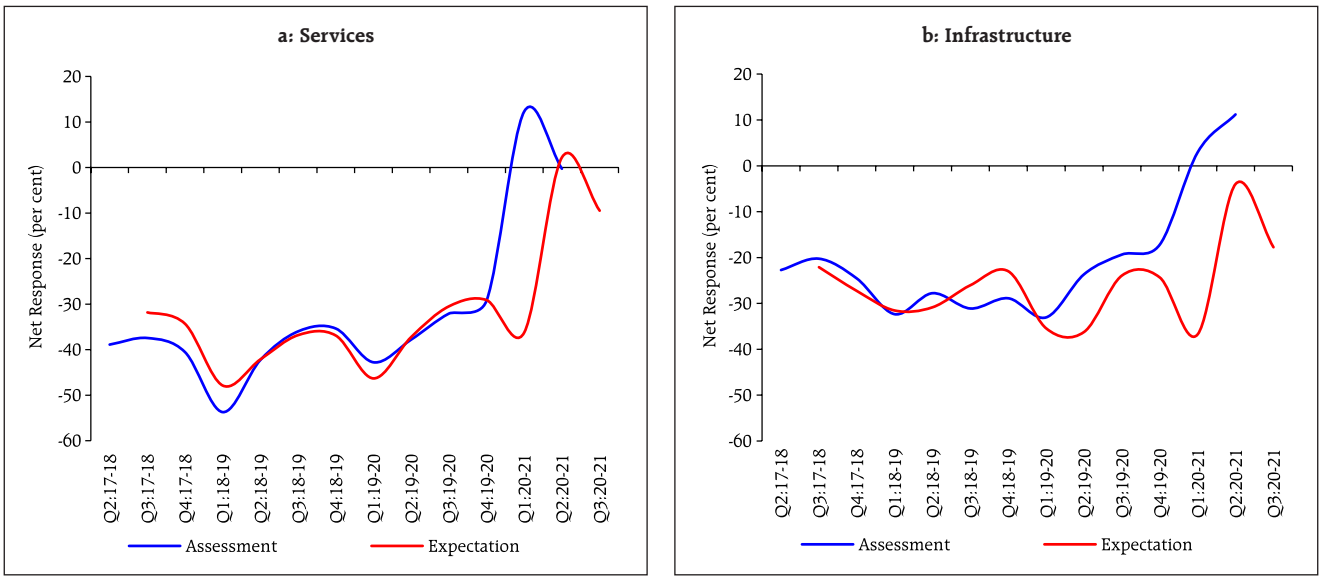
Chart 7: Availability of Finance and Cost of Finance



Note: NR for Cost of Finance (in per cent) is computed as 'decrease (D) - increase (I)'.

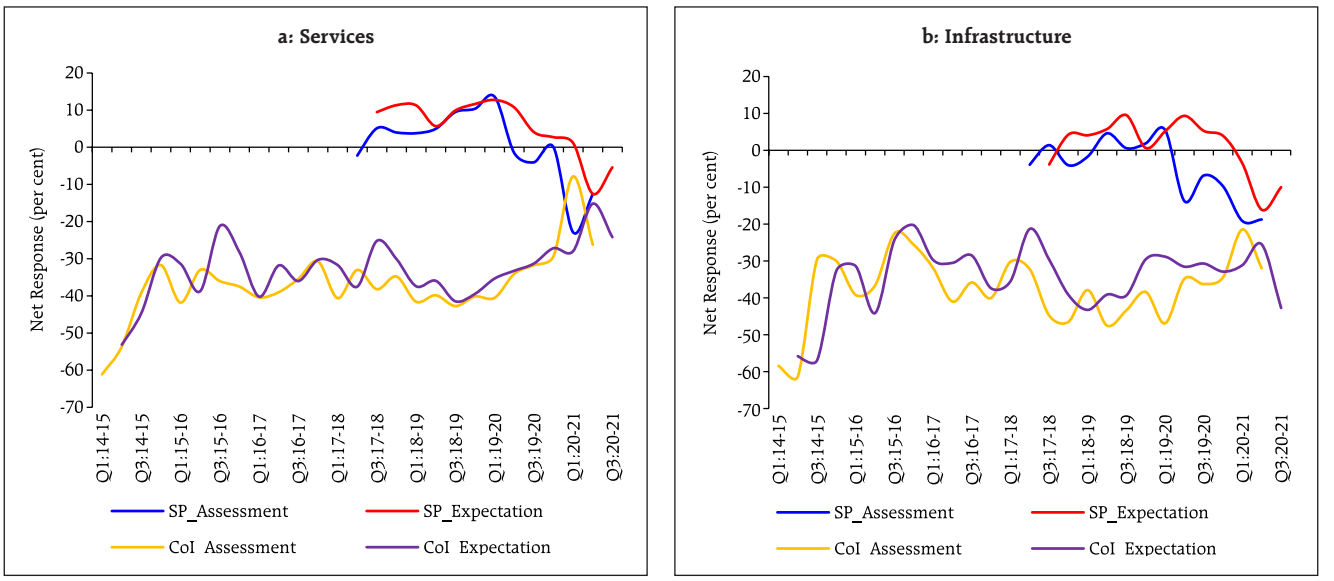
sold. Perception on the cost of inputs (CoI), which is being collected from the first round of the survey, covers the prices paid by the company for carrying out business. Respondents reported large input cost pressures (with maximum NR scale among all parameters) and low pricing power till 2019-20, which reflected the constraints in raising selling prices over a prolonged period (Chart 9). Sentiments on SP, which generally share an inverse relationship with CoI on a net basis, showed a declining trend

Chart 8: Salary/ Wages



Note: NR for Salary/ Wages is computed (in per cent) as 'decrease (D) - increase (I)'

Chart 9: Selling Price and Cost of Inputs



Note: NR for Cost of Inputs is computed (in per cent) as 'decrease (D) - increase (I)'

with some moderation in input cost pressure from 2019-20.

Technical / Service Capacity

The maximum capacity to produce goods or services by companies is assessed through corporate feedback on technical/service capacity. Most of the companies remained positive about their capacity to meet their business requirements throughout the survey period before the outbreak of the pandemic (Chart 10). Unlike many other parameters, the realised assessment of companies was not systematically below their anticipation in the previous quarter and business capacity was generally seen as sufficient in the short run.

Chart 10: Technical/ Service Capacity

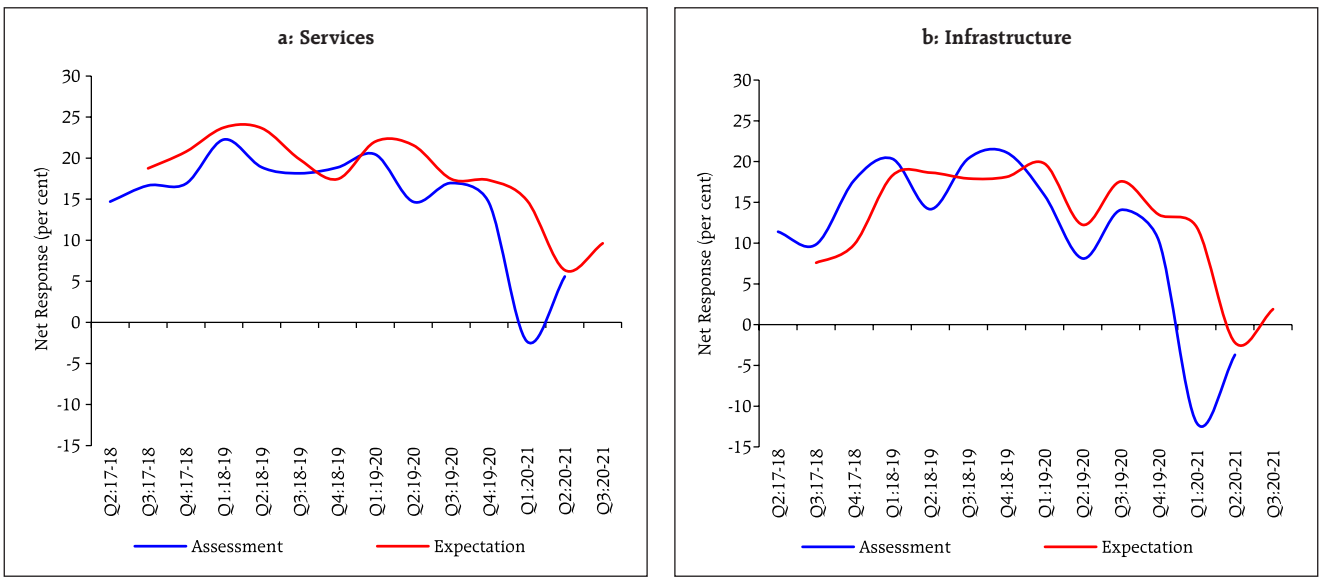
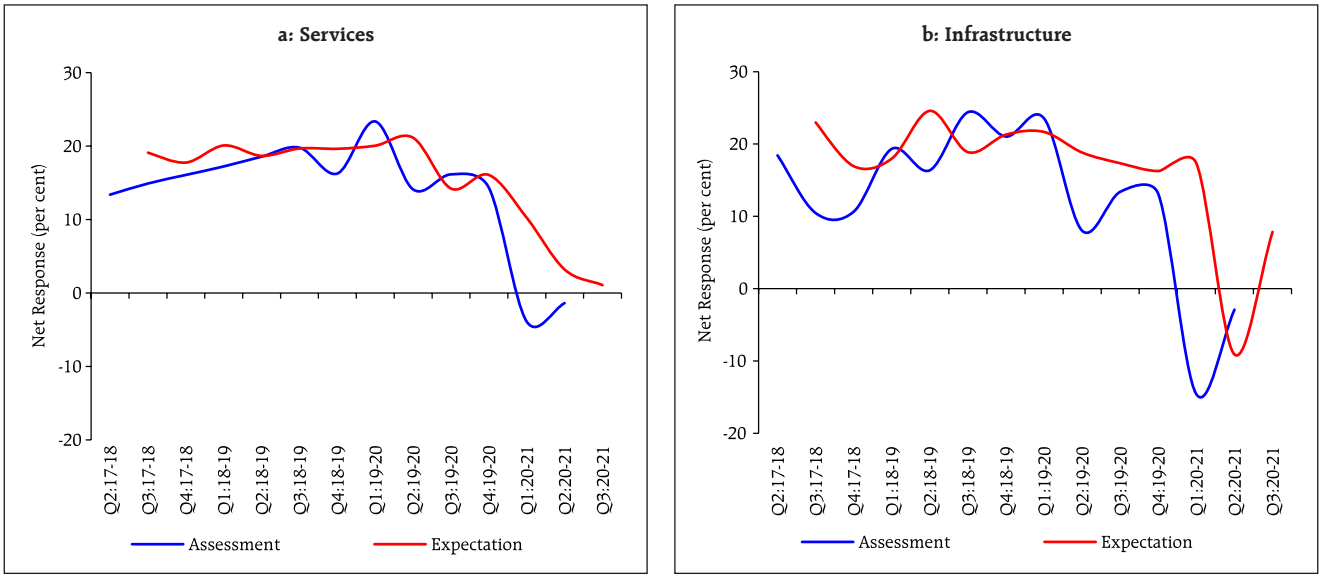


Chart 11: Physical Investment



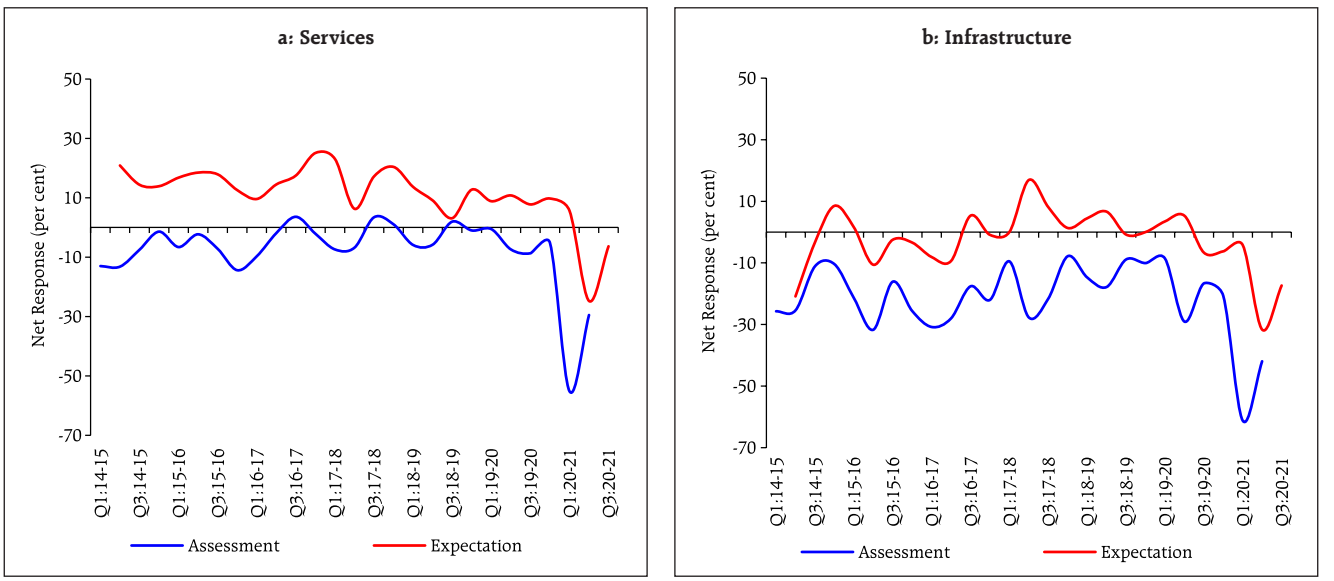
Physical Investment

Infrastructure sector companies, hotels, hospitals, education institutes, software firms and other service sector companies make physical investment in acquiring building, equipments and other fixed assets. The sentiments on physical investment were largely akin to those for technical and service capacity, which reflected consistent internal planning and confidence among the respondent firms (Charts 10 and 11).

Profit Margin

Up to 2019-20, on a net basis, service companies were generally optimistic about profit margins for the next quarter though the subsequent assessment were not so positive; infrastructure companies expressed lesser optimism than service sector companies with expectations hovering around zero (Chart 12). During 2020-21, both groups of companies expressed negative outlook on profit margins, though there was

Chart 12: Profit Margin



decline in pessimistic sentiments during the third quarter of the year from the sharp drop observed in first quarter.

V. Conclusion

SIOS provides business sentiments of the services and infrastructure sectors ahead of corporate results and official statistics. Its response rate is lower than that of other forward looking surveys of the Reserve Bank for the manufacturing sector and banks but the responses on major parameters have broad internal consistency. Similar to manufacturing companies, the outcome assessment of companies in the services and infrastructure sectors has been lower than their initial expectations.

Most of the business parameters in the services and infrastructure sector were severely hit in Q1:2020-21 due to the lockdown and economic slowdown related to the pandemic. Business sentiments have moved to a recovery path in the subsequent survey rounds but are yet to reach the pre-pandemic levels across all parameters.

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Annex Table 1: Surveys on Business Condition in Services: Country Practices *(Contd.)*

Institution	Frequency	Participating firms	Sample size	Coverage of items
Banque de France	Monthly	Manufacturing, services, construction and retail trade	10000	Assessment of economic conditions in the month preceding the publication, together with a GDP growth forecast for the quarter is collected.
Federal Reserve Bank of Dallas	Monthly	Service firms	230	Changes in business conditions for major indicators (*e.g.*, revenue, employment, prices and company outlook) and perception on broader economic conditions (general business activity). Answers cover changes over the previous month and expectations for activity six months into the future.
Federal Reserve Bank of Richmond	Monthly	Retailers and service firms	Around 100	Retailers provide information on sales revenues, big-ticket sales, inventories, and shopper traffic, whereas services firms report on their revenues. Both sets of respondents also provide information on employment and wages, prices, and expectations for customer demand during the next six months.
Bank of Japan	Quarterly	Firms	10000	Business trends of enterprises, overall corporate activity by combining with a judgment survey, which covers the responding enterprises' views on the current state of and outlook on business conditions and economic developments, and a quantitative survey covering the actual results and forecasts for the responding enterprises' business plans, including figures for sales, profits, and fixed investment.
Bank of Italy	Annual	Industrial and service firms	5000	Employment, investment (both actual and planned), turnover, capacity utilisation, debt and trade receivables. It also collects information on other economic questions, which are of particular interest for economic research and vary from year to year (*e.g.*, corporate strategies and governance, firm size, physical, human and organisational capital, and electric power).

Annex Table 1: Surveys on Business Condition in Services: Country Practices *(Concld.)*

Institution	Frequency	Participating firms	Sample size	Coverage of items
Bank of England	Quarterly	Firms	700	Agents' quantitative assessments of business conditions (on a scale of -5 to +5), reflecting discussions with businesses from all economic sectors. The scores indicate how different aspects of the economy are behaving.
European Commission	Quarterly/ Monthly (in most cases monthly surveys include quarterly surveys)	Industry, services, retail trade and building through common or separate schedules, depending on the economy	Different for the economies covered	Harmonised surveys for different sectors in 33 European economies. Quarterly questions on 1) main factors are currently limiting your business and 2) could you increase your volume of activity with your present resources If the demand expanded? If yes, by how much (per cent)? Monthly questions on developments in business situation, demand (turnover) and employment during the last three months and expectations on demand (turnover), employment and prices over the next three months. Economies often put additional questions based on their other requirements.

Source: Websites of central banks (details in reference list).

*Bank Lending Survey- Recent Trends**

Initiated in 2017 by the Reserve Bank, the Bank Lending Survey in India provides perceptions of banks on loan demand and loan terms and their outlook in near term across major sectors. The details of the survey and its summary results since the first round (Q2:2017-18) are presented in this article. A broad corroboration is observed in the borrowers' perceptions and lenders' sentiments on the manufacturing sector. Bankers' sentiments on lending conditions have consistently improved after the adverse situation witnessed during April-June 2020 due to the COVID-19 pandemic.

Introduction

In a bank dominated economy like India, credit is an essential lubricant to the engine of economic growth and its prognosis may be a useful input in policy formulation. Information on credit is often supplemented with the bankers' perceptions about its demand and financing conditions, which are collected through the dedicated Bank Lending Survey (BLS), also known internationally as senior loan officers' survey or credit condition survey.

Lending choices of banks depend on various factors like macroeconomic outlook, liquidity conditions, borrowers' creditworthiness, uncertainty associated with the concerned sector, expected return including risk premium, portfolio mix and risk management abilities, among others. In this context, BLS provides lender's qualitative perspective on credit market conditions, especially the impact of changing economic or financial conditions on loan demand and loan terms of banks for different economic sectors.

Following the recommendations of the Internal Working Group on Surveys (2009), the Reserve Bank launched the Credit Conditions Survey (CrCS) in 2010. Its questionnaire underwent few revisions based on users' requirements as well as feedback from technical experts and responding banks, before it was rechristened as Bank Lending Survey (BLS) in 2017. The present article lays out broad contours of its methodology, trends in its results and compares it with official statistics and other surveys.

The remainder of the article is structured in six sections. Section II presents the cross-country practices on BLS. Section III gives an overview of the methodology of quarterly BLS conducted by the Reserve Bank; Section IV highlights the results of survey and Section V discusses its relationship with other select economic series. Section VI concludes.

II. Cross-Country Practices

Bank lending surveys are conducted regularly by central banks in major developed economies (*e.g.*, the USA, the UK, Japan, Canada, New Zealand and the euro area countries) and some other developing and emerging market economies such as Jamaica, Nigeria and Thailand, which generally release their aggregate results in public domain. The European Investment Bank (EIB) manages the half-yearly BLS to monitor banking sector trends and challenges in the Central, Eastern and South-Eastern Europe (CESEE) region.

BLS is conducted among banks and often also covers other lending institutions and respondents are given time upto a month to provide their feedback. Its respondents are usually senior loan officers / heads of credit department and other senior officers in comparable positions, who give their qualitative assessment on prevailing credit market situation and their perceptions and intentions for the immediate future, through structured questionnaire on either 3 or 5-point scale. Many central banks conduct these surveys on a quarterly basis while some (*e.g.*, Reserve Bank of New Zealand) approach lenders every six months.

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The survey questions generally pertain to loan demand, loan standards and terms/conditions and factors impacting loans to different sectors (*e.g.*, businesses, households, non-financial corporations). They are backward looking (*e.g.* developments during past three months) and/or forward looking (*e.g.*, expected changes in next three months). Some central banks surveys (*e.g.*, Bank of Japan and European Central Bank (ECB)) specifically request respondents to ignore usual seasonal variations while expressing their opinion about demand for loan. Responses are generally aggregated in the form of a single statistic, namely, net percentage balance or diffusion index – both are computed for the ECB survey (Table 1).

The analysis on ECB's BLS data suggest that since the results were consistent with other statistics, the survey could add to policymakers' understanding of economic and financial trends (Berg *et al.*, 2005). The survey provides useful information on Gross Domestic Product (GDP) projection and survey results on specific sectors are relevant for predicting real activity in those sectors (Cunningham, 2006).

Apart from analysing responses to the standard BLS questionnaire another study evaluated the ad hoc questions introduced to gauge effectiveness of the ECB's standard and non-standard measures during the financial crisis. It was found that the survey was useful in understanding granular nuances about whether banks had access to sufficient funds in the wholesale and retail markets; impact of the sovereign debt tensions on bank funding and bank lending; and how the ECB's negative deposit facility rate affected banks' net interest income and bank lending (Köhler-Ulbrich *et al.*, 2016). Using survey results in Global Vector Autoregressive (GVAR) framework, a study found that expansionary monetary policies in general resulted in lower credit standards, which in turn reinforced the thrust of monetary policy. However, the expansionary impact was muted at the time of announcements about unconventional monetary policies, likely owing to the signaling effect read as a downgrading of underlying economic prospects (Filardo and Siklos, 2020).

Table 1: Select Central Banks Experience on Bank Lending or Credit Conditions Survey

Central Bank and Survey Name	Periodicity	Current Sample	Compilation and Data Collected
The US Federal Reserve *Senior Loan Officer Opinion Survey on Bank Lending Practices*	Quarterly (since 1964)	• Large domestic commercial banks • Large U.S branches/ agencies of foreign banks	• Net percentage Balance • Backward looking (3 months)
Bank of Canada *Senior Loan Officer Survey*	Quarterly (since 1999)	• Major financial institutions in Canada	• Balance of Opinions • For current Quarter (opinions collected near the end of the quarter for which the results are reported)
Bank of Japan *Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks*	Quarterly (since 2000)	• Large banks in terms of average amount outstanding of loans.	• Diffusion Index • Backward and forward looking (3 months)
European Central Bank *The Euro Area Bank Lending Survey*	Quarterly (since 2003)	• Representative sample euro area banks, takes into account the characteristics of the respective national banking structures.	• Net percentage Balance and Diffusion Index • Backward and forward looking (6 months for certain questions and 3 months for others) • Individual bank results are aggregated to national results for the euro area countries, and in the second step, the national BLS results are aggregated to euro area BLS results.
Bank of England *Credit Conditions Survey*	Quarterly (since 2007)	• Banks • Building society lenders	• Net percentage Balances • Backward and forward looking (3 months)

Source: Websites of central banks (details in reference list)

III. Reserve Bank's Lending Survey

The Reserve Bank's BLS is broadly in line with similar surveys conducted by other central banks. It provides practitioners' feedback on prevailing credit market conditions and gives indications on future demand for bank loans as well as alterations in their terms and conditions, well before actual data are available.

Methodology, Sample Size and Response Rate

The survey sample covers a panel of top 30 Scheduled Commercial Banks (SCBs) in India covering over 90 per cent of the total outstanding credit. A fixed panel of respondents is canvassed during a financial year and the panel is updated (factoring in banking business / mergers) based on credit outstanding in the latest financial year. The target respondents are heads of the credit department or senior credit officers of banks, who are generally given two-week's time to respond to the survey questionnaire. Participation in BLS is voluntary and the response rate is over 85 per cent.

The survey seeks a bank's qualitative outlook for two-time points - assessment of the current quarter *vis-a-vis* the previous quarter and expectations for the ensuing quarter *vis-a-vis* the current quarter. The multiple-choice questionnaire used in the survey covers broad economic sectors. In case of loan demand, responses are solicited on changes for the current quarter and expectations for the next quarter on a 5-point scale (*viz.*, substantial increase, moderate increase, similar (no change), moderate decrease and substantial decline) for the following sectors:

i. All sectors
ii. Agriculture
iii. Mining and quarrying (including coal)
iv. Manufacturing
v. Infrastructure
vi. Services
vii. Retail / Personal

Similar questions are asked on loan terms and conditions on a 5-point scale (*viz.*, considerable easing, somewhat easing, similar (no change), somewhat tightening, considerable tightening). The loan terms and conditions are specific to an approved loan, terms agreed between lender and borrower and laid down in the loan contract. The loan terms and conditions cover both price and non-price aspects and include agreed spread over the relevant reference/interest rate, the size of the loan and other non-interest charges (*e.g.* fee, collateral or guarantee requirement, loan covenants, agreed loan maturity). The loan terms are conditional on borrower's characteristics and may also change with bank's loan approval criteria.

Aggregation of Survey Responses

Responses collected in the BLS are on a 5-point scale and they are summarised into a single number called the Net Response (NR)[1], {also known as balance statistics (BS) score}, which is weighted difference between the proportions of positive and negative responses, where 'no change/similar' responses are assigned zero weight. NR can take values ranging from –100 to +100: positive values of NR indicate optimism for the parameter/sector (*e.g.*, bank experiencing increase in loan demand or easing of loan terms and conditions) whereas a value below zero reflects pessimism (*e.g.*, lower loan demand or tightening of loan terms and conditions). Thus the net response helps in quantifying qualitative responses that indicates the direction of the change in sentiments; however, it does not strictly estimate the magnitude of change.

[1] Net Response (NR) = $\{1*P_2 + 0.5*P_1 + 0*P_0 + (-0.5)*P_{(-1)} + (-1)*P_{(-2)}\}$, where, P_i = per cent of responses for i^{th} category viz., P_2 = per cent of banks reporting loan demand as 'Substantial increase' or loan terms and conditions as 'Considerable easing', P_1 = per cent of banks reporting loan demand as 'Moderate Increase' or loan terms and conditions as 'Somewhat easing', P_0 = per cent of banks reporting loan demand or loan terms and conditions to remain 'Same/No Change', $P_{(-1)}$ = per cent of banks reporting loan demand as 'Moderate decrease' or loan terms and conditions as 'Somewhat tightening' and $P_{(-2)}$ = per cent of banks reporting loan demand as 'Substantial decrease' or loan terms and conditions as 'Considerable tightening'.

IV. Survey Findings

After its initiation in 2017, thirteen rounds of BLS surveys have been completed. The broad movements in bankers' perceptions on loan demand and loan terms and conditions are presented in this section (Statements 1 to 4).[2]

Loan Demand

The Covid-19 pandemic and related lockdown resulted in significant contraction in loan demand across all sectors during April-June 2020, which severely dampened sentiments among Indian banks (Statement 1). During July-September 2020, however, the loan officers' sentiments recovered quickly, and the improvement was broad based. Infrastructure, mining and quarrying sectors recorded lower optimism than other sectors. Retail/personal loan demand was assessed to have posted maximum recovery after recording sharpest fall during the lockdown quarter (Q1:2020-21).

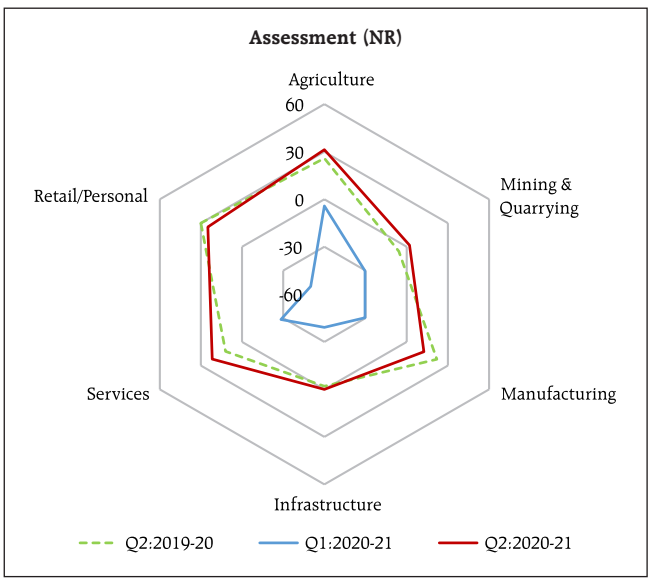
In the eleventh round of the BLS conducted during January-March 2020, senior loan officers expressed lower optimism for credit demand for all sectors but did not anticipate the contraction in advance as they could not foresee full impact, due to the severe and sudden nature of the Covid-19 pandemic witnessed later (Statement 2). The subsequent two survey rounds indicated improved quarter-on-quarter loan demand expectations. Among major sectors, bankers have been generally expecting higher demand for retail/personal loans and agriculture segments in the recent times, followed by manufacturing and services sectors.

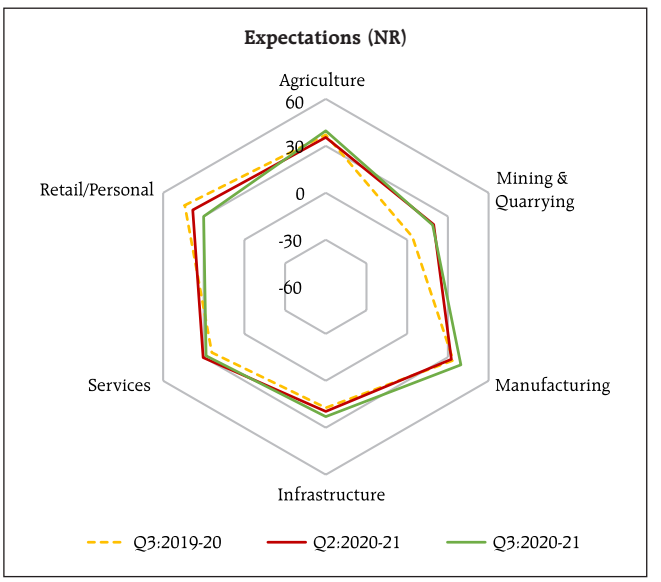
A comparison of the sector-specific NRs indicates banks' optimism on loan demand across sectors in July-September 2020, reviving from the low assessment reported in April-June 2020 (Chart 1). Banks also expect improvement in loan demand during Q3:2020-21.

Loan Terms and Conditions

Bankers do not foresee sudden quarter-on-quarter change in loan terms and conditions; these are more dependent on performance of loans across sectors, macroeconomic conditions and opportunities for

Chart 1: Sector-wise Loan Demand





[2] The survey results present respondents' collective views. Detailed BLS data for the 14th survey round (October-December 2020) onwards will be released on the Reserve Bank's website on the lines of other monetary policy surveys {*e.g.*, Industrial Outlook Survey (IOS), Order Book, Inventory and Capacity Utilisation Survey (OBICUS)}, after the resolution of the Monetary Policy Committee (MPC) is placed in the public domain.

growth across sectors. NRs for agriculture and personal loan segments have always been in the positive terrain indicating better loan terms and conditions in these sectors (Statement 3). The sentiments on loan terms and conditions for services sector too indicated easing, barring the assessment during the lockdown quarter. For infrastructure, mining and quarrying sector, however, more banks reported some tightening of loan terms.

A comparison of the sector-specific NRs indicates bankers polled better loan terms and conditions across the board in July-September 2020, reviving from low assessment in the previous quarter. They also expect further easing of 'loan terms and conditions' during Q3:2020-21 (Statement 4 and Chart 2).

V. Survey Results Relationship with Official Statistics and Other Surveys

In this section a comparison of survey results is made with trends in actual credit as well as other surveys to gain insights on whether they can be used as effective policy inputs.

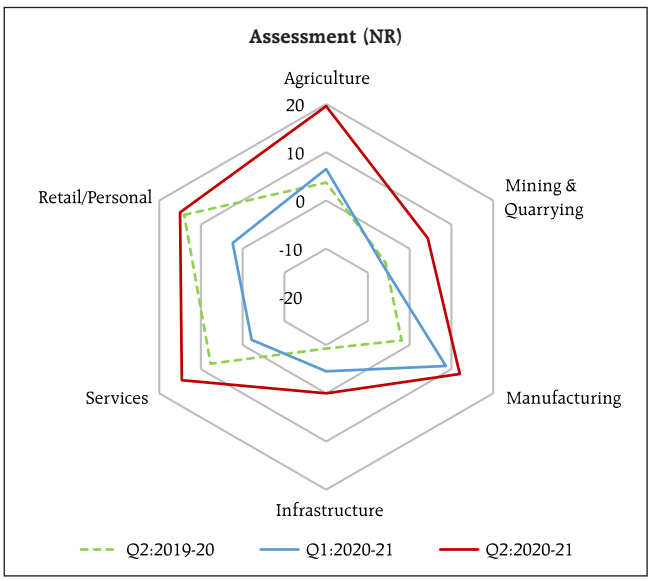
BLS and Actual Bank Credit

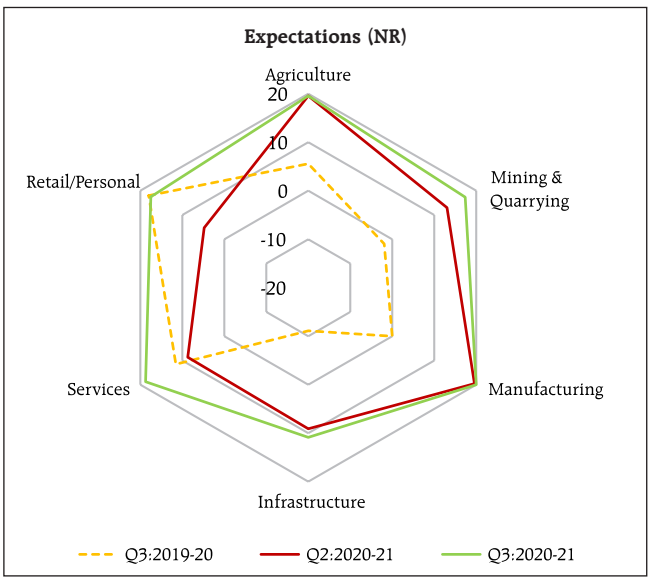
Bankers' assessment of changes in loan demand conditions are fairly close to the growth in actual credit by SCBs, the data which are released subsequently. Their expectations on loan demand have generally been more optimistic but broadly capture turning points in credit growth cycle (Chart 3).

Assessment of Credit Conditions for Manufacturing Sector by Borrowers and Lenders

BLS provides a supply side view (*i.e.*, lender's perspective) whereas RBI's quarterly Industrial Outlook Survey (IOS)[3] seeks demand side assessment and outlook on availability of finance (from banks and other domestic sources)[4] from manufacturers, who are an important segment of borrowers. IOS collects opinion on availability of finance on a 3-point

Chart 2: Sector-wise Loan Terms and Conditions

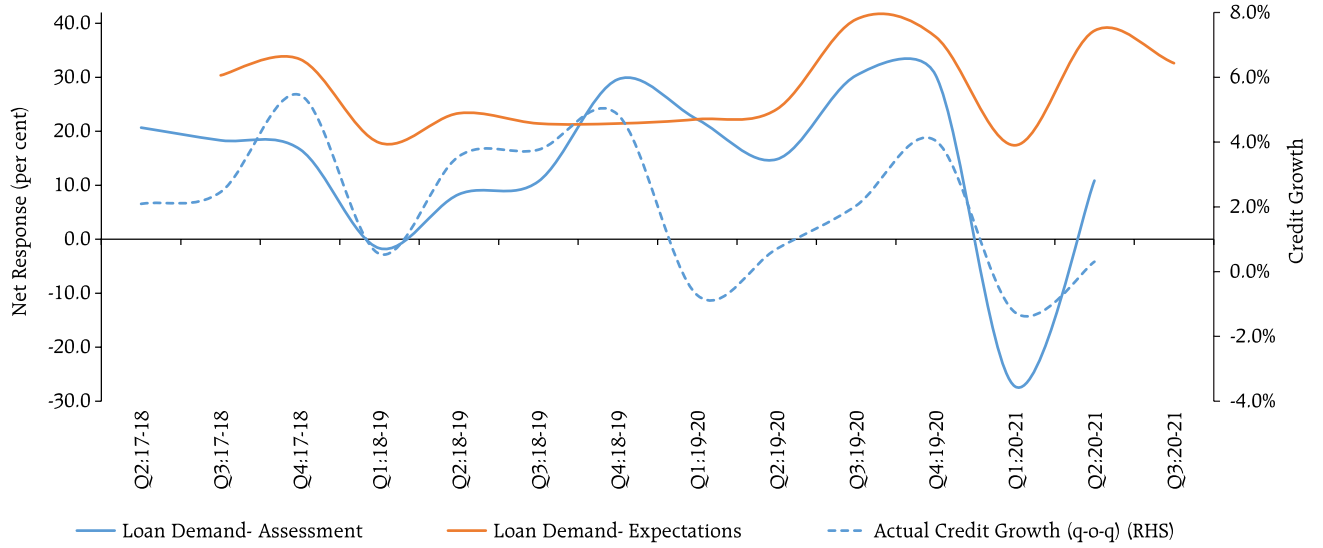




[3] The IOS data are released on the RBI website on a quarterly basis (see web-link *https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=19984* for the latest web release dated October 9, 2020).

[4] Parameters canvassed among manufacturers in the IOS are 'Availability of finance (from banks and other domestic sources *viz.*, financial institutions, capital markets etc.)', 'Availability of Finance (from internal accruals)' and 'Availability of Finance (from overseas, if applicable)'.

Chart 3 : BLS Loan Demand for All Sectors and Acutal Credit Growth

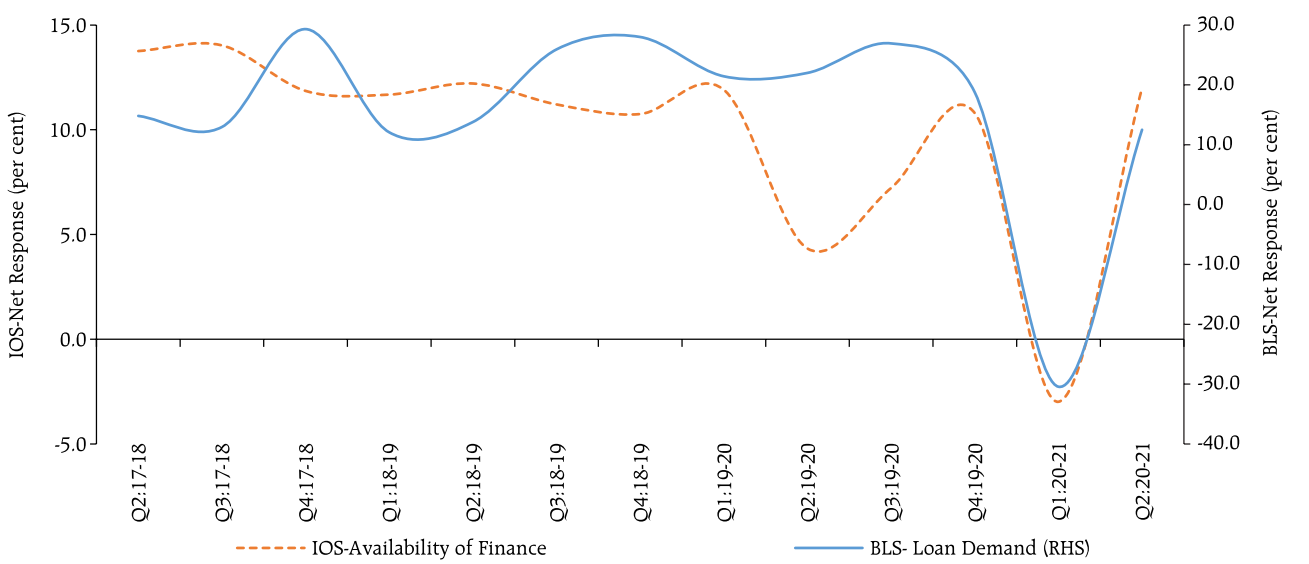


Source: Outstanding credit data from RBI monthly bulletin.

scale (improve / worsen / no change) and results are presented in the form of net responses[5].

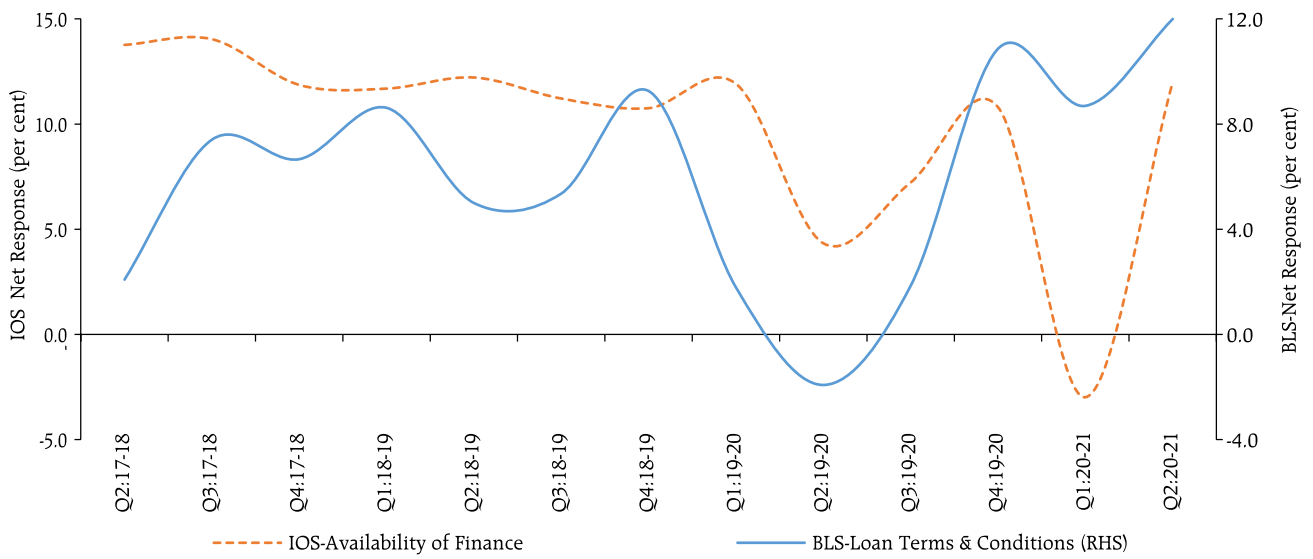
Bankers' assessment on 'loan demand from manufacturing sector' from the BLS and manufacturers' sentiments on availability of finance (from banks and other sources) from the IOS indicate similar directional changes at a few time points but the perceptions/turning points do not match in other cases possibly because similar assessment from non-bank sources, which may be accounting for a substantial portion of finance, is not available (Chart 4).

Chart 4: Manufacturing Sector: Loan Demand (BLS) and Availability of Finance (IOS)



[5] NR for IOS parameters is calculated as percentage of positive (optimistic) responses minus percentage of negative (pessimistic) responses.

Chart 5: Manufacturing Sector: Loan Terms & Conditions (BLS) and Availability of Finance (IOS)



Bankers' perception of easing of loan terms for manufacturing sector is generally in similar direction as manufacturers' improved sentiments on availability of finance (Chart 5). Co-movement of balance of opinions emanating from the two surveys corroborate the information on credit conditions for manufacturing sector.

VI. Conclusion

The survey results reveal that there has been broad-based improvement in bankers' sentiments on lending conditions, after severe impact of the pandemic during April-June 2020. Responses suggest that perceptions on retail/personal loans, which were most severely hit during the period, have bounced back. The respondents expressed lower optimism for the infrastructure, mining and quarrying sectors when compared to other major sectors.

Taking a longer term view, BLS mimics the actual credit growth quite well and since the survey results are available in advance, it may prove to be a useful tool for policymakers to gauge the underlying trends. A broad corroboration is also observed in the borrowers' perceptions from the IOS and lenders' sentiments reflected in the BLS. Going forward, regular availability of BLS results is likely to provide useful prognosis of credit market conditions.

Statement 1: Net Response for Sector-wise Loan Demand – Assessment for Current Quarter

(per cent)

Survey Round No.	Survey Assessment Quarter	All Sectors	Agriculture	Mining & Quarrying (Including Coal)	Manufacturing	Infrastructure	Services	Retail / Personal Loans
1	Q2:17-18	20.7	27.6	3.4	14.8	1.9	8.9	36.5
2	Q3:17-18	18.3	31.7	-8.3	13.0	7.1	22.4	31.3
3	Q4:17-18	16.7	23.3	-13.8	29.3	25.0	23.3	50.0
4	Q1:18-19	-1.7	25.0	3.4	12.1	0.0	16.7	26.8
5	Q2:18-19	8.3	10.0	-3.3	13.8	1.7	18.3	31.0
6	Q3:18-19	10.7	24.1	0.0	25.9	1.8	14.3	44.0
7	Q4:18-19	29.6	28.8	7.4	28.0	5.6	18.5	36.0
8	Q1:19-20	22.2	29.3	-1.9	21.4	10.3	17.9	23.1
9	Q2:19-20	14.8	25.9	-5.8	22.0	-1.9	12.0	30.0
10	Q3:19-20	30.4	30.4	9.3	26.9	3.7	17.3	46.2
11	Q4:19-20	30.4	36.0	0.0	18.8	4.3	13.0	32.5
12	Q1:20-21	-27.3	-4.2	-30.4	-30.4	-39.1	-28.3	-50.0
13	Q2:20-21	10.9	31.3	2.1	12.5	0.0	21.7	25.0

Statement 2: Net Response for Sector-wise Loan Demand – Expectations for Next Quarter

(per cent)

Survey Round No.	Survey Expectations Quarter	All Sectors	Agriculture	Mining & Quarrying (Including Coal)	Manufacturing	Infrastructure	Services	Retail / Personal Loans
1	Q3:17-18	30.4	37.9	10.3	24.1	16.7	28.6	46.2
2	Q4:17-18	33.3	38.3	8.3	26.8	20.4	29.3	39.6
3	Q1:18-19	17.9	30.0	8.6	19.0	8.6	23.3	42.9
4	Q2:18-19	23.3	41.7	1.7	25.9	13.8	25.0	41.1
5	Q3:18-19	21.4	17.9	5.2	22.2	3.6	17.9	38.9
6	Q4:18-19	21.4	24.1	5.8	31.5	10.7	23.2	38.0
7	Q1:19-20	22.2	25.0	1.9	16.0	1.9	14.8	22.0
8	Q2:19-20	24.1	29.3	0.0	26.8	5.2	25.0	36.5
9	Q3:19-20	40.7	37.0	3.8	34.0	17.3	24.0	44.0
10	Q4:19-20	37.5	32.1	5.6	34.6	18.5	23.1	48.1
11	Q1:20-21	17.4	24.0	-4.2	12.5	8.7	15.2	30.0
12	Q2:20-21	38.6	35.4	19.6	32.6	19.6	30.4	38.1
13	Q3:20-21	32.6	39.6	18.8	39.6	22.9	28.3	30.0

Statement 3: Net Response for Sector-wise Loan Terms and Conditions – Assessment for Current Quarter

(per cent)

Survey Round No.	Survey Assessment Quarter	All Sectors	Agriculture	Mining & Quarrying (Including Coal)	Manufacturing	Infrastructure	Services	Retail / Personal Loans
1	Q2:17-18	5.6	12.1	3.6	2.1	-1.9	4.0	13.0
2	Q3:17-18	7.1	10.0	-1.7	7.4	8.9	11.1	12.5
3	Q4:17-18	8.3	6.7	-8.9	6.7	0.0	0.0	24.1
4	Q1:18-19	0.0	6.7	-7.1	8.6	-11.7	8.6	12.5
5	Q2:18-19	-5.0	8.3	-6.9	5.0	-15.0	5.2	15.5
6	Q3:18-19	-5.6	5.6	-7.7	5.4	-14.3	3.6	16.7
7	Q4:18-19	13.5	11.5	5.6	9.3	-1.9	7.4	13.5
8	Q1:19-20	5.6	7.1	-1.9	1.8	-15.5	10.3	14.8
9	Q2:19-20	6.3	3.7	-5.8	-1.9	-9.3	7.7	14.0
10	Q3:19-20	5.8	7.1	1.9	1.9	-7.4	3.7	26.9
11	Q4:19-20	10.9	8.3	-2.0	10.9	-6.5	2.1	18.4
12	Q1:20-21	-2.2	6.5	-6.5	8.7	-4.5	-2.2	2.4
13	Q2:20-21	0.0	19.6	4.3	12.0	0.0	14.6	15.0

Statement 4: Net Response for Sector-wise Loan Terms and Conditions – Expectations for Next Quarter

(per cent)

Survey Round No.	Survey Expectations Quarter	All Sectors	Agriculture	Mining & Quarrying (Including Coal)	Manufacturing	Infrastructure	Services	Retail / Personal Loans
1	Q3:17-18	7.7	12.5	5.6	6.8	2.0	8.0	15.2
2	Q4:17-18	8.9	16.7	1.7	13.0	10.7	14.8	18.8
3	Q1:18-19	1.7	6.7	-1.8	10.0	0.0	5.4	18.5
4	Q2:18-19	1.7	8.3	-5.4	6.9	-8.3	8.6	12.5
5	Q3:18-19	3.3	5.0	-3.4	5.0	-10.0	3.4	15.5
6	Q4:18-19	7.7	5.6	0.0	7.1	-12.5	10.7	18.5
7	Q1:19-20	15.4	7.7	3.7	11.1	0.0	5.6	11.5
8	Q2:19-20	9.3	3.6	0.0	10.7	-13.8	13.8	16.7
9	Q3:19-20	2.1	5.6	-1.9	0.0	-11.1	11.5	18.0
10	Q4:19-20	11.5	7.1	1.9	7.4	-7.4	3.7	21.2
11	Q1:20-21	8.7	8.3	-4.0	8.7	-10.9	0.0	10.5
12	Q2:20-21	15.2	19.6	13.0	19.6	9.1	8.7	4.8
13	Q3:20-21	17.4	19.6	17.4	20.0	10.9	18.8	17.5

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*Seasonality in India's Key Economic Indicators**

The article presents the seasonal factors of 80 selected economic/financial time series comprising monetary, banking, price statistics, production data, service sector indicators, merchandise trade and alternate modes of payment. This article finds that most of the production-related variables seasonally peak around March and price-related variables record a seasonal trough around the same time. The seasonal variations in the prices of food products and primary articles have become accentuated over the last decade. As regards payment modes, instruments related to bulk transactions tend to peak during March, whereas, in the case of retail payment, seasonality peaks during festivals.

Introduction

Seasonal variations recurring weekly, monthly or quarterly constitute a behavioural component in economic series and therefore can be predictable. It is intertwined with other time series components, *viz.*, trend, cyclical variations and random fluctuations. The presence of seasonality tends to obscure the true underlying characteristics of the economic variable and its data generating process as well as the inter-relationships between variables. At the same time, correctly understanding seasonal variations helps to accurately foresee behavioural changes. In this context, identification and segregation of seasonal factors of an economic variable is a first step to appropriately use the information for the purposes of modelling and forecasting.

Measuring seasonality and undertaking seasonal adjustments has been established as the best practice while modeling time series data. The cross country experience reveals that the USA measures GDP growth in terms of quarter-on-quarter annualised rates of change after adjusting for seasonality. The Inflation Report of the Bank of England generally uses seasonally adjusted data. The Quarterly Financial Report of Bank of Canada publishes assessment of seasonal demand for bank notes. The International Monetary Fund (2016) has advised member countries to report seasonally adjusted broad money data in their 'Standardised Report Form for Money Aggregates' in its International Financial and Monetary Statistics.

The Reserve Bank has been publishing monthly seasonal factors for important macroeconomic variables since 1980. This article carries forward this endeavor by computing and updating seasonal factors upto 2019-20. The rest of the article is organised as follows. A review of the literature relating to evolution of methodology and global usage of seasonal factors is presented in Section II. The economic variables selected for study and choice of technique for extracting seasonal factors are explained in Section III. Section IV brings out the seasonality patters for various groups of macroeconomic variables based on average monthly seasonal factors in light of data upto 2017-18. Section V presents the results on temporal shifts in seasonality patterns followed by empirical evaluation of seasonal variation. Section VI concludes the article with some policy perspective.

II. Review of the Literature

In literature, time series are assumed to be composed of orthogonal components, *viz.*, trend, seasonal, cyclical and irregular components. In an additive model, the time series is represented as the sum of the four components mentioned above, whereas in a multiplicative model the time series is the product of the components. Seasonality is the yearly or monthly predictable variation of the time series over and above trend and cycle. Seasonality plays a key role in short-term analysis of macro-economic factors and aids in effective decision-making.

* Prepared by Srijashree Sardar, Kashyap Gupta and Jugnu Ansari of the Modeling and Forecasting Division, Department of Statistics and Information Management. The views expressed are those of the authors and do not represent the views of the Reserve Bank of India.

The literature refers to unmasking relevant short and long-term movements of economic time series by accounting for the behavioural nature of seasonality (Manna, *et al.*, 2003; HCSO, 2017). Estimates of seasonal factors are observed to have improved the trend-based forecasts of economic variables (Lembke, 2015). Seasonal adjustment has been employed along with various smoothening and filtering techniques to extract the persistent component in economic variables, notably core inflation (Samanta, *et al.*, 2000). The use of non-parametric singular spectrum analysis for extraction of seasonality has been discussed in the context of Global Positioning System (GPS) signal extraction (Chen, *et al*, 2013) and other related fields.

The literature on estimation of seasonal factors has a long history, starting from ratio-to-moving-average method (Macaulay, 1931), further refined as Census Methods by the US Census Bureau in 1954-55. Extensive research on the explicit functional specification of seasonal and trend/cycle components led to development of various versions of seasonal adjustment methods. The X-11 method (US Census Bureau, 1965) provided functional flexibility such as multiplicative as well as additive representation of components, treatment for extreme values and various tests for seasonality (Shiskin, *et al.*, 1967). A major limitation of X-11 method, which is based on moving average or linear smoothing filter, however, was the lack of reliability of estimates for the most recent year because of inability to apply symmetric weights to end points as against central observations. This led to frequent revisions of estimates of most recent observations as more data points get added (Dagum, 1980).

Statistics Canada's X-11-ARIMA method incorporated an Autoregressive Integrated Moving Average (ARIMA) model into the X-11 method to extrapolate original time series data for one year at both ends of the series. This helped to deal with the 'end points' problem and to obtain robust estimates of seasonal factors in a scenario when seasonality is moving rapidly in a stochastic way. The US Census Bureau developed X-12-ARIMA as an enhanced version of X-11 and added a feature called RegARIMA, which has an option of built-in or user-defined regressors that enable estimation of stock trading day and holiday effects as well as disruptions in the series such as sudden changes in levels (US Census Bureau, 2011).

US Census Bureau's latest X-13 ARIMA-SEATS (Signal Extraction in ARIMA Time Series) is an enhanced version of the X-11 variant with two additional options, *viz.,* TRAMO (Time series Regression with ARIMA Noise, Missing Values and Outliers) for automatic model selection and Seasonal Extraction in ARIMA Time Series (SEATS) for conducting the seasonal adjustment procedure (Gomez, *et al.,* 1996; 2001a; 2001b; US Census Bureau, 2011).

III. Data and Methodology

In line with the best country practices and upholding standards set in the past in the Reserve Bank, the macroeconomic indicators covered here are monetary, banking, price statistics, production data, service sector indicators and merchandise trade. In recognition of the rapid proliferation of alternate modes of payment in India, *viz.,* real time gross settlements (RTGS), paper clearing, retail electronic clearing (REC) and card payment, they are also subjected to seasonality analyses. Specifically, 80 monthly macroeconomic variables disaggregated by sector include 14 monetary and banking indicators, 21 categories of indices relating to consumer prices, nine relating to wholesale prices, 23 on industrial production, six on service sector indicators, three on merchandise trade and four series on alternative payment indicators. Seasonal factors are mostly derived from time series dating back to April 1994 (Annex Table 1).

Seasonal factors have been estimated under multiplicative model by using the X13-ARIMA-SEATS software of the US Census Bureau, after configuring it to suit Indian conditions, *e.g.,* incorporating Diwali and Indian trading day effects.

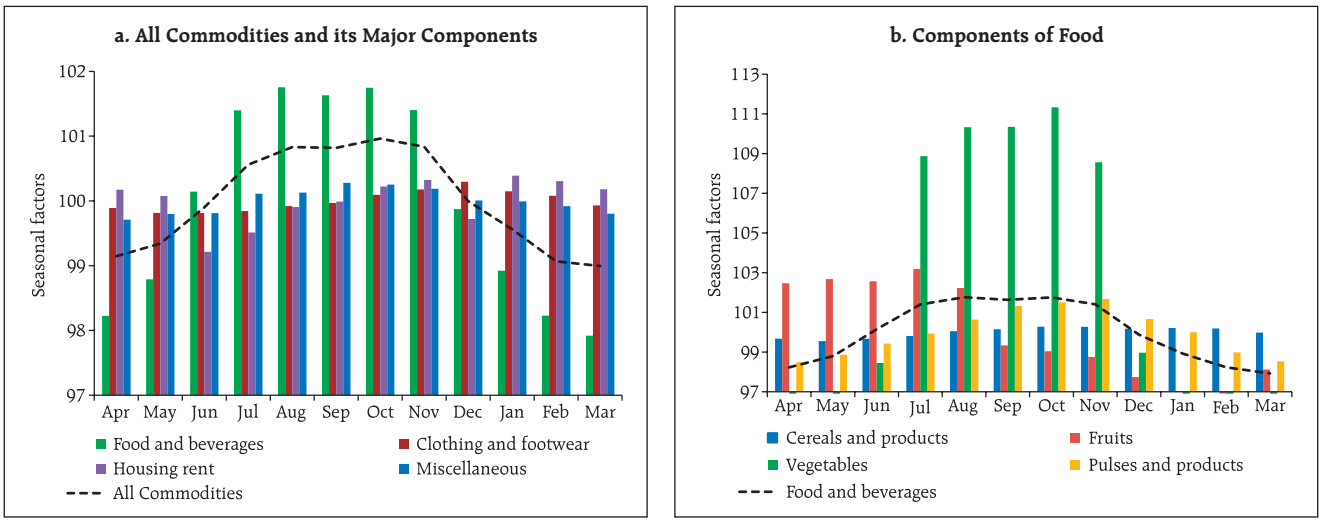
Seasonal adjustment can be done in two ways; i) direct approach - applying the seasonal adjustment procedure directly to the aggregate series; and ii) indirect approach – first seasonally adjusting each components of the composite series and then summing (aggregating) the components to get seasonally adjusted composite (Manna *et al.*, 2003). The article follows the direct approach.

IV. Analysis of Results

All the macroeconomic variables considered here exhibit different seasonality (Annex Tables 2 and 3)[1]. Of the 14 major monetary and banking indicators, 11 recorded seasonal peaks during March or April (around the financial year closure), whereas seasonal troughs for the majority of these series can be located either in August or in December. For example, bank loans registered a seasonal peak in March, whereas banks' investments register a seasonal trough in the same month. Demand deposits of scheduled commercial banks (SCBs) exhibited the highest seasonal variation (average seasonal factor (SF) range[2] at 9.3) followed by reserve money (average SF range at 6.0) and cash in hand and balances with RBI (SCBs) (average SF range at 5.8). On the other hand, time deposits of SCBs, exhibited the smallest seasonal variation (average SF range at 1.3) indicating preference to banks' deposits as a savings avenue for fixed return and low risk (Annex Table 4).

Turning to prices, the Consumer Price Index (CPI) headline experiences seasonal upside pressure between July and November, which is largely due to the prices of food and beverages. CPI-food is driven by the seasonal patterns of prices of vegetables. Prices of fruits peak during the summer (April - August) and those of vegetables around the monsoon (July - November) due to lower availability and persistent demand (Chart 1).

Chart 1: Average* Monthly Seasonal Factors of CPI (Combined)



Source: CSO and Staff calculation.
*: Average of monthly seasonal factors of last seven years.

[1] In case data are available for less than ten years, average for the corresponding period is taken.

[2] Range, a measure of dispersion, is calculated as the difference between maximum and minimum of monthly seasonal factors. Higher value of range indicates higher seasonality in the variable yielding to heightened activities/prices during a particular period of a year. 'Average seasonal factor range' is the range of average seasonal factors for the last ten years.

CPI-vegetables showed the highest seasonal variation (nine-year average SF range at 23.0). Among vegetables, prices of tomatoes, onions and potatoes recorded average SF range of 65.6, 40.4 and 35.6, respectively. Seasonal variation in fruits prices was found to be lower (average SF range of 6.3) than those of vegetables. Further, seasonal variations in the prices of cereals and products were found to be lower (average SF range at 0.7) than that of pulses and products (average SF range at 3.2), where mismatches between supply and demand were persistent, possibly caused by production uncertainty and diet shifts linked to the economic development. On the other hand, CPI - non-alcoholic beverages exhibited the smallest seasonal variation (average SF range at 0.3), which could be attributed to rising awareness about healthy lifestyle and wellness among consumers. Seasonality in the aggregate CPI series [CPI-Combined, CPI for Industrial Workers (CPI-IW), CPI for Agricultural Labourers (CPI-AL) and CPI for Rural Labourers (CPI-RL)] is low while it is pronounced in some of the components, mainly food items (Annex Table 4).

Seasonal troughs in WPI series were concentrated in only two months (March and December) relative to the distribution of seasonal peaks. Seasonal fluctuations in the WPI-all commodities were largely driven by prices of primary articles, especially food, which have a seasonal pattern similar to CPI-food and beverages. Prices of fuel and power recorded the highest seasonal variation (average SF range at 19.4) and among manufactured products group, manufacture of food products showed the lowest seasonal variation (average SF range at 2.2) (Annex Table 4).

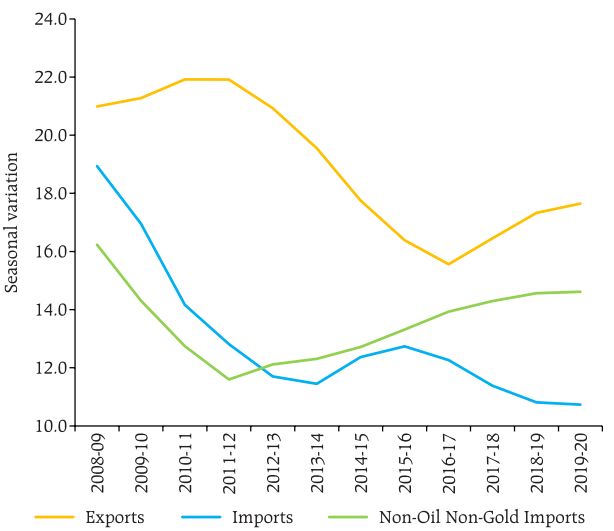
As regards seasonality in output, industrial production is highly seasonal. The index of industrial production (IIP) showed an average SF range of 13.0. Among the major sectors, mining had the highest seasonal variation (average SF range at 30.8); under the use-based classification, capital goods had the highest seasonal fluctuation (average SF range at 35.1). Seasonal peaks in the IIP series mostly occurred in March, the last month of the financial year, which could be due to achieving annual targets; seasonal troughs, on the other hand, were scattered. A seasonal moderation in cement production was observed between July to November, which is the monsoon season in major parts of India. Fertiliser production registered a seasonal decline between February to June, which is the harvesting time of *rabi* crops and a lean season for agricultural activity.

Four of the six services sector indicators recorded seasonal peaks in March. Only in the case of domestic and international passenger traffic, the seasonal peak coincided with the holiday seasons in May and January, respectively.

The seasonal peaks for merchandise exports remained unchanged in March, coinciding with the peak in the industrial production while non-oil non-gold imports also remained unchanged in December, but the peak in imports shifted to October from March earlier (Chart 2 & Annex Table 2).

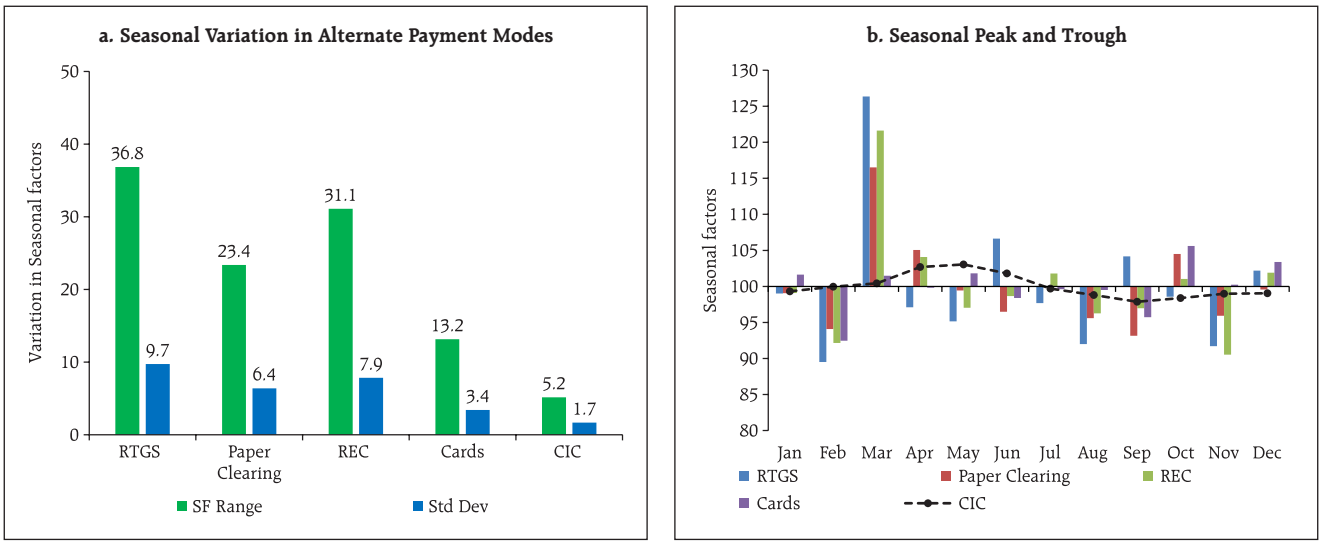
The analysis of alternate payment modes shows that RTGS, paper clearing and retail electronic clearance recorded high seasonal variations and peak

Chart 2: Seasonal Variation* of Merchandise Trade



* Difference between SF in peak month and SF in trough month during a year.

Chart 3: Seasonal Variation in Alternate Modes of Payment and Currency in Circulation



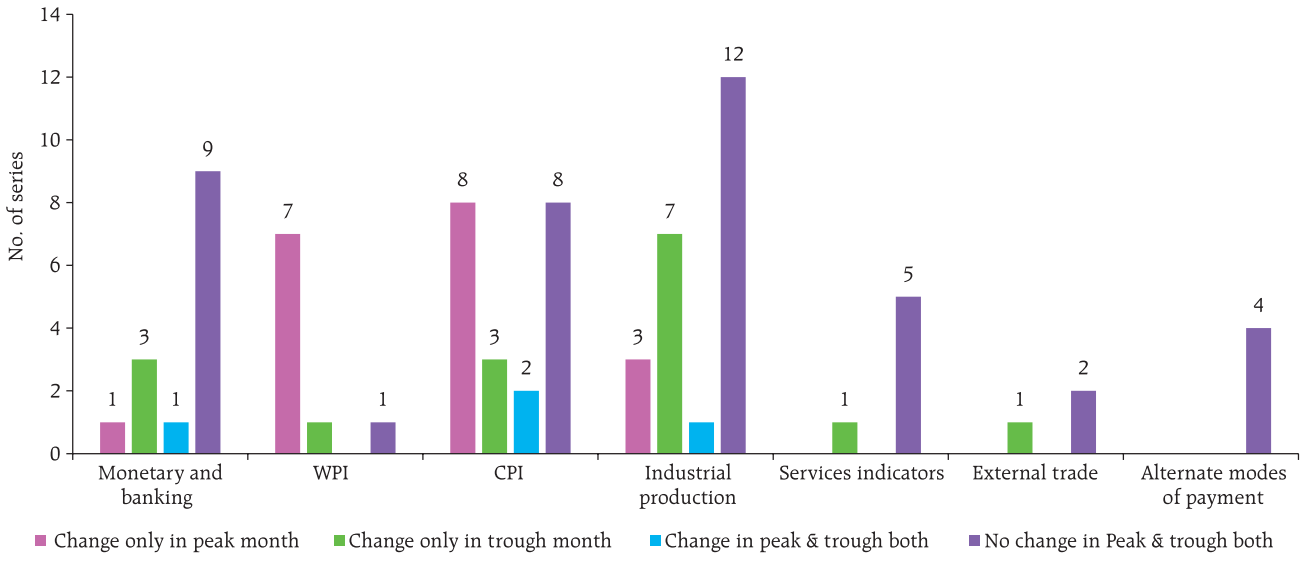
Source: : RBI and Staff calculation.

during March, indicating heightened usage of online transfers on annual financial year closing, whereas the seasonal peak of usage of card payments mode was found to be during October, consumption – demand around the festival season. The seasonal troughs, on the other hand, were found to be distributed over February, September and November (Chart 3 and Annex table 2).

V. Has Seasonality Changed?

A simple way of identifying change in seasonality patterns in 2019-20 would be to compare the outcomes for 2019-20 with the average seasonal factors for the last five years (2014-15 to 2018-19). Out of the 80 selected series, the peak and the trough for 41 series remained unchanged whereas four series recorded shifts in both peaks and troughs (Chart 4 and Annex

Chart 4: Instance of Shifting Seasonal Peak and Trough Months



Source: RBI staff calculation.

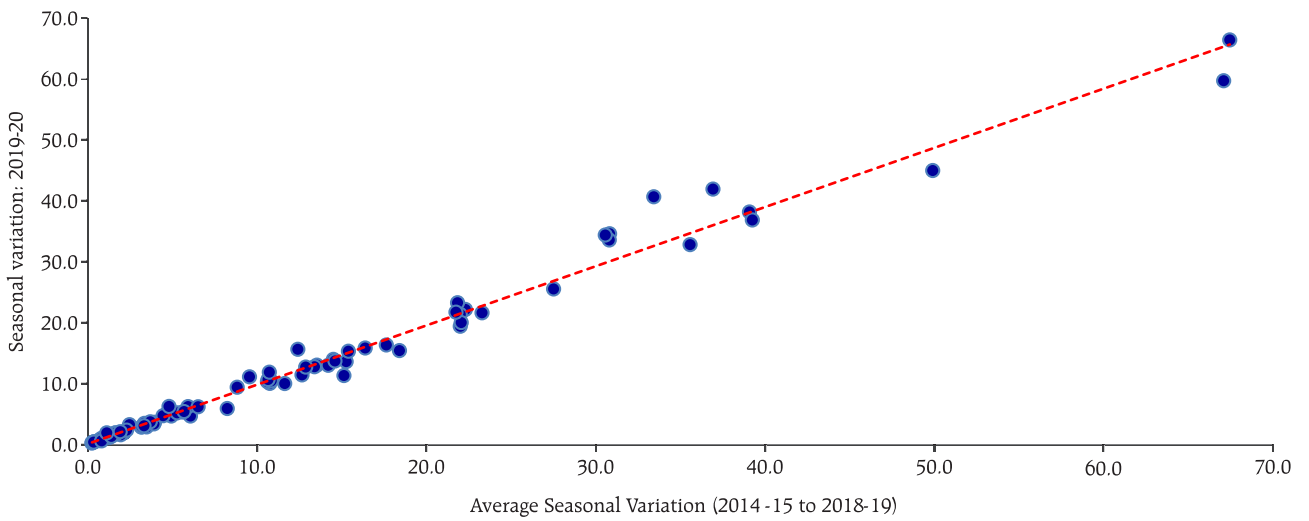
table 5). This change in seasonality was noticed mainly in the case of CPI. The seasonal peak in CPI-all commodities advanced to November in 2019-20 from October earlier, mainly reflecting change in the prices of vegetables. Seasonal peaks in the prices of CPI-food and beverages also shifted to November from August earlier which got aligned with the seasonal peak in the prices of food articles in the wholesale market. Further, greater convergence in the seasonal peaks of the components of industrial production was found in 2019-20.

In order to explore 'moving seasonality'- changes in seasonal factors over time - detecting the presence of secular trend is critical. A downward (upward) trend in the seasonal fluctuation of a series shows decline (increase) in seasonal variation over time.

While in majority of the cases, seasonal variation/ fluctuations (difference between the maximum and the minimum monthly seasonal factors) in 2019-20 remained similar to the previous five years' average (Chart 5), empirical evidence indicates that seasonal fluctuations moderated for 35 series over a longer time horizon of last 10 years (Annex table 6). On the other hand, seasonality became more pronounced in another 22 series.

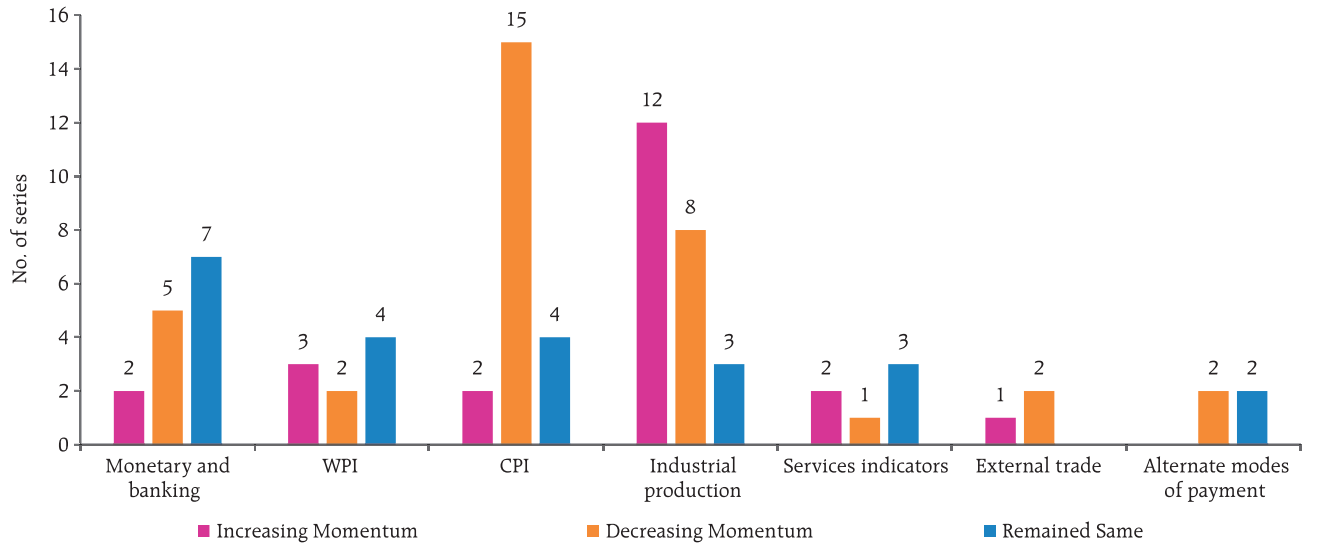
Seasonal fluctuations in monetary and banking aggregates either moderated or remained broadly unchanged during last 10 years, arguably reflecting better availability of banking services. Though seasonal fluctuation in general IIP remained unchanged, mining, manufacturing and electricity recorded rise in seasonal variation. The mining activity, especially coal, is adversely affected due to rain and slowdown in railway transport during the monsoon season. Hence, supposedly the higher production during active season to meet rising demand for coal and other minerals explains the rise in seasonal fluctuation over time. Seasonal variation moderated for the majority of CPI-combined elements; retail prices of tomatoes, meat and fish exhibited higher seasonality while potato and onion prices showed lower seasonality. In the wholesale market, WPI-all commodities showed more

Chart 5: Comparative Analysis of Seasonal Variation



Source: RBI staff calculation.
Note: The above scatter plot presents a comparative position of seasonal variation in 80 macroeconomic indicators selected for study.

Chart 6: Pattern of Changing Seasonal Fluctuation



Source: RBI staff calculation.

seasonal variation mainly due to prices of chemicals and chemical products (Chart 6).

VI. Conclusion

Seasonal adjustment has a crucial role to play in an accurate reading of the economy and in making policy decisions. It is observed that the heightened seasonal demand for currency in circulation around financial year-end and beginning of agricultural season, *viz.*, March and June gives a cue for efficient currency management in the country, similarly, the knowledge of seasonal pattern in banks' deposits can be used in managing the banks' resources optimally.

Driven by the prices of vegetables, CPI headline inflation exhibited price pressures during the monsoon season. The seasonal peak for general retail prices got advanced to November in 2019-20 from October, aligning with the wholesale market. This calls for efficient supply chain management during such periods.

Majority of categories of industrial production peak in March whereas the production of consumer non-durables peak in December. The seasonal peak in the manufacture of textiles had advanced to December, the winter season in the country, from August earlier. Imports and exports experience a peak during March. Further, bank credit peaks in March, apparently to cater to the year-end pressure of target achievements. Well strategizing credit availability by banks and credit institutions, keeping in mind the demand around festivals, will provide stimulus to the productive activities.

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Annex

Table 1: Time Period Used for Estimating Seasonal Factors

Name of Sectors/Variables	Time Period	Name of Sectors/Variables	Time Period
Monetary and Banking Indicators (14 series)		**Index of Industrial Production (23 series)**	
A.1.1 Broad Money (M3)	April 1994 to March 2020	E. IIP (Base 2011-12 = 100) General Index	April 1994 to March 2020
A.1.1.1 Net Bank Credit to Government			
A.1.1.2 Bank Credit to Commercial Sector			
A.1.2 Narrow Money (M1)		E.1.1 IIP - Primary goods	April 2012 to March 2020
A.1.3 Reserve Money (RM)		E.1.2 IIP - Capital goods	
A.1.3.1 Currency in Circulation		E.1.3 IIP - Intermediate goods	
A.2.1 Aggregate Deposits (SCBs)		E.1.4 IIP - Infrastructure/ construction goods	
A.2.1.1 Demand Deposits (SCBs)		E.1.5 IIP - Consumer goods	
A.2.1.2 Time Deposits (SCBs)		E.1.5.1 IIP - Consumer durables	
A.3.1 Cash in Hand and Balances with RBI (SCBs)		E.1.5.2 IIP - Consumer non-durables	
A.3.2 Bank Credit (SCBs)		E.2.1 IIP - Mining	April 1994 to March 2020
A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs)		E.2.2 IIP - Manufacturing	
A.3.2.2 Non-Food Credit (SCBs)		E.2.2.1 IIP - Manufacture of food products	April 2012 to March 2020
A.3.3 Investments (SCBs)		E.2.2.2 IIP - Manufacture of beverages	
Price Indices[CPI: 21 series and WPI: 9 series]		E.2.2.3 IIP - Manufacture of textiles	
B. CPI (Base: 2012 = 100) All Commodities	January 2011 to March 2020	E.2.2.4 IIP - Manufacture of chemicals and chemical products	
B.1 CPI - Food and beverages		E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	
B.1 .1 CPI - Cereals and products		E.2.3 IIP - Electricity	April 1994 to March 2020
B.1 .2 CPI - Meat and fish		E.3 Cement Production	April 2004 to March 2020
B.1 .3 CPI – Egg		E.4 Steel Production	
B.1 .4 CPI - Milk and products		E.5 Coal Production	
B.1 .5 CPI – Fruits		E.6 Crude Oil Production	
B.1 .6 CPI - Vegetables		E.7 Petroleum Refinery Production	
B.1 .6.1 CPI – Potato		E.8 Fertiliser Production	
B.1 .6.2 CPI – Onion		E.9 Natural Gas Production	
B.1 .6.3 CPI – Tomato		**Service sector Indicators (6 series)**	
B.1 .7 CPI - Pulses and products		F.1 Production of Commercial Motor Vehicles	April 1994 to March 2020
B.1 .8 CPI – Spices		F.2 Cargo handled at Major Ports	
B.1 .9 CPI - Non-alcoholic beverages		F.3 Railway Freight Traffic	
B.1 .10 CPI - Prepared meals, snacks, sweets etc.		F.4 Sales of Commercial Motor Vehicles	
B.2 CPI - Clothing and footwear		F.5 Passenger flown (Km) - Domestic	
B.3 CPI – Housing		F.6 Passenger flown (Km) - International	
B.4 CPI - Miscellaneous		**Merchandise Trade (3 series)**	
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	January 2000 to March 2020	G.1 Exports	April 1994 to March 2020
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)		G.2 Imports	
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)		G.3 Non-Oil Non-Gold Imports	
D. WPI (Base: 2011-12=100) All Commodities	April 1994 to March 2020	**Alternate Modes of Payment (4 Series)**	
D.1 WPI - Primary Articles		H.1 Real Time Gross Settlement	April 2004 to March 2020
D.1.1 WPI - Food Articles			
D.2 WPI - FUEL & POWER		H.2 Paper Clearing	April 2005 to March 2020
D.3 WPI - MANUFACTURED PRODUCTS			
D.3.1 WPI - Manufacture of Food Products		H.3 Retail Electronic Clearing	April 2004 to March 2020
D.3.2 WPI - Manufacture of Chemicals & Chemical Products			
D.3.3 WPI - Manufacture of Basic Metals Alloys & Metals Products		H.4 Cards	
D.3.4 WPI - Manufacture of Machinery & Machine Tools			

Note:

1. CPI-Combined data is available from January 2011 only.
2. CPI-IW, AL & RL data are broadly aligned with the latest base year of CPI-IW.
3. Data on IIP use-based and disaggregated sectors (NIC-2 digit level) was considered since Apr 2012 as back series could not be computed due to major changes in coverage from previous base year.
4. All the data being used for this study are publically available in the Database on India Economy, Reserve Bank of India.

Table 2: No. of Peaks and Trough Observed Over Different Months*

Sectors/sub-sectors		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Monetary and Banking	**Peak**	4	1		1	1							7	**14**
	Trough					4	1	2		4	2		1	**14**
CPI	**Peak**			1	2	1	2	3	8	2	2			**21**
	Trough	7	4	2					1			3	4	**21**
WPI	**Peak**	2	2		2	1	1	1						**9**
	Trough									4	1	1	3	**9**
Industrial Production	**Peak**		2		1	1		3		2			14	**23**
	Trough	6		1		3	5		2	1		5		**23**
Services Indicators	**Peak**		1								1		4	**6**
	Trough	1		1			4							**6**
External Trade	**Peak**							1		1			1	**3**
	Trough								1			2		**3**
Alternate Modes of Payment	**Peak**							1					3	**4**
	Trough						1		1			2		**4**
Total	**Peak**	**6**	**6**	**1**	**6**	**4**	**3**	**9**	**8**	**5**	**3**	**0**	**29**	**80**
	Trough	**14**	**4**	**4**	**0**	**7**	**11**	**2**	**5**	**9**	**3**	**13**	**8**	**80**

***Note:**

1. In general, seasonal peaks and troughs have been decided based on the average seasonal factors of last ten years.
2. Blank cells indicate no peak or trough observed.

Table 3: Average* Monthly Seasonal Factors of Selected Economic Time Series *(Contd.)*

Series/Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	2	3	4	5	6	7	8	9	10	11	12	13
Monetary and Banking Indicators(14 series)												
A.1.1 Broad Money (M3)	**101.2**	100.8	100.0	100.1	99.8	99.6	99.9	99.6	**99.2**	99.5	99.6	100.7
A.1.1.1 Net Bank Credit to Government	101.2	101.1	100.8	**101.8**	101.2	99.7	99.8	99.7	**97.9**	99.1	99.1	98.7
A.1.1.2 Bank Credit to Commercial Sector	100.9	100.3	100.2	99.5	**99.1**	99.3	99.4	99.2	99.7	100.0	100.4	**102.2**
A.1.2 Narrow Money (M1)	102.0	101.4	100.6	99.2	98.8	99.1	99.0	98.7	98.8	**98.7**	99.9	**103.7**
A.1.3 Reserve Money (RM)	102.0	101.7	101.1	99.7	98.9	98.4	**98.2**	98.9	98.8	99.0	99.2	**104.1**
A.1.3.1 Currency in Circulation	102.7	**103.0**	101.8	99.7	98.8	**97.9**	98.4	99.0	99.0	99.3	100.0	100.4
A.2.1 Aggregate Deposits (SCBs)	**100.9**	100.4	99.8	100.2	99.9	99.8	100.1	99.8	**99.4**	99.5	99.5	100.8
A.2.1.1 Demand Deposits (SCBs)	101.1	99.4	99.6	98.4	98.3	101.0	**98.0**	98.9	100.7	98.2	98.9	**107.3**
A.2.1.2 Time Deposits (SCBs)	**100.7**	100.5	99.8	100.3	100.0	99.6	100.4	100.0	**99.4**	99.7	99.6	100.0
A.3.1 Cash in Hand and Balances with RBI (SCBs)	**101.8**	99.7	101.7	99.9	100.5	101.1	98.7	101.4	101.2	**96.1**	99.0	99.7
A.3.2 Bank Credit (SCBs)	101.0	100.3	100.3	99.5	**99.0**	99.3	99.2	99.1	99.9	99.9	100.3	**102.3**
A.3.2.1 Loans, Cash, Credits and Overdrafts (SCBs)	100.6	100.2	100.4	99.1	**98.9**	100.2	99.4	99.2	100.0	99.9	100.1	**102.0**
A.3.2.2 Non-Food Credit (SCBs)	101.0	100.2	100.2	99.3	**99.0**	99.5	99.4	99.1	99.8	99.8	100.1	**102.5**
A.3.3 Investments (SCBs)	100.1	100.4	100.2	101.0	**101.6**	101.0	100.8	100.5	99.0	99.1	99.1	**97.6**
Price Indices [CPI: 21 series and WPI: 9 series]												
B. CPI (Base: 2012 = 100) All Commodities	99.1	99.3	99.9	100.6	100.8	100.8	**101.0**	100.8	100.0	99.6	99.1	**99.0**
B.1 CPI - Food and beverages	98.2	98.8	100.1	101.4	**101.8**	101.6	101.7	101.4	99.9	98.9	98.2	**97.9**
B.1 .1 CPI - Cereals and products	99.7	**99.6**	99.7	99.8	100.0	100.1	**100.3**	100.3	100.2	100.2	100.2	100.0
B.1 .2 CPI - Meat and fish	99.7	100.5	**101.9**	101.9	100.8	100.0	99.4	**98.8**	98.8	99.6	99.3	99.4
B.1 .3 CPI - Egg	97.0	**96.9**	98.4	100.2	99.3	98.9	99.1	101.2	103.0	**103.8**	102.1	100.0
B.1 .4 CPI - Milk and products	**99.6**	99.9	100.0	100.2	100.2	100.2	100.1	**100.2**	100.1	99.9	99.9	99.7
B.1 .5 CPI - Fruits	102.5	102.7	102.6	**103.2**	102.2	99.3	99.0	98.8	97.7	97.0	**96.9**	98.1
B.1 .6 CPI - Vegetables	89.4	92.8	98.4	108.9	110.3	110.3	**111.3**	108.6	99.0	93.3	89.7	**88.3**
B.1 .6.1 CPI - Potato	86.9	96.1	103.2	109.5	113.0	112.3	114.3	**115.3**	102.3	86.7	**79.6**	80.6
B.1 .6.2 CPI - Onion	80.7	**79.8**	85.7	98.1	109.6	115.1	118.7	**120.1**	110.4	102.6	94.4	84.7
B.1 .6.3 CPI - Tomato	80.7	92.1	110.6	**138.4**	122.6	108.7	108.8	115.8	92.1	81.4	**72.8**	75.7
B.1 .7 CPI - Pulses and products	**98.5**	98.9	99.4	99.9	100.6	101.3	101.5	**101.7**	100.7	100.0	99.0	98.5
B.1 .8 CPI - Spices	**99.3**	99.4	99.6	99.9	100.2	100.3	100.4	100.4	**100.5**	100.3	99.9	99.6
B.1 .9 CPI - Non-alcoholic beverages	99.9	100.0	100.0	100.1	100.1	**100.1**	100.1	100.1	100.0	100.0	99.9	**99.8**
B.1 .10 CPI - Prepared meals, snacks, sweets etc.	99.8	**99.7**	99.8	99.9	100.0	100.1	100.1	**100.3**	100.2	100.1	100.1	99.9
B.2 CPI - Clothing and footwear	99.9	99.8	**99.8**	99.8	99.9	100.0	100.1	100.2	**100.3**	100.1	100.1	99.9
B.3 CPI - Housing	100.2	100.1	**99.2**	99.5	99.9	100.0	100.2	100.3	99.7	**100.4**	100.3	100.2
B.4 CPI - Miscellaneous	**99.7**	99.8	99.8	100.1	100.1	**100.3**	100.3	100.2	100.0	100.0	99.9	99.8
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	**98.8**	99.2	99.4	99.8	101.0	100.9	100.7	**101.1**	100.8	99.8	99.5	99.0
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	**98.9**	99.1	99.5	100.1	100.6	100.8	100.8	**101.0**	100.6	100.1	99.6	99.0
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	**98.9**	99.2	99.5	100.2	100.4	100.8	100.8	**100.9**	100.5	100.1	99.6	99.1
D. WPI (Base: 2011-12=100) All Commodities	99.6	99.7	100.1	100.2	100.2	100.2	**100.3**	100.1	99.9	100.0	99.9	**99.6**
D.1 WPI - PRIMARY ARTICLES	99.8	100.1	100.0	100.6	100.5	**100.6**	100.5	100.3	99.5	99.5	**99.3**	99.3
D.1.1 WPI - Food Articles	99.1	99.5	100.4	101.5	**102.0**	101.4	101.2	101.3	99.3	98.6	98.0	**97.6**
D.2 WPI - FUEL & POWER	95.2	96.8	101.7	106.0	107.5	107.3	108.1	**108.1**	97.2	94.2	**88.7**	88.9
D.3 WPI - MANUFACTURED PRODUCTS	98.4	99.1	100.4	101.7	101.9	101.8	**102.3**	102.1	99.3	98.7	97.2	**97.0**
D.3.1 WPI - Manufacture of Food Products	**98.9**	99.0	99.3	100.0	100.5	100.6	101.0	**101.0**	100.6	100.3	99.8	99.1
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	99.0	99.4	99.7	100.7	101.0	101.0	**101.2**	100.6	99.7	99.4	99.4	**98.9**
D.3.3 WPI - Manufacture of Basic Metals Alloys & Metals Products	98.9	98.0	**97.7**	98.5	99.4	99.4	99.6	101.0	101.6	**102.6**	102.3	101.0
D.3.4 WPI - Manufacture of Machinery & Machine Tools	97.6	98.7	99.0	100.5	101.4	101.4	**103.3**	102.7	101.4	99.5	97.7	**97.0**

Table 3: Average* Monthly Seasonal Factors of Selected Economic Time Series *(Concld.)*

Series/Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	2	3	4	5	6	7	8	9	10	11	12	13
Index of Industrial Production (23 series)												
E. IIP (Base 2011-12 =A51:A72 100) General Index	**96.6**	100.1	98.6	98.0	96.8	97.9	99.5	97.8	103.2	103.2	98.7	**109.6**
E.1.1 IIP - Primary goods	97.2	102.4	99.4	97.7	97.3	**94.9**	100.4	98.3	103.5	104.2	96.0	**108.8**
E.1.2 IIP - Capital goods	**89.2**	97.1	98.7	94.8	96.7	102.1	96.4	97.8	101.8	98.1	102.6	**124.3**
E.1.3 IIP - Intermediate goods	98.0	100.1	98.5	100.4	100.0	99.9	99.0	97.7	101.1	100.9	**97.4**	**107.5**
E.1.4 IIP - Infrastructure/ construction goods	99.5	104.3	101.5	99.9	97.3	96.0	97.7	**94.4**	100.4	103.6	99.1	**107.0**
E.1.5 IIP - Consumer goods	**95.4**	98.6	96.4	97.7	97.1	100.4	101.7	99.3	103.9	103.1	100.1	**106.2**
E.1.5.1 IIP - Consumer durables	**95.8**	99.2	97.2	98.8	97.9	105.5	**107.8**	99.3	97.6	98.9	96.5	104.6
E.1.5.2 IIP - Consumer non-durables	**94.9**	99.5	95.3	95.8	95.9	96.1	96.1	100.8	108.1	106.3	102.8	**108.7**
E.2.1 IIP - Mining	97.9	100.6	96.1	91.2	89.6	**88.6**	97.6	100.5	107.2	109.0	103.0	**119.4**
E.2.2 IIP - Manufacturing	**96.0**	99.7	98.4	98.7	97.4	99.0	99.7	97.9	103.1	102.6	98.8	**108.5**
E.2.2.1 IIP - Manufacture of food products	94.2	88.2	**85.8**	90.3	88.4	89.0	94.6	104.2	**122.5**	119.9	112.8	110.0
E.2.2.2 IIP - Manufacture of beverages	119.8	**130.2**	108.0	88.9	**85.8**	89.8	91.0	85.9	90.0	95.1	98.8	118.1
E.2.2.3 IIP - Manufacture of textiles	97.8	99.0	98.0	100.9	**102.4**	101.1	101.3	99.3	101.6	100.9	**96.1**	101.7
E.2.2.4 IIP - Manufacture of chemicals and chemical products	94.7	100.5	99.5	103.8	101.6	101.0	100.5	98.5	101.1	100.8	**93.8**	**104.7**
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	99.0	100.5	97.4	100.2	99.4	101.1	100.4	100.8	**93.0**	99.8	100.2	**108.3**
E.2.3 IIP - Electricity	100.1	**105.2**	100.5	102.6	102.3	99.6	102.5	94.7	97.7	99.0	**92.2**	102.5
E.3 Cement Production	103.9	103.4	100.5	96.8	**90.5**	91.8	98.6	92.5	102.0	105.9	100.9	**112.9**
E.4 Steel Production	98.5	104.2	99.3	100.1	98.8	96.6	98.9	**95.7**	100.4	103.7	98.1	**105.7**
E.5 Coal Production	91.8	94.1	89.7	83.0	**81.4**	81.4	95.3	103.0	113.3	117.0	112.1	**138.2**
E.6 Crude Oil Production	98.9	101.8	99.3	101.7	101.4	97.9	101.9	99.0	102.0	101.3	**92.2**	**102.7**
E.7 Petroleum Refinery Production	95.8	100.9	99.3	101.3	100.5	95.5	102.2	98.6	103.2	102.8	**95.2**	**104.6**
E.8 Fertiliser Production	**82.2**	95.2	99.4	104.2	106.1	104.5	**107.3**	104.1	105.5	102.9	93.7	95.3
E.9 Natural Gas Production	97.4	101.4	98.6	101.9	101.5	98.6	102.4	99.8	**102.6**	101.9	**91.8**	102.1
Service Sector Indicators (6 series)												
F.1 Production of Commercial Motor Vehicles	95.6	96.5	**92.1**	95.9	96.8	98.3	101.5	99.8	92.7	106.7	107.2	**116.7**
F.2 Cargo handled at Major Ports	100.0	103.9	97.3	99.5	98.3	**93.1**	98.5	98.7	102.5	104.5	94.8	**108.5**
F.3 Railway Freight Traffic	97.3	100.9	97.1	98.1	95.2	**93.5**	98.4	98.4	103.5	106.5	97.7	**113.2**
F.4 Sales of Commercial Motor Vehicles	**86.6**	91.1	96.3	93.6	95.4	106.7	99.4	94.4	97.9	104.5	104.6	**129.9**
F.5 Passenger flown (Km) - Domestic	100.7	**110.7**	102.4	96.9	94.7	**90.6**	99.1	100.2	107.3	102.9	96.0	99.1
F.6 Passenger flown (Km) - International	96.4	101.2	99.6	103.4	102.8	**93.0**	93.5	95.7	107.1	**110.9**	95.0	102.5
Merchandise Trade (3 series)												
G.1 Exports	97.2	101.2	99.0	98.6	97.3	102.4	98.8	**95.0**	102.3	98.0	96.6	**113.8**
G.2 Imports	98.0	103.3	99.3	102.3	98.7	100.9	**104.6**	99.3	100.9	97.9	**92.9**	103.0
G.3 Non-Oil Non-Gold Imports	95.7	99.3	101.3	103.4	99.2	102.0	102.6	101.7	**104.7**	99.2	**91.9**	98.9
Alternate modes of Payment (4 series)												
H.1 RTGS	97.1	95.2	106.6	97.7	92.0	104.2	98.6	91.7	102.2	99.0	**89.5**	**126.4**
H.2 Paper Clearing	105.1	99.4	96.5	100.0	95.6	**93.2**	104.5	95.9	99.6	99.1	94.1	**116.5**
H.3 REC	104.1	97.0	98.7	101.8	96.3	97.0	101.0	**90.5**	101.9	99.1	92.2	**121.6**
H.4 Cards	99.8	101.8	98.4	99.6	99.5	95.7	**105.6**	100.2	103.4	101.6	**92.5**	101.5

***:** Average of last ten years' monthly seasonal factors, in general. Here, the average monthly seasonal factors have been computed on the basis of last 10 years (i.e., April 2010 to March 2020)

Note:

1. *Seasonal factors:* Deviation from 100 indicates presence of seasonality. For instance, seasonal factor of IIP-Manufacturing increases during March(108.5) and decreases during April (96.0) indicating that manufacturing production rises during March and declines during February due to seasonal fluctuations.
2. For all CPI indices, the average monthly seasonal factors have been computed on the basis of last 9 years (i.e., January 2011 to March 2019).
3. The average linking factor has been used to compute the back series of IIP (Overall, mining, manufacturing and electricity) and WPI series. The average linking factor was calculated based on IIP/ WPI series for the common period from Apr 2012 to Mar 2020. The back series of IIP, however, was not compiled at further disaggregated level (use based and NIC-2 digit level) due to major changes in coverage.
4. Numbers marked in **'bold'** are peaks and troughs of respective series.

Table 4: Range (Difference Between Peak and Trough) of Seasonal Factors *(Contd.)*

Series \ Year	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Range of Average SF
1	2	3	4	5	6	7	8	9	10	11	12
Monetary and Banking Indicators(14 series)											
A.1.1 Broad Money (M3)	2.3	2.1	1.9	1.8	1.7	1.8	2.0	2.1	2.1	2.1	2.0
A.1.1.1 Net Bank Credit to Government	4.6	4.1	3.8	3.6	3.5	3.6	3.7	3.9	4.0	3.9	3.8
A.1.1.2 Bank Credit to Commercial Sector	3.7	3.3	3.0	2.8	2.7	2.8	3.0	3.1	3.2	3.2	3.1
A.1.2 Narrow Money (M1)	4.7	4.1	4.0	4.2	4.4	5.3	6.1	7.0	7.8	8.2	5.0
A.1.3 Reserve Money (RM)	7.1	6.8	6.4	6.1	5.7	5.4	5.2	4.9	4.8	4.7	6.0
A.1.3.1 Currency in Circulation	5.9	5.6	5.2	5.0	4.8	4.7	4.7	4.7	4.8	4.9	5.2
A.2.1 Aggregate Deposits (SCBs)	2.3	2.0	1.7	1.6	1.5	1.4	1.7	1.9	2.0	2.0	1.5
A.2.1.1 Demand Deposits (SCBs)	11.0	8.5	6.6	6.0	6.9	9.5	11.9	13.9	14.8	15.1	9.3
A.2.1.2 Time Deposits (SCBs)	2.0	1.9	1.6	1.4	1.1	1.0	0.9	0.8	0.8	0.8	1.3
A.3.1 Cash in Hand and Balances with RBI (SCBs)	10.7	9.1	7.0	5.4	4.5	4.9	5.4	5.8	6.0	6.1	5.8
A.3.2 Bank Credit (SCBs)	4.0	3.6	3.2	3.0	2.9	2.9	3.0	3.1	3.2	3.2	3.2
A.3.2.1 Loans, Cash, Credits and Overdrafts (SCBs)	3.7	3.2	2.7	2.4	2.4	2.7	3.0	3.2	3.4	3.5	3.1
A.3.2.2 Non-Food Credit (SCBs)	4.0	3.6	3.1	2.8	2.7	3.1	3.6	3.9	4.0	3.9	3.5
A.3.3 Investments (SCBs)	4.8	4.6	4.4	4.1	3.7	3.5	3.5	3.4	3.4	3.3	4.0
Price Indices [CPI: 21 series and WPI: 9 series]											
B. CPI (Base: 2012 = 100) All Commodities		2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.7	1.7	2.0
B.1 CPI - Food and beverages		4.2	4.2	4.1	4.0	3.9	3.8	3.6	3.6	3.7	3.8
B.1 .1 CPI - Cereals and products		1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.7
B.1 .2 CPI - Meat and fish		3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.1
B.1 .3 CPI - Egg		8.0	7.8	7.5	7.0	6.5	6.2	5.9	5.9	5.9	6.9
B.1 .4 CPI - Milk and products		0.9	0.8	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.6
B.1 .5 CPI - Fruits		6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.3
B.1 .6 CPI - Vegetables		24.5	24.5	24.1	23.8	22.8	22.1	21.3	21.7	22.3	23.0
B.1 .6.1 CPI - Potato		38.0	37.9	37.4	36.9	36.3	35.1	33.1	31.8	30.8	35.6
B.1 .6.2 CPI - Onion		45.0	44.7	43.3	42.0	38.8	37.4	37.0	38.0	39.1	40.4
B.1 .6.3 CPI - Tomato		63.1	63.8	65.3	66.1	66.3	66.4	66.6	66.9	67.5	65.6
B.1 .7 CPI - Pulses and products		3.0	3.1	3.2	3.4	3.5	3.4	3.3	3.2	2.5	3.2
B.1 .8 CPI - Spices		1.8	1.7	1.5	1.2	1.1	1.1	1.1	1.0	0.8	1.3
B.1 .9 CPI - Non-alcoholic beverages		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
B.1 .10 CPI - Prepared meals, snacks, sweets etc.		0.8	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.6
B.2 CPI - Clothing and footwear		0.7	0.7	0.6	0.5	0.5	0.4	0.3	0.3	0.3	0.5
B.3 CPI - Housing		1.4	1.3	1.2	1.1	1.1	1.2	1.2	1.2	1.3	1.2
B.4 CPI - Miscellaneous		0.8	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.3	0.6
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	2.4	2.3	2.3	2.3	2.4	2.5	2.5	2.4	2.4	2.3	2.2
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	2.1	2.1	2.2	2.1	2.1	2.1	2.0	1.9	1.7	1.6	2.0
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	2.1	2.1	2.2	2.1	2.0	2.0	2.0	1.8	1.7	1.6	2.0
D. WPI (Base: 2011-12=100) All Commodities	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.8	0.8	0.8	0.7
D.1 WPI - PRIMARY ARTICLES	1.4	1.3	1.5	1.6	1.7	1.6	1.5	1.4	1.4	1.4	1.3
D.1.1 WPI - Food Articles	3.6	3.9	4.3	4.8	5.1	5.1	4.9	4.6	4.4	4.5	4.4
D.2 WPI - FUEL & POWER	17.3	17.3	18.2	19.8	21.5	22.0	22.2	22.7	23.5	23.3	19.4
D.3 WPI - MANUFACTURED PRODUCTS	5.2	5.2	5.2	5.3	5.6	5.6	5.5	5.5	5.6	5.6	5.3
D.3.1 WPI - Manufacture of Food Products	2.2	2.2	2.3	2.4	2.4	2.2	2.2	2.1	2.0	1.9	2.2
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	2.4	2.9	3.2	3.1	2.9	2.4	1.9	1.5	1.2	1.1	2.3
D.3.3 WPI - Manufacture of Basic Metals Alloys & Metals Products	4.5	4.4	4.5	4.8	5.2	5.3	5.4	5.3	5.3	5.3	4.9
D.3.4 WPI - Manufacture of Machinery & Machine Tools	6.3	6.2	6.5	6.8	7.3	7.2	6.9	6.1	5.4	4.8	6.3

Table 4: Range (Difference Between Peak and Trough) of Seasonal Factors *(Concld.)*

Series \ Year	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Range of Average SF
1	2	3	4	5	6	7	8	9	10	11	12
Index of Industrial Production (23 series)											
E. IIP (Base 2011-12 = 100) General Index	14.4	14.0	13.4	12.7	12.7	12.9	13.0	13.4	13.5	13.5	13.0
E.1.1 IIP - Primary goods			13.5	13.7	13.8	13.9	14.0	14.1	14.3	14.5	13.9
E.1.2 IIP - Capital goods			39.2	38.4	36.8	35.2	33.2	32.0	31.0	30.8	35.1
E.1.3 IIP - Intermediate goods			10.2	10.2	10.2	10.1	10.2	10.4	10.7	10.8	10.1
E.1.4 IIP - Infrastructure/ construction goods			11.6	12.0	12.3	12.7	13.1	13.6	13.8	14.2	12.7
E.1.5 IIP - Consumer goods			12.0	11.7	11.2	10.7	10.1	9.9	10.1	10.6	10.8
E.1.5.1 IIP - Consumer durables			13.9	13.8	13.3	12.5	11.3	10.3	10.0	9.6	11.9
E.1.5.2 IIP - Consumer non-durables			15.4	15.1	14.3	14.0	13.7	13.9	14.6	15.3	13.8
E.2.1 IIP - Mining	28.0	29.0	29.7	30.5	31.2	32.1	32.9	34.2	35.1	35.6	30.8
E.2.2 IIP - Manufacturing	12.6	12.2	12.0	12.3	12.4	12.6	12.7	13.1	13.2	13.4	12.5
E.2.2.1 IIP - Manufacture of food products			36.3	36.3	35.9	35.9	36.6	37.6	38.5	39.3	36.7
E.2.2.2 IIP - Manufacture of beverages			55.3	54.4	51.3	46.0	39.7	35.3	32.9	33.4	44.5
E.2.2.3 IIP - Manufacture of textiles			8.9	8.5	7.5	6.4	5.2	5.2	5.5	5.7	6.4
E.2.2.4 IIP - Manufacture of chemicals and chemical products			11.1	10.8	10.6	10.9	11.7	12.3	12.6	12.7	10.9
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers			13.5	13.9	14.6	15.6	16.2	16.6	16.5	16.4	15.3
E.2.3 IIP - Electricity	11.3	10.7	11.2	12.0	13.1	14.2	15.5	16.7	17.9	18.4	13.0
E.3 Cement Production	23.3	23.9	23.6	23.3	22.1	21.4	20.9	21.1	21.5	22.0	22.4
E.4 Steel Production	10.3	10.0	10.1	10.1	9.8	9.6	10.0	10.6	11.2	11.6	10.0
E.5 Coal Production	54.6	55.2	55.1	55.0	55.4	56.6	59.1	62.4	65.3	67.1	56.8
E.6 Crude Oil Production	10.2	10.4	10.4	10.4	10.4	10.4	10.5	10.6	10.7	10.8	10.4
E.7 Petroleum Refinery Production	9.3	9.9	10.4	10.6	10.2	9.7	9.5	9.5	9.1	8.8	9.5
E.8 Fertiliser Production	26.7	27.0	27.4	27.3	26.4	24.6	22.8	21.9	21.4	21.9	25.1
E.9 Natural Gas Production	11.1	10.9	10.7	10.9	10.9	11.0	10.9	10.6	10.5	10.7	10.7
Service Sector Indicators (6 series)											
F.1 Production of Commercial Motor Vehicles	28.6	28.7	25.6	24.0	24.1	25.8	25.9	26.2	26.1	27.5	24.7
F.2 Cargo handled at Major Ports	15.9	15.9	14.8	14.6	14.8	15.3	15.6	15.7	15.5	15.4	15.4
F.3 Railway Freight Traffic	20.6	20.6	19.3	18.8	18.3	18.4	19.1	20.3	21.3	22.0	19.7
F.4 Sales of Commercial Motor Vehicles	41.8	41.7	40.7	41.3	41.9	43.2	44.7	46.9	48.5	49.9	43.3
F.5 Passenger flown (Km) - Domestic	25.8	25.8	24.1	22.1	19.7	17.3	15.1	13.6	12.7	12.4	20.1
F.6 Passenger flown (Km) - International	15.2	16.1	16.9	18.1	18.8	19.5	20.0	20.8	21.3	22.1	17.9
Merchandise Trade (3 series)											
G.1 Exports	21.9	21.9	20.9	19.6	17.8	16.4	15.6	16.5	17.3	17.6	18.8
G.2 Imports	14.2	12.8	11.7	11.4	12.4	12.7	12.3	11.4	10.8	10.7	11.8
G.3 Non-Oil Non-Gold Imports	12.7	11.6	12.1	12.3	12.7	13.3	13.9	14.3	14.6	14.6	12.8
Alternate modes of Payment (4 series)											
RTGS	26.9	34.8	39.9	42.6	44.5	44.5	42.5	40.2	38.4	36.9	36.8
Paper Clearing	25.2	25.7	25.3	24.3	22.9	21.9	21.3	21.3	21.5	21.8	23.4
REC	23.3	29.1	33.7	35.9	36.5	36.1	34.8	33.2	31.7	30.6	31.1
Cards	14.3	14.0	13.3	12.6	12.5	12.6	12.8	13.0	12.9	12.9	13.2

Note:

1. Seasonal adjustment for these series is based on 10 years' data depending on availability. Guidelines of both the Office of National Statistics (ONS), UK, and the US Census Bureau, however, suggest using more than ten years' data for estimating stable monthly seasonal factors.
2. Average seasonal factor range is the range of average seasonal factors for last ten years; range is calculated as the difference between maximum and minimum of monthly seasonal factors.

Table 5: Change in Seasonal Peaks and Troughs in 2019-20 *vis-à-vis* previous 5-years (2014-15 to 2018-19) *(Contd.)*

Series	Based on SF of 2014-15 to 2018-19				Based on SF of 2019-20			
	Peak Month	Peak Value	Trough Month	Trough Value	Peak Month	Peak Value	Trough Month	Trough Value
Monetary and Banking Indicators(14 series)								
A.1.1 Broad Money (M3)	Apr	101.1	Dec	99.2	Apr	101.1	Dec	99.0
A.1.1.1 Net Bank Credit to Government	Jul	101.7	Mar	98.0	Aug	101.7	Mar	97.7
A.1.1.2 Bank Credit to Commercial Sector	Mar	102.0	Aug	99.1	Mar	102.2	Aug	99.0
A.1.2 Narrow Money (M1)	Mar	104.3	Jan	98.3	Mar	105.8	Dec	97.6
A.1.3 Reserve Money (RM)	Mar	103.6	Oct	98.4	Mar	103.1	Nov	98.4
A.1.3.1 Currency in Circulation	May	102.8	Sep	98.0	May	102.8	Sep	97.8
A.2.1 Aggregate Deposits (SCBs)	Mar	101.0	Feb	99.3	Mar	101.2	Feb	99.3
A.2.1.1 Demand Deposits (SCBs)	Mar	108.3	Jan	96.9	Mar	111.4	Jan	96.3
A.2.1.2 Time Deposits (SCBs)	Apr	100.5	Feb	99.6	Apr	100.3	Dec	99.6
A.3.1 Cash in Hand and Balances with RBI (SCBs)	Dec	102.3	Jan	97.6	Mar	104.1	Jul	98.0
A.3.2 Bank Credit (SCBs)	Mar	102.1	Aug	99.1	Mar	102.2	Aug	99.0
A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs)	Mar	101.9	Aug	99.0	Mar	102.3	Aug	98.8
A.3.2.2 Non-Food Credit (SCBs)	Mar	102.4	Aug	99.0	Mar	102.8	Aug	98.9
A.3.3 Investments (SCBs)	Aug	101.2	Mar	97.7	Aug	101.3	Mar	98.0
Price Indices [CPI: 21 series and WPI: 9 series]								
B. CPI (Base: 2012 = 100) All Commodities	Oct	100.9	Mar	99.1	Nov	100.8	Mar	99.1
B.1 CPI - Food and beverages	Aug	101.7	Mar	98.0	Nov	101.7	Mar	98.0
B.1 .1 CPI - Cereals and products	Nov	100.3	May	99.6	Nov	100.3	May	99.7
B.1 .2 CPI - Meat and fish	Jul	102.0	Nov	98.9	Jun	102.1	Oct	98.8
B.1 .3 CPI - Egg	Jan	103.3	May	97.0	Jan	103.1	May	97.1
B.1 .4 CPI - Milk and products	Nov	100.2	Apr	99.7	Oct	100.1	Apr	99.8
B.1 .5 CPI - Fruits	Jul	103.0	Feb	96.7	Jul	102.9	Jan	96.4
B.1 .6 CPI - Vegetables	Oct	110.7	Mar	88.5	Nov	111.3	Mar	89.0
B.1 .6.1 CPI - Potato	Nov	115.2	Feb	80.5	Nov	113.6	Feb	82.7
B.1 .6.2 CPI - Onion	Nov	119.5	May	81.3	Nov	122.9	May	83.8
B.1 .6.3 CPI - Tomato	Jul	139.4	Feb	73.0	Jul	140.7	Feb	73.2
B.1 .7 CPI - Pulses and products	Nov	101.7	Apr	98.4	Sep	101.0	Apr	98.6
B.1 .8 CPI - Spices	Dec	100.5	Apr	99.4	Dec	100.5	Apr	99.6
B.1 .9 CPI - Non-alcoholic beverages	Sep	100.1	Mar	99.8	Aug	100.1	Mar	99.9
B.1 .10 CPI - Prepared meals, snacks, sweets etc.	Nov	100.2	May	99.8	Nov	100.2	Jun	99.9
B.2 CPI - Clothing and footwear	Dec	100.2	May	99.8	Dec	100.2	Mar	99.9
B.3 CPI - Housing	Nov	100.4	Jun	99.2	Nov	100.4	Jun	99.1
B.4 CPI - Miscellaneous	Sep	100.2	Apr	99.8	Nov	100.2	Jun	99.8
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	Aug	101.2	Mar	98.8	Aug	101.2	Mar	98.9
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	Nov	100.9	Apr	98.9	Dec	100.7	Apr	99.1
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	Nov	100.9	Apr	98.9	Dec	100.7	Apr	99.1
D. WPI (Base: 2011-12=100) All Commodities	Aug	100.3	Mar	99.7	Aug	100.4	Feb	99.6
D.1 WPI - PRIMARY ARTICLES	Oct	100.6	Mar	99.2	Nov	100.7	Mar	99.3
D.1.1 WPI - Food Articles	Aug	102.1	Mar	97.4	Nov	101.9	Mar	97.4
D.2 WPI - FUEL & POWER	Oct	109.2	Mar	87.6	Nov	110.6	Mar	87.3
D.3 WPI - MANUFACTURED PRODUCTS	Oct	102.2	Mar	96.8	Nov	102.5	Mar	96.9
D.3.1 WPI - Manufacture of Food Products	Nov	100.9	Apr	98.8	Nov	100.8	Apr	98.9
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	Sep	101.0	Mar	99.0	Oct	100.6	Mar	99.5
D.3.3 WPI - Manufacture of Basic Metals Alloys & Metals Products	Jan	102.7	Jun	97.4	Feb	102.6	Jun	97.4
D.3.4 WPI - Manufacture of Machinery & Machine Tools	Oct	103.4	Apr	97.1	Nov	102.4	Apr	97.6

Table 5: Change in Seasonal Peaks and Troughs in 2019-20 *vis-à-vis* previous 5-years (2014-15 to 2018-19) *(Concld.)*

Series	Based on SF of 2014-15 to 2018-19				Based on SF of 2019-20			
	Peak Month	Peak Value	Trough Month	Trough Value	Peak Month	Peak Value	Trough Month	Trough Value
Industrial Production (23 series)								
E. IIP (Base 2011-12 =A51:A72 100) General Index	Mar	109.3	Apr	96.2	Mar	109.7	Apr	96.2
E.1.1 IIP - Primary goods	Mar	108.9	Sep	94.9	Mar	109.3	Sep	94.8
E.1.2 IIP - Capital goods	Mar	123.1	Apr	89.5	Mar	121.5	Apr	90.7
E.1.3 IIP - Intermediate goods	Mar	107.8	Feb	97.7	Mar	108.3	Apr	97.5
E.1.4 IIP - Infrastructure/ construction goods	Mar	107.5	Nov	94.5	Mar	108.9	Sep	94.7
E.1.5 IIP - Consumer goods	Mar	105.7	Apr	95.4	Mar	105.5	Jun	94.9
E.1.5.1 IIP - Consumer durables	Oct	107.3	Apr	96.1	Oct	105.8	Feb	96.2
E.1.5.2 IIP - Consumer non-durables	Mar	108.1	Apr	94.4	Dec	107.9	Jun	92.7
E.2.1 IIP - Mining	Mar	121.0	Sep	88.2	Mar	121.8	Aug	86.2
E.2.2 IIP - Manufacturing	Mar	108.3	Apr	95.5	Mar	108.7	Apr	95.3
E.2.2.1 IIP - Manufacture of food products	Dec	122.5	Jun	85.6	Dec	124.0	Jun	84.7
E.2.2.2 IIP - Manufacture of beverages	May	127.7	Nov	87.0	May	122.3	Oct	88.9
E.2.2.3 IIP - Manufacture of textiles	Aug	101.9	Feb	96.4	Dec	102.8	Feb	97.1
E.2.2.4 IIP - Manufacture of chemicals and chemical products	Mar	105.4	Feb	93.9	Mar	107.0	Feb	94.4
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	Mar	108.5	Dec	92.6	Mar	108.9	Dec	92.5
E.2.3 IIP - Electricity	May	106.2	Feb	90.8	May	108.0	Feb	89.6
E.3 Cement Production	Mar	111.9	Aug	90.5	Mar	112.1	Aug	90.1
E.4 Steel Production	Mar	106.7	Nov	96.6	Mar	108.5	Sep	96.9
E.5 Coal Production	Mar	140.1	Aug	80.3	Mar	144.4	Aug	77.3
E.6 Crude Oil Production	Mar	102.7	Feb	92.2	Mar	103.0	Feb	92.1
E.7 Petroleum Refinery Production	Mar	104.4	Feb	94.9	Mar	103.6	Feb	94.8
E.8 Fertiliser Production	Oct	106.3	Apr	83.0	Dec	105.1	Apr	83.3
E.9 Natural Gas Production	Oct	102.7	Feb	92.0	Dec	103.2	Feb	92.6
Service Sector Indicators (6 series)								
F.1 Production of Commercial Motor Vehicles	Mar	116.5	Dec	90.9	Mar	118.5	Aug	91.0
F.2 Cargo handled at Major Ports	Mar	108.9	Sep	93.5	Mar	108.8	Sep	93.4
F.3 Railway Freight Traffic	Mar	113.3	Sep	93.8	Mar	114.7	Sep	92.7
F.4 Sales of Commercial Motor Vehicles	Mar	131.6	Apr	86.6	Mar	134.9	Apr	85.0
F.5 Passenger flown (Km) - Domestic	May	108.7	Sep	93.0	May	106.7	Sep	94.3
F.6 Passenger flown (Km) - International	Jan	112.6	Sep	92.6	Jan	114.4	Sep	92.4
Merchandise Trade (3 series)								
G.1 Exports	Mar	112.8	Nov	96.4	Mar	113.4	Jul	95.8
G.2 Imports	Mar	104.8	Feb	92.9	Mar	103.7	Feb	92.9
G.3 Non-Oil Non-Gold Imports	Dec	104.9	Feb	91.1	Dec	104.7	Feb	90.1
Alternate modes of Payment (4 series)								
H.1 RTGS	Mar	129.9	Feb	87.9	Mar	125.4	Feb	88.4
H.2 Paper Clearing	Mar	115.4	Sep	93.6	Mar	115.0	Sep	93.3
H.3 REC	Mar	125.8	Nov	91.4	Mar	123.9	Nov	93.3
H.4 Cards	Oct	105.4	Feb	92.6	Oct	106.2	Feb	93.4

Table 6: Change in Seasonal Variation in 2019-20 *vis-à-vis* previous 5-years (2014-15 to 2018-19)

Name of Variable	2019-20	Average Range*	Change
1	2	3	4
Monetary and Banking Indicators (14 serties)			
A.1.1 Broad Money (M3)	2.1	2.0	0.2
A.1.1.1 Net Bank Credit to Government	3.9	3.7	0.3
A.1.1.2 Bank Credit to Commercial Sector	3.2	2.9	0.2
A.1.2 Narrow Money (M1)	8.2	6.0	2.3
A.1.3 Reserve Money (RM)	4.7	5.2	-0.5
A.1.3.1 Currency in Circulation	4.9	4.7	0.2
A.2.1 Aggregate Deposits (SCBs)	2.0	1.6	0.3
A.2.1.1 Demand Deposits (SCBs)	15.1	11.4	3.8
A.2.1.2 Time Deposits (SCBs)	0.8	0.9	-0.2
A.3.1 Cash in Hand and Balances with RBI (SCBs)	6.1	4.7	1.3
A.3.2 Bank Credit (SCBs)	3.2	3.0	0.2
A.3.2.1 Loans, Cash, Credits and Overdrafts (SCBs)	3.5	2.9	0.5
A.3.2.2 Non-Food Credit (SCBs)	3.9	3.4	0.5
A.3.3 Investments (SCBs)	3.3	3.5	-0.2
Price Indices[CPI: 21 series and WPI: 9 series]			
B. CPI (Base: 2012 = 100) All Commodities	1.7	1.8	-0.1
B.1 CPI - Food and beverages	3.7	3.8	-0.1
B.1 .1 CPI - Cereals and products	0.6	0.7	-0.1
B.1 .2 CPI - Meat and fish	3.3	3.1	0.2
B.1 .3 CPI - Egg	5.9	6.3	-0.3
B.1 .4 CPI - Milk and products	0.3	0.5	-0.1
B.1 .5 CPI - Fruits	6.5	6.3	0.3
B.1 .6 CPI - Vegetables	22.3	22.2	0.1
B.1 .6.1 CPI - Potato	30.8	34.7	-3.8
B.1 .6.2 CPI - Onion	39.1	38.2	0.9
B.1 .6.3 CPI - Tomato	67.5	66.5	1.0
B.1 .7 CPI - Pulses and products	2.5	3.3	-0.9
B.1 .8 CPI - Spices	0.8	1.1	-0.3
B.1 .9 CPI - Non-alcoholic beverages	0.2	0.3	-0.1
B.1 .10 CPI - Prepared meals, snacks, sweets etc.	0.4	0.5	-0.1
B.2 CPI - Clothing and footwear	0.3	0.4	-0.1
B.3 CPI - Housing	1.3	1.2	0.1
B.4 CPI - Miscellaneous	0.3	0.4	-0.1
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	2.3	2.4	-0.1
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	1.6	2.0	-0.3
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	1.6	1.9	-0.3
D. WPI (Base: 2011-12=100) All Commodities	0.8	0.7	0.2
D.1 WPI - PRIMARY ARTICLES	1.4	1.4	0.0
D.1.1 WPI - Food Articles	4.5	4.8	-0.3
D.2 WPI - FUEL & POWER	23.3	21.7	1.6
D.3 WPI - MANUFACTURED PRODUCTS	5.6	5.4	0.2
D.3.1 WPI - Manufacture of Food Products	1.9	2.2	-0.2
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	1.1	2.0	-0.9
D.3.3 WPI - Manufacture of Basic Metals Alloys & Metals Products	5.3	5.3	0.0
D.3.4 WPI - Manufacture of Machinery & Machine Tools	4.8	6.3	-1.5
Industrial Production (23 series)			
E. IIP (Base 2011-12 = 100) General Index	13.5	13.1	0.5
E.1.1 IIP - Primary goods	14.5	14.0	0.5
E.1.2 IIP - Capital goods	30.8	33.6	-2.8
E.1.3 IIP - Intermediate goods	10.8	10.1	0.7
E.1.4 IIP - Infrastructure/ construction goods	14.2	13.0	1.2
E.1.5 IIP - Consumer goods	10.6	10.4	0.2
E.1.5.1 IIP - Consumer durables	9.6	11.2	-1.6
E.1.5.2 IIP - Consumer non-durables	15.3	13.7	1.6
E.2.1 IIP - Mining	35.6	32.9	2.7
E.2.2 IIP - Manufacturing	13.4	12.8	0.6
E.2.2.1 IIP - Manufacture of food products	39.3	36.9	2.4
E.2.2.2 IIP - Manufacture of beverages	33.4	40.7	-7.3
E.2.2.3 IIP - Manufacture of textiles	5.7	5.5	0.2
E.2.2.4 IIP - Manufacture of chemicals and chemical products	12.7	11.5	1.2
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	16.4	15.9	0.5
E.2.3 IIP - Electricity	18.4	15.5	2.9
E.3 Cement Production	22.0	21.4	0.6
E.4 Steel Production	11.6	10.1	1.6
E.5 Coal Production	67.1	59.8	7.4
E.6 Crude Oil Production	10.8	10.5	0.3
E.7 Petroleum Refinery Production	8.8	9.5	-0.6
E.8 Fertiliser Production	21.9	23.3	-1.5
E.9 Natural Gas Production	10.7	10.7	-0.1
Service sector Indicators (6 series)			
F.1 Production of Commercial Motor Vehicles	27.5	25.6	2.0
F.2 Cargo handled at Major Ports	15.4	15.4	0.0
F.3 Railway Freight Traffic	22.0	19.5	2.5
F.4 Sales of Commercial Motor Vehicles	49.9	45.0	4.9
F.5 Passenger flown (Km) - Domestic	12.4	15.7	-3.3
F.6 Passenger flown (Km) - International	22.1	20.1	2.0
Merchandise Trade (3 series)			
G.1 Exports	17.6	16.4	1.2
G.2 Imports	10.7	11.9	-1.2
G.3 Non-Oil Non-Gold Imports	14.6	13.8	0.8
Alternate modes of Payment (4 series)			
H.1 RTGS	36.9	42.0	-5.0
H.2 Paper Clearing	21.8	21.8	0.0
H.3 REC	30.6	34.5	-3.9
H.4 Cards	12.9	12.8	0.1

*Average Range of Monthly Seasonal Factors of 5 year ending 2018-19.

Table 7: List of Top-Twenty and Bottom-Twenty Series Based on Average Range of Monthly Seasonal Factors During Last Five Years (2015-16 to 2019-20) and Corresponding Peak and Trough Months

Name of Top-Twenty Series	Average Range	Peak Month	Trough Month
1	2	3	4
B.1 .6.3 CPI - Tomato	65.6	Jul	Feb
E.5 Coal Production	56.8	Mar	Aug
E.2.2.2 IIP - Manufacture of beverages	44.5	May	Aug
F.4 Sales of Commercial Motor Vehicles	43.3	Mar	Apr
B.1 .6.2 CPI - Onion	40.4	Nov	May
H.1 RTGS	36.8	Mar	Feb
E.2.2.1 IIP - Manufacture of food products	36.7	Dec	Jun
B.1 .6.1 CPI - Potato	35.6	Nov	Feb
E.1.2 IIP - Capital goods	35.1	Mar	Apr
H.3 REC	31.1	Mar	Nov
E.2.1 IIP - Mining	30.8	Mar	Sep
E.8 Fertiliser Production	25.1	Oct	Apr
F.1 Production of Commercial Motor Vehicles	24.7	Mar	Jun
H.2 Paper Clearing	23.4	Mar	Sep
B.1 .6 CPI - Vegetables	23.0	Oct	Mar
E.3 Cement Production	22.4	Mar	Aug
F.5 Passenger flown (Km) - Domestic	20.1	May	Sep
F.3 Railway Freight Traffic	19.7	Mar	Sep
D.2 WPI - FUEL & POWER	19.4	Nov	Feb
G.1 Exports	18.8	Mar	Nov
B.1 .9 CPI - Non-alcoholic beverages	0.3	Sep	Mar
B.2 CPI - Clothing and footwear	0.5	Dec	Jun
B.1 .10 CPI - Prepared meals, snacks, sweets etc.	0.6	Nov	May
B.4 CPI - Miscellaneous	0.6	Sep	Apr
B.1 .4 CPI - Milk and products	0.6	Nov	Apr
B.1 .1 CPI - Cereals and products	0.7	Oct	May
D. WPI (Base: 2011-12=100) All Commodities	0.7	Oct	Mar
B.3 CPI - Housing	1.2	Jan	Jun
B.1 .8 CPI - Spices	1.3	Dec	Apr
A.2.1.2 Time Deposits (SCBs)	1.3	Apr	Dec
B.1 WPI - Primary Articles	1.3	Sep	Feb
A.2.1 Aggregate Deposits (SCBs)	1.5	Apr	Dec
B. CPI (Base: 2012 = 100) All Commodities	2.0	Oct	Mar
C.3 Consumer Price Index for Rural Labourers (Base: 198687=100)	2.0	Nov	Apr
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	2.0	Nov	Apr
A.1.1 Broad Money (M3)	2.0	Apr	Dec
D.3.1 WPI - Manufacture of Food Products	2.2	Nov	Apr
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	2.2	Nov	Apr
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	2.3	Oct	Mar
A.3.3.1 Loans, Cash, Credits and Overdrafts (SCBs)	3.1	Mar	Aug

CURRENT STATISTICS

Contents

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

No. 1: Select Economic Indicators

Item	2019-20	2019-20		2020-21	
		Q1	Q2	Q1	Q2
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	3.9	4.8	4.3	-22.8	-7.0
1.1.1 Agriculture	4.0	3.0	3.5	3.4	3.4
1.1.2 Industry	0.8	3.8	-0.2	-33.8	0.1
1.1.3 Services	5.0	5.5	6.1	-24.3	-11.1
1.1a Final Consumption Expenditure	6.3	5.6	7.8	-19.2	-13.3
1.1b Gross Fixed Capital Formation	-2.8	4.6	-3.9	-47.1	-7.3
	2019-20	**2019**		**2020**	
		Sep.	**Oct.**	**Sep.**	**Oct.**
	1	2	3	4	5
1.2 Index of Industrial Production	-0.8	-4.6	-6.6	0.2	-
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	7.9	9.4	10.3	10.5	11.1
2.1.2 Credit	6.1	8.8	8.9	5.1	5.4
2.1.2.1 Non-food Credit	6.1	8.7	8.8	5.1	5.5
2.1.3 Investment in Govt. Securities	10.6	7.1	7.0	20.3	21.5
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	9.4	12.0	15.3	14.4	12.8
2.2.2 Broad Money (M3)	8.9	9.6	10.6	12.2	11.6
3 Ratios (%)					
3.1 Cash Reserve Ratio	3.00	4.00	4.00	3.00	3.00
3.2 Statutory Liquidity Ratio	18.25	18.75	18.50	18.00	18.00
3.3 Cash-Deposit Ratio	4.6	4.8	4.9	3.6	3.8
3.4 Credit-Deposit Ratio	76.4	75.7	75.8	72.0	71.9
3.5 Incremental Credit-Deposit Ratio	60.3	-0.9	17.0	-14.3	0.5
3.6 Investment-Deposit Ratio	27.6	28.6	28.3	31.1	31.0
3.7 Incremental Investment-Deposit Ratio	36.2	93.3	73.3	100.6	85.4
4 Interest Rates (%)					
4.1 Policy Repo Rate	4.40	5.40	5.15	4.00	4.00
4.2 Reverse Repo Rate	4.00	5.15	4.90	3.35	3.35
4.3 Marginal Standing Facility (MSF) Rate	4.65	5.65	5.40	4.25	4.25
4.4 Bank Rate	4.65	5.65	5.40	4.25	4.25
4.5 Base Rate	8.15/9.40	8.95/9.40	8.95/9.40	7.40/9.00	7.40/8.80
4.6 MCLR (Overnight)	7.40/7.90	7.80/8.30	7.70/8.20	6.65/7.15	6.65/7.10
4.7 Term Deposit Rate >1 Year	5.90/6.40	6.25/7.00	6.25/6.85	4.90/5.50	4.90/5.50
4.8 Savings Deposit Rate	3.00/3.50	3.25/3.50	3.25/3.50	2.70/3.00	2.70/3.00
4.9 Call Money Rate (Weighted Average)	5.05	5.31	5.07	3.41	3.19
4.10 91-Day Treasury Bill (Primary) Yield	4.36	5.41	5.04	3.36	3.20
4.11 182-Day Treasury Bill (Primary) Yield	4.97	5.50	5.21	3.58	3.36
4.12 364-Day Treasury Bill (Primary) Yield	4.94	5.60	5.30	3.73	3.45
4.13 10-Year G-Sec Par Yield (FBIL)	6.71	6.85	6.54	6.04	5.91
5 Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (Rs. Per Foreign Currency)	74.84	70.84	70.96	73.73	73.97
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	82.64	77.32	78.81	86.04	86.97
5.3 Forward Premia of US$ 1-month (%)	8.98	3.98	3.38	3.74	3.24
3-month (%)	5.93	3.95	3.61	3.80	3.46
6-month (%)	5.05	4.23	3.99	3.91	3.89
6 Inflation (%)					
6.1 All India Consumer Price Index	4.76	4.0	4.6	7.3	7.6
6.2 Consumer Price Index for Industrial Workers	7.54	7.0	7.6	5.6	6.0
6.3 Wholesale Price Index	1.69	0.3	0.0	1.3	1.5
6.3.1 Primary Articles	6.77	5.5	6.0	5.1	4.7
6.3.2 Fuel and Power	-1.63	-6.7	-8.1	-9.5	-10.9
6.3.3 Manufactured Products	0.29	-0.4	-0.9	1.6	2.1
7 Foreign Trade (% Change)					
7.1 Imports	-7.66	-12.0	-15.0	-19.6	-11.5
7.2 Exports	-5.06	-6.6	-1.7	6.0	-5.1

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				
		Nov.	Oct. 30	Nov. 6	Nov. 13	Nov. 20	Nov. 27
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	2412993	2230697	2688725	2707002	2750848	2743952	2744155
1.1.2 Notes held in Banking Department	10	12	12	15	13	12	12
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**2413003**	**2230709**	**2688737**	**2707017**	**2750861**	**2743964**	**2744167**
1.2 Assets							
1.2.1 Gold Coin and Bullion	103439	88261	117206	121673	118331	116497	113222
1.2.2 Foreign Securities	2308718	2141628	2570667	2584508	2631727	2626673	2630160
1.2.3 Rupee Coin	846	820	864	836	803	794	785
1.2.4 Government of India Rupee Securities	–	–	–	–	–	–	–
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	1187409	896950	1439019	1473924	1488583	1488733	1445616
2.1.1.1 Central Government	100	100	100	100	101	101	100
2.1.1.2 Market Stabilisation Scheme							
2.1.1.3 State Governments	43	42	43	42	42	42	42
2.1.1.4 Scheduled Commercial Banks	536186	542975	453999	450857	459105	471488	461900
2.1.1.5 Scheduled State Co-operative Banks	7603	4657	5623	5426	5398	5209	5547
2.1.1.6 Non-Scheduled State Co-operative Banks	3445	2784	2405	2488	2633	2426	2414
2.1.1.7 Other Banks	32641	31479	26036	25768	27150	25555	27334
2.1.1.8 Others	605100	313483	950693	989243	994154	983912	944501
2.1.1.9 Financial Institution Outside India	2291	1430	120	_	_	_	3778
2.1.2 Other Liabilities	1350333	1135150	1424609	1472092	1481763	1465565	1462954
2.1/2.2 Total Liabilities or Assets	**2537742**	**2032100**	**2863628**	**2946016**	**2970346**	**2954298**	**2908570**
2.2 Assets							
2.2.1 Notes and Coins	10	12	12	15	13	12	12
2.2.2 Balances held Abroad	1006357	891144	1300811	1340061	1355753	1355621	1349768
2.2.3 Loans and Advances							
2.2.3.1 Central Government	50477	–	–	–	–	–	–
2.2.3.2 State Governments	1967	1261	4190	9037	21447	10731	2112
2.2.3.3 Scheduled Commercial Banks	285623	23012	115757	114463	114588	114711	77097
2.2.3.4 Scheduled State Co-op.Banks	–	–	–	–	–	–	–
2.2.3.5 Industrial Dev. Bank of India	–	–	–	–	–	–	–
2.2.3.6 NABARD	–	–	23320	23402	23402	23246	23596
2.2.3.7 EXIM Bank	–	–	–	–	–	–	–
2.2.3.8 Others	10064	4913	12931	12974	12974	10563	9216
2.2.3.9 Financial Institution Outside India	2300	_	10480	_	_	_	9703
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	–	–	–	–	–	–	–
2.2.4.2 Government Treasury Bills	–	–	–	–	–	–	–
2.2.5 Investments	1042951	1003900	1239727	1283809	1284235	1283729	1284031
2.2.6 Other Assets	137993	107858	156400	162255	157934	155685	153035
2.2.6.1 Gold	127644	102903	151494	157268	152949	150577	147429

* Data are provisional

No. 3: Liquidity Operations by RBI

(₹ Crore)

Date	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo	MSF	Standing Liquidity Facilities	Market Stabilisation Scheme	Sale	Purchase	Long Term Repo Operations &	Targeted Long Term Repo Operations #	Special Liquidity Facility for Mutual Funds	Special Liquidity Scheme for NBFCs/ HFCs **	Net Injection (+)/ Absorption (-) (1+3+5+6+9+10+ 11+12+13-2-4-7-8)
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Oct. 1, 2020	-	524913	-	-	40	-225	-	-	4550	-	-	-	-	-520548
Oct. 2, 2020	-	540	-	-	18	–	-	-	-	-	-	-	-	-522
Oct. 3, 2020	-	36242	-	-	490	–	-	-	-	-	-	-	-	-35752
Oct. 4, 2020	-	662	-	-	4	–	-	-	-	-	-	-	-	-658
Oct. 5, 2020	-	564267	-	-	121	–	-	10000	10000	-	-	-	-	-564146
Oct. 6, 2020	-	543339	-	-	0	–	-	-	1000	-	-	-	-	-542339
Oct. 7, 2020	-	534641	-	-	0	–	-	-	-	-	-	-	-	-534641
Oct. 8, 2020	-	545888	-	-	0	–	-	-	5790	-	-	-	-	-540098
Oct. 9, 2020	-	539325	-	-	0	10	-	-	-	-	-	-	-	-539315
Oct. 10, 2020	-	672	-	-	0	–	-	-	-	-	-	-	-	-672
Oct. 11, 2020	-	598	-	-	0	–	-	-	-	-	-	-	-	-598
Oct. 12, 2020	-	531112	-	-	0	–	-	-	-	-	-	-	-	-531112
Oct. 13, 2020	-	556230	-	-	0	-400	-	-	-	-	-	-	-	-556630
Oct. 14, 2020	-	560045	-	-	0	–	-	-	-	-	-	-	-	-560045
Oct. 15, 2020	-	565593	-	-	0	625	-	-	-	-	-	-	-	-564968
Oct. 16, 2020	-	571248	-	-	10	-1130	-	–	20000	-	-	-	-	-552368
Oct. 17, 2020	-	20932	-	-	462	–	-	-	-	-	-	-	-	-20470
Oct. 18, 2020	-	229	-	-	0	–	-	-	-	-	-	-	-	-229
Oct. 19, 2020	-	563075	-	-	3	12	-	-	-	-	-	-	-	-563060
Oct. 20, 2020	-	559247	-	-	125	-110	-	-	1595	-	-	-	-	-557637
Oct. 21, 2020	-	512847	-	-	0	–	-	-	1640	-	-	-	-	-511207
Oct. 22, 2020	-	541262	-	-	0	–	-	-	1130	-	-	-	-	-540132
Oct. 23, 2020	-	569336	-	-	6	–	-	–	10000	-	-	-	-	-559330
Oct. 24, 2020	-	2027	-	-	2	–	-	-	-	-	-	-	-	-2025
Oct. 25, 2020	-	543	-	-	0	–	-	-	-	-	-	-	-	-543
Oct. 26, 2020	-	561933	-	-	0	46	-	-	600	-	-	-	-	-561287
Oct. 27, 2020	-	585365	-	-	1	-37	-	-	-	-	-	-	-	-585401
Oct. 28, 2020	-	583101	-	-	160	32	-	-	-	-	-	-	-	-582909
Oct. 29, 2020	-	602552	-	-	0	-770	-	-	-	-	-	-	-	-603322
Oct. 30, 2020	-	4318	-	-	312	–	-	-	-	-	-	-	-	-4006
Oct. 31, 2020	-	45921	-	-	56	–	-	-	-	-	-	-	-	-45865

Notes: # Includes Targeted Long Term Repo Operations (TLTRO) and Targeted Long Term Repo Operations 2.0 (TLTRO 2.0)
**As per the RBI Notification No. 2020-21/01 dated July 01, 2020
& Negative (-) sign indicates repayments done by Banks.

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

i) Operations in onshore / offshore OTC segment

Item	2019-20	2019	2020	
		Oct.	Sep.	Oct.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1–1.2)	45097	7102	8172	15640
1.1 Purchase (+)	72205	7302	13322	15640
1.2 Sale (–)	27108	200	5150	0
2 ₹ equivalent at contract rate (₹ Crores)	312005	50257	60803	114896
3 Cumulative (over end-March) (US $ Million)	45097	18453	42487	58127
(₹ Crores)	312005	125266	317967	432863
4 Outstanding Net Forward Sales (–)/ Purchase (+) at the end of month (US $ Million)	-4939	-7473	13881	13556

ii) Operations in currency futures segment

Item	2019-20	2019	2020	
		Oct.	Sep.	Oct.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1–1.2)	0	0	0	0
1.1 Purchase (+)	7713	0	0	0
1.2 Sale (–)	7713	0	0	0
2 Outstanding Net Currency Futures Sales (–)/ Purchase (+) at the end of month (US $ Million)	-500	0	0	0

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

Item	As on October 31, 2020		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	2520	0	2520
2. More than 1 month and upto 3 months	5212	0	5212
3. More than 3 months and upto 1 year	14884	0	14884
4. More than 1 year	960	10020	-9060
Total (1+2+3+4)	**23576**	**10020**	**13556**

No. 5: RBI's Standing Facilities

(₹ Crore)

Item	As on the Last Reporting Friday							
	2019-20	2019	2020					
		Nov. 22	Jun. 19	Jul. 31	Aug. 28	Sep. 25	Oct. 23	Nov. 20
	1	2	3	4	5	6	7	8
1 MSF	1262	3231	310	80	300	50	6	266
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit	-	-	-	-	-	-	-	-
2.2 Outstanding	-	-	-	-	-	-	-	-
3 Liquidity Facility for PDs								
3.1 Limit	10000	2800	4900	4900	4900	4900	4900	4900
3.2 Outstanding	4782	1604	326	30	–	–	-	–
4 Others								
4.1 Limit	-	-	50000	65000	65000	65000	65000	75000
4.2 Outstanding	-	-	26894	34376	34166	37691	36488	33234
5 Total Outstanding (1+2.2+3.2+4.2)	6044	4835	27530	34486	34466	37741	36494	33500

Note :1.Special refinance facility to Others, i.e. to the EXIM Bank, is reopened since May 22, 2020
2.Refinance facility to Others, i.e. to the NABARD/SIDBI/NHB U/S 17(4H) of RBI ACT,1934, since, April 17, 2020.

Money and Banking

No. 6: Money Stock Measures

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2019-20	2019	2020		
		Oct. 25	Sep. 25	Oct. 9	Oct. 23
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	2349748	2161881	2585243	2609154	2619578
1.1 Notes in Circulation	2420964	2231090	2656476	2675166	2688064
1.2 Circulation of Rupee Coin	25605	25302	25738	25738	25738
1.3 Circulation of Small Coins	743	743	743	743	743
1.4 Cash on Hand with Banks	97563	95254	97715	92494	94967
2 Deposit Money of the Public	1776200	1508717	1739732	1633779	1666403
2.1 Demand Deposits with Banks	1737692	1477505	1696910	1590906	1625686
2.2 'Other' Deposits with Reserve Bank	38507	31212	42822	42873	40717
3 M_1 (1 + 2)	**4125948**	**3670598**	**4324974**	**4242933**	**4285981**
4 Post Office Saving Bank Deposits	150963	138452	150963	150963	150963
5 M_2 (3 + 4)	**4276911**	**3809050**	**4475937**	**4393896**	**4436944**
6 Time Deposits with Banks	12674016	12284764	13414790	13563304	13517758
7 M_3 (3 + 6)	**16799963**	**15955362**	**17739765**	**17806236**	**17803739**
8 Total Post Office Deposits	433441	395413	433441	433441	433441
9 M_4 (7 + 8)	**17233404**	**16350775**	**18173206**	**18239677**	**18237180**

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		
		Oct. 25	Sep. 25	Oct. 9	Oct. 23
	1	2	3	4	5
1 Net Bank Credit to Government	**4960362**	**4852157**	**5518318**	**5629859**	**5587218**
1.1 RBI's net credit to Government (1.1.1–1.1.2)	992192	966959	836430	925601	905454
1.1.1 Claims on Government	1047808	993464	1196304	1225283	1248802
1.1.1.1 Central Government	1045314	992794	1185788	1209805	1242339
1.1.1.2 State Governments	2494	670	10516	15478	6463
1.1.2 Government deposits with RBI	55616	26505	359874	299682	343348
1.1.2.1 Central Government	55573	26462	359832	299640	343305
1.1.2.2 State Governments	43	43	42	42	43
1.2 Other Banks' Credit to Government	3968170	3885198	4681888	4704258	4681764
2 Bank Credit to Commercial Sector	**11038644**	**10457195**	**10933906**	**11005588**	**10999620**
2.1 RBI's credit to commercial sector	13166	7680	14740	14804	14792
2.2 Other banks' credit to commercial sector	11025478	10449515	10919166	10990784	10984828
2.2.1 Bank credit by commercial banks	10370861	9840562	10271581	10343517	10338868
2.2.2 Bank credit by co-operative banks	637776	592379	637509	637577	636209
2.2.3 Investments by commercial and co-operative banks in other securities	16842	16574	10076	9690	9750
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**3801036**	**3344957**	**4230223**	**4274652**	**4365595**
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	3590402	3126960	3985569	4029998	4120941
3.1.1 Gross foreign assets	3590636	3127169	3985812	4030241	4121184
3.1.2 Foreign liabilities	234	209	243	243	243
3.2 Other banks' net foreign exchange assets	210634	217997	244655	244655	244655
4 Government's Currency Liabilities to the Public	**26348**	**26045**	**26481**	**26481**	**26481**
5 Banking Sector's Net Non-monetary Liabilities	**3026427**	**2724992**	**2969164**	**3130344**	**3175175**
5.1 Net non-monetary liabilities of RBI	1378342	1094490	1384384	1382173	1412121
5.2 Net non-monetary liabilities of other banks (residual)	1648085	1630502	1584780	1748171	1763054
M_3 (1+2+3+4–5)	**16799963**	**15955362**	**17739765**	**17806236**	**17803739**

No. 8: Monetary Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2019-20	2019	2020		
		Oct. 25	Sep. 25	Oct. 9	Oct. 23
	1	2	3	4	5
Monetary Aggregates					
NM_1 (1.1 + 1.2.1+1.3)	4125948	3670598	4324974	4242933	4285981
NM_2 (NM_1 + 1.2.2.1)	9745776	9117554	10285464	10272135	10294913
NM_3 (NM_2 + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	16923893	16111023	17826724	17896404	17894503
1 Components					
1.1 Currency with the Public	2349748	2161881	2585243	2609154	2619578
1.2 Aggregate Deposits of Residents	14226198	13581853	14942443	14989133	14978869
1.2.1 Demand Deposits	1737692	1477505	1696910	1590906	1625686
1.2.2 Time Deposits of Residents	12488506	12104348	13245533	13398227	13353183
1.2.2.1 Short-term Time Deposits	5619828	5446957	5960490	6029202	6008932
1.2.2.1.1 Certificates of Deposit (CDs)	169419	167104	73353	72796	180512
1.2.2.2 Long-term Time Deposits	6868678	6657391	7285043	7369025	7344251
1.3 'Other' Deposits with RBI	38507	31212	42822	42873	40717
1.4 Call/Term Funding from Financial Institutions	309439	336077	256217	255245	255339
2 Sources					
2.1 Domestic Credit	16856406	16210358	17430220	17599976	17548475
2.1.1 Net Bank Credit to the Government	4960362	4852157	5518318	5629859	5587218
2.1.1.1 Net RBI credit to the Government	992192	966959	836430	925601	905454
2.1.1.2 Credit to the Government by the Banking System	3968170	3885198	4681888	4704258	4681764
2.1.2 Bank Credit to the Commercial Sector	11896044	11358201	11911902	11970117	11961257
2.1.2.1 RBI Credit to the Commercial Sector	13166	7680	40026	39946	38919
2.1.2.2 Credit to the Commercial Sector by the Banking System	11882878	11350521	11871876	11930171	11922338
2.1.2.2.1 Other Investments (Non-SLR Securities)	846284	892285	940628	929553	926628
2.2 Government's Currency Liabilities to the Public	26348	26045	26481	26481	26481
2.3 Net Foreign Exchange Assets of the Banking Sector	3612303	3046312	4110620	4125488	4222595
2.3.1 Net Foreign Exchange Assets of the RBI	3590402	3126960	3985569	4029998	4120941
2.3.2 Net Foreign Currency Assets of the Banking System	21900	-80647	125051	95490	101655
2.4 Capital Account	2670439	2440799	2811108	2810840	2862261
2.5 Other items (net)	900725	730894	929489	1044700	1040788

No. 9: Liquidity Aggregates

(₹ Crore)

Aggregates	2019-20	2019	2020		
		Oct.	Aug.	Sep.	Oct.
	1	2	3	4	5
1 NM_3	**16923893**	**16111023**	**17752801**	**17826724**	**17894503**
2 Postal Deposits	433441	395413	433441	433441	433441
3 L_1 (1 + 2)	**17357334**	**16506436**	**18186242**	**18260165**	**18327944**
4 Liabilities of Financial Institutions	57479	2932	40801	38481	35342
4.1 Term Money Borrowings	7928	2656	7940	5700	3114
4.2 Certificates of Deposit	46249	31	29300	29300	28700
4.3 Term Deposits	3302	245	3561	3481	3528
5 L_2 (3 + 4)	**17414813**	**16509368**	**18227043**	**18298646**	**18363286**
6 Public Deposits with Non-Banking Financial Companies	31905	..	..	31905	..
7 L_3 (5 + 6)	**17446718**	..	..	**18330551**	..

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		
		Oct. 25	Sep. 25	Oct. 9	Oct. 23
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	2447312	2257135	2682957	2701647	2714545
1.2 Bankers' Deposits with the RBI	543888	587853	463610	473475	470552
1.2.1 Scheduled Commercial Banks	505131	548240	429915	439497	437010
1.3 'Other' Deposits with the RBI	38507	31212	42822	42873	40717
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	3029707	2876200	3189389	3217995	3225814
2 Sources					
2.1 RBI's Domestic Credit	791299	817685	561723	543689	490513
2.1.1 Net RBI credit to the Government	992192	966959	836430	925601	905454
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	966332	825956	910165	899034
2.1.1.1.1 Loans and Advances to the Central Government	–	–	–	–	–
2.1.1.1.2 Investments in Treasury Bills	–	–	–	–	–
2.1.1.1.3 Investments in dated Government Securities	1044468	992089	1185063	1208894	1241461
2.1.1.1.3.1 Central Government Securities	1044468	992089	1185063	1208894	1241461
2.1.1.1.4 Rupee Coins	846	705	725	911	878
2.1.1.1.5 Deposits of the Central Government	55573	26462	359832	299640	343305
2.1.1.2 Net RBI credit to State Governments	2451	627	10474	15436	6420
2.1.2 RBI's Claims on Banks	-214059	-156954	-314733	-421858	-453860
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	-214059	-156954	-289447	-396716	-429733
2.1.3 RBI's Credit to Commercial Sector	13166	7680	40026	39946	38919
2.1.3.1 Loans and Advances to Primary Dealers	5920	1884	–	–	–
2.1.3.2 Loans and Advances to NABARD	–	–	25286	25142	24127
2.2 Government's Currency Liabilities to the Public	26348	26045	26481	26481	26481
2.3 Net Foreign Exchange Assets of the RBI	3590402	3126960	3985569	4029998	4120941
2.3.1 Gold	230527	191868	264971	267714	271325
2.3.2 Foreign Currency Assets	3359893	2935109	3720615	3762301	3849633
2.4 Capital Account	1165066	982299	1223306	1219439	1251601
2.5 Other Items (net)	213276	112191	161078	162734	160520

No. 11: Reserve Money - Components and Sources

(₹ Crore)

Item	2019-20	Outstanding as on March 31/ last Fridays of the month/ Fridays						
		2019	2020					
		Nov. 1	Sep. 25	Oct. 2	Oct. 9	Oct. 16	Oct. 23	Oct. 30
	1	2	3	4	5	6	7	8
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 – 2.6)	3029707	2867866	3189389	3214558	3217995	3230396	3225814	3244482
1 Components								
1.1 Currency in Circulation	2447312	2257789	2682957	2680043	2701647	2706406	2714545	2715266
1.2 Bankers' Deposits with RBI	543888	578304	463610	490054	473475	483520	470552	488063
1.3 'Other' Deposits with RBI	38507	31774	42822	44461	42873	40470	40717	41154
2 Sources								
2.1 Net Reserve Bank Credit to Government	992192	1061602	836430	947103	925601	948664	905454	944911
2.2 Reserve Bank Credit to Banks	-214059	-271081	-289447	-380786	-396716	-431556	-429733	-467693
2.3 Reserve Bank Credit to Commercial Sector	13166	7266	14740	14794	14804	14805	14792	14795
2.4 Net Foreign Exchange Assets of RBI	3590402	3149078	3985569	3986639	4029998	4061127	4120941	4150295
2.5 Government's Currency Liabilities to the Public	26348	26123	26481	26481	26481	26481	26481	26541
2.6 Net Non- Monetary Liabilities of RBI	1378342	1105121	1384384	1379673	1382173	1389125	1412121	1424366

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		
		Oct. 25	Sep. 25	Oct. 9	Oct. 23
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	13381983	12797668	14093146	14136871	14126937
1.1.1 Demand Deposits	1617003	1361293	1576060	1469979	1505254
1.1.2 Time Deposits of Residents	11764979	11436375	12517086	12666892	12621683
1.1.2.1 Short-term Time Deposits	5294241	5146369	5632689	5700101	5679757
1.1.2.1.1 Certificates of Deposits (CDs)	169419	167104	73353	72796	180512
1.1.2.2 Long-term Time Deposits	6470739	6290006	6884397	6966791	6941925
1.2 Call/Term Funding from Financial Institutions	309439	336077	256217	255245	255339
2 Sources					
2.1 Domestic Credit	14966910	14416362	15654684	15735315	15707913
2.1.1 Credit to the Government	3738696	3675526	4437464	4459740	4438623
2.1.2 Credit to the Commercial Sector	11228214	10740836	11217220	11275575	11269289
2.1.2.1 Bank Credit	10370861	9840562	10271581	10343517	10338868
2.1.2.1.1 Non-food Credit	10319097	9770784	10205154	10280124	10272209
2.1.2.2 Net Credit to Primary Dealers	11378	8984	12345	10098	11146
2.1.2.3 Investments in Other Approved Securities	8653	7967	1629	1370	1610
2.1.2.4 Other Investments (in non-SLR Securities)	837321	883322	931666	920590	917666
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	21900	-80647	125051	95490	101655
2.2.1 Foreign Currency Assets	315641	229900	361222	328506	330844
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	185510	180416	169257	165077	164575
2.2.3 Overseas Foreign Currency Borrowings	108231	130131	66914	67939	64614
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	899410	790274	806963	918826	951675
2.3.1 Balances with the RBI	536186	548240	429915	439497	437010
2.3.2 Cash in Hand	87260	85079	87601	82613	84932
2.3.3 Loans and Advances from the RBI	-275964	-156954	-289447	-396716	-429733
2.4 Capital Account	1481202	1434329	1563631	1567231	1586490
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	715597	557914	673704	790285	792477
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	495445	380921	484513	451923	499287
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	65654	-42589	71093	71079	67861

No. 13: Scheduled Commercial Banks' Investments

(₹ Crore)

Item	As on March 27, 2020	2019	2020		
		Oct. 25	Sep. 25	Oct. 9	Oct. 23
	1	2	3	4	5
1 SLR Securities	3747349	3683493	4439092	4461110	4440234
2 Commercial Paper	104526	97516	92022	90233	88846
3 Shares issued by					
3.1 PSUs	14106	11329	11862	11788	11363
3.2 Private Corporate Sector	75415	65652	71294	71983	71675
3.3 Others	5734	5519	5037	5110	5430
4 Bonds/Debentures issued by					
4.1 PSUs	125710	126026	123873	122530	126667
4.2 Private Corporate Sector	226559	245773	304478	310741	306660
4.3 Others	191690	191125	148503	146918	146949
5 Instruments issued by					
5.1 Mutual funds	35610	56587	40302	30257	31182
5.2 Financial institutions	97665	83483	132981	131032	128894

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	
		Oct.	Sep.	Oct.		Oct.	Sep.	Oct.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	219	219	209	209	142	142	133	133
1 Liabilities to the Banking System	**320240**	**260623**	**282300**	**277344**	**314513**	**255643**	**277072**	**272212**
1.1 Demand and Time Deposits from Banks	239943	188936	221020	210418	234348	184140	215993	205487
1.2 Borrowings from Banks	64001	59888	45238	50821	64001	59827	45238	50821
1.3 Other Demand and Time Liabilities	16295	11799	16042	16105	16163	11675	15841	15903
2 Liabilities to Others	**14905949**	**14184753**	**15498736**	**15729998**	**14480607**	**13825214**	**15069677**	**15299087**
2.1 Aggregate Deposits	13975551	13324129	14674707	14835434	13567492	12978084	14262403	14420166
2.1.1 Demand	1653242	1392881	1611292	1607133	1617003	1361293	1576060	1571688
2.1.2 Time	12322309	11931247	13063416	13228301	11950489	11616791	12686343	12848478
2.2 Borrowings	313908	339832	260780	266573	309439	336077	256217	262303
2.3 Other Demand and Time Liabilities	616491	520792	563249	627991	603676	511052	551057	616618
3 Borrowings from Reserve Bank	**285623**	**22273**	**121530**	**115757**	**285623**	**22273**	**121495**	**115757**
3.1 Against Usance Bills /Promissory Notes	–	–	–	–	–	–	–	–
3.2 Others	285623	22273	121530	115757	285623	22273	121495	115757
4 Cash in Hand and Balances with Reserve Bank	643038	649788	531956	556984	623446	633319	517516	541685
4.1 Cash in Hand	89671	87248	89701	89841	87260	85079	87601	87687
4.2 Balances with Reserve Bank	553367	562540	442255	467143	536186	548240	429915	453999
5 Assets with the Banking System	**323680**	**359754**	**280547**	**274768**	**260238**	**307216**	**218022**	**214988**
5.1 Balances with Other Banks	181460	261933	187592	188421	155401	236433	153034	155188
5.1.1 In Current Account	17204	16691	16665	21027	14457	14136	14410	19033
5.1.2 In Other Accounts	164256	245242	170927	167394	140945	222297	138624	136155
5.2 Money at Call and Short Notice	43335	27172	33823	29172	20273	11047	11399	7726
5.3 Advances to Banks	38266	28927	21840	20510	30531	25437	21374	20000
5.4 Other Assets	60619	41722	37292	36664	54032	34298	32214	32074
6 Investment	**3865544**	**3781133**	**4571333**	**4598216**	**3747349**	**3683493**	**4439092**	**4468253**
6.1 Government Securities	3850819	3766764	4563197	4590310	3738696	3675526	4437463	4466596
6.2 Other Approved Securities	14724	14368	8135	7907	8653	7967	1629	1656
7 Bank Credit	**10705336**	**10127275**	**10603062**	**10708653**	**10370861**	**9840562**	**10271581**	**10374805**
7a Food Credit	82172	96810	96831	100684	51763	69779	66427	70281
7.1 Loans, Cash-credits and Overdrafts	10480934	9917389	10440241	10533796	10149509	9634456	10110780	10202821
7.2 Inland Bills-Purchased	26214	26014	20538	26560	25658	24720	20266	25409
7.3 Inland Bills-Discounted	147209	126797	95214	102180	145683	125199	94174	101192
7.4 Foreign Bills-Purchased	20866	24353	18608	17129	20458	24071	18357	16879
7.5 Foreign Bills-Discounted	30114	32723	28463	28988	29554	32117	28004	28505

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

(₹ Crore)

Item	Outstanding as on				Growth (%)	
	Mar. 27, 2020	2019	2020		Financial year so far	Y-o-Y
		Oct. 25	Sep. 25	Oct. 23	2020-21	2020
	1	2	3	4	5	6
1 Gross Bank Credit	**9263134**	**8733113**	**9183525**	**9213059**	**-0.5**	**5.5**
1.1 Food Credit	**51590**	**69555**	**66204**	**66428**	**28.8**	**-4.5**
1.2 Non-food Credit	**9211544**	**8663558**	**9117321**	**9146631**	**–0.7**	**5.6**
1.2.1 Agriculture & Allied Activities	**1157796**	**1134705**	**1194488**	**1218717**	**5.3**	**7.4**
1.2.2 Industry	**2905151**	**2786751**	**2774867**	**2739841**	**–5.7**	**-1.7**
1.2.2.1 Micro & Small	381825	359018	360833	361563	–5.3	0.7
1.2.2.2 Medium	105598	105558	120210	123150	16.6	16.7
1.2.2.3 Large	2417728	2322175	2293824	2255128	–6.7	-2.9
1.2.3 Services	**2594945**	**2352418**	**2576254**	**2576581**	**–0.7**	**9.5**
1.2.3.1 Transport Operators	144466	139102	147616	148172	2.6	6.5
1.2.3.2 Computer Software	20051	19062	19828	19368	–3.4	1.6
1.2.3.3 Tourism, Hotels & Restaurants	45977	43398	48378	48594	5.7	12.0
1.2.3.4 Shipping	6557	5893	5099	5364	–18.2	-9.0
1.2.3.5 Professional Services	177085	169783	175455	178191	0.6	5.0
1.2.3.6 Trade	552392	505037	566336	575886	4.3	14.0
1.2.3.6.1 Wholesale Trade	263397	218722	263499	268058	1.8	22.6
1.2.3.6.2 Retail Trade	288995	286315	302837	307828	6.5	7.5
1.2.3.7 Commercial Real Estate	229770	220300	230025	227992	–0.8	3.5
1.2.3.8 Non-Banking Financial Companies (NBFCs)	807383	713344	802552	778739	–3.5	9.2
1.2.3.9 Other Services	611264	536499	580965	594275	–2.8	10.8
1.2.4 Personal Loans	**2553652**	**2389684**	**2571712**	**2611492**	**2.3**	**9.3**
1.2.4.1 Consumer Durables	9298	5557	6661	6881	–26.0	23.8
1.2.4.2 Housing	1338964	1268734	1359824	1373277	2.6	8.2
1.2.4.3 Advances against Fixed Deposits	79496	62902	63167	61460	–22.7	-2.3
1.2.4.4 Advances to Individuals against share & bond	5334	5056	6325	6296	18.0	24.5
1.2.4.5 Credit Card Outstanding	108094	105026	105640	110207	2.0	4.9
1.2.4.6 Education	65745	67238	65146	65432	–0.5	-2.7
1.2.4.7 Vehicle Loans	220609	206720	221388	224022	1.5	8.4
1.2.4.8 Other Personal Loans	726112	668451	743561	763917	5.2	14.3
1.2A Priority Sector	**2897461**	**2766084**	**2884154**	**2930417**	**1.1**	**5.9**
1.2A.1 Agriculture & Allied Activities	1146624	1125522	1180052	1203789	5.0	7.0
1.2A.2 Micro & Small Enterprises	1149394	1053403	1127110	1125326	–2.1	6.8
1.2A.2.1 Manufacturing	381826	359018	360833	361562	–5.3	0.7
1.2A.2.2 Services	767568	694385	766277	763764	–0.5	10.0
1.2A.3 Housing	449945	455536	464642	462216	2.7	1.5
1.2A.4 Micro-Credit	38237	32525	32333	32760	–14.3	0.7
1.2A.5 Education Loans	51906	53736	51898	51789	–0.2	-3.6
1.2A.6 State-Sponsored Orgs. for SC/ST	388	397	515	540	39.2	36.0
1.2A.7 Weaker Sections	731409	704413	743792	727814	–0.5	3.3
1.2A.8 Export Credit	16114	14040	14831	13850	–14.0	-1.4

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

(₹ Crore)

Industry	Outstanding as on				Growth (%)	
	Mar. 27, 2020	2019	2020		Financial year so far	Y-o-Y
		Oct. 25	Sep. 25	Oct. 23	2020-21	2020
	1	2	3	4	5	6
1 Industry	**2905151**	**2786751**	**2774867**	**2739841**	**–5.7**	**–1.7**
1.1 Mining & Quarrying (incl. Coal)	**43927**	**41176**	**41366**	**42944**	**–2.2**	**4.3**
1.2 Food Processing	**154146**	**139693**	**148446**	**144158**	**–6.5**	**3.2**
1.2.1 Sugar	27382	25914	20783	18371	–32.9	–29.1
1.2.2 Edible Oils & Vanaspati	19240	17681	18412	17956	–6.7	1.6
1.2.3 Tea	5375	5497	5587	5851	8.9	6.4
1.2.4 Others	102149	90601	103664	101980	–0.2	12.6
1.3 Beverage & Tobacco	**16522**	**14717**	**14961**	**14830**	**–10.2**	**0.8**
1.4 Textiles	**192424**	**187677**	**188917**	**185856**	**–3.4**	**–1.0**
1.4.1 Cotton Textiles	89283	83999	84905	84289	–5.6	0.3
1.4.2 Jute Textiles	2116	2209	2420	2318	9.5	4.9
1.4.3 Man-Made Textiles	26074	25763	26996	26628	2.1	3.4
1.4.4 Other Textiles	74951	75706	74596	72621	–3.1	–4.1
1.5 Leather & Leather Products	**11098**	**11052**	**11856**	**11368**	**2.4**	**2.9**
1.6 Wood & Wood Products	**12233**	**11992**	**13039**	**12786**	**4.5**	**6.6**
1.7 Paper & Paper Products	**30965**	**30507**	**33118**	**33159**	**7.1**	**8.7**
1.8 Petroleum, Coal Products & Nuclear Fuels	**75834**	**52477**	**60536**	**61172**	**–19.3**	**16.6**
1.9 Chemicals & Chemical Products	**202949**	**176120**	**175174**	**171479**	**–15.5**	**–2.6**
1.9.1 Fertiliser	49066	34080	34167	36560	–25.5	7.3
1.9.2 Drugs & Pharmaceuticals	53427	48873	50111	48477	–9.3	–0.8
1.9.3 Petro Chemicals	42233	39743	35851	35172	–16.7	–11.5
1.9.4 Others	58223	53424	55045	51270	–11.9	–4.0
1.10 Rubber, Plastic & their Products	**50415**	**46919**	**49187**	**47580**	**–5.6**	**1.4**
1.11 Glass & Glassware	**8777**	**8687**	**8989**	**8748**	**–0.3**	**0.7**
1.12 Cement & Cement Products	**58689**	**60587**	**58324**	**57789**	**–1.5**	**–4.6**
1.13 Basic Metal & Metal Product	**350325**	**351144**	**343016**	**337746**	**–3.6**	**–3.8**
1.13.1 Iron & Steel	262396	268259	252654	247448	–5.7	–7.8
1.13.2 Other Metal & Metal Product	87929	82885	90362	90298	2.7	8.9
1.14 All Engineering	**157259**	**166861**	**140249**	**137361**	**–12.7**	**–17.7**
1.14.1 Electronics	30159	35706	27706	27146	–10.0	–24.0
1.14.2 Others	127100	131155	112543	110215	–13.3	–16.0
1.15 Vehicles, Vehicle Parts & Transport Equipment	**82606**	**82552**	**90109**	**88400**	**7.0**	**7.1**
1.16 Gems & Jewellery	**59515**	**62792**	**55619**	**57374**	**–3.6**	**–8.6**
1.17 Construction	**104288**	**99394**	**104600**	**104447**	**0.2**	**5.1**
1.18 Infrastructure	**1053913**	**1019784**	**1015238**	**999104**	**–5.2**	**–2.0**
1.18.1 Power	559774	559953	551886	552553	–1.3	–1.3
1.18.2 Telecommunications	143760	127493	114825	100969	–29.8	–20.8
1.18.3 Roads	190676	185424	198304	197379	3.5	6.4
1.18.4 Other Infrastructure	159703	146914	150223	148203	–7.2	0.9
1.19 Other Industries	**239266**	**222620**	**222123**	**223540**	**–6.6**	**0.4**

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								
	2019-20	2019	2020						
		Sep. 27	Jul. 03	Jul. 17	Jul. 31	Aug. 14	Aug. 28	Sep. 11	Sep. 25
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	32	32	31	31	31	31	31	31	31
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	**124101.8**	**63866.3**	**126452.9**	**127076.2**	**126359.1**	**125939.1**	**126547.5**	**126582.5**	**126143.1**
2 Demand and Time Liabilities									
2.1 Demand Liabilities	**26213.8**	**19061.0**	**25074.2**	**25271.3**	**24479.1**	**24074.5**	**24751.6**	**24479.0**	**22274.4**
2.1.1 Deposits									
2.1.1.1 Inter-Bank	5295.0	5430.9	4876.4	4823.2	4000.0	3821.7	3773.1	3873.1	4189.6
2.1.1.2 Others	14,523.6	10077.7	13533.9	13870.4	13837.0	13677.4	14264.3	14492.2	13472.0
2.1.2 Borrowings from Banks	100.0	20.0	0.0	0.0	268.7	135.0	264.9	209.9	229.9
2.1.3 Other Demand Liabilities	6295.2	3532.4	6663.9	6577.6	6373.3	6440.4	6449.2	5903.7	4382.9
2.2 Time Liabilities	**167684.5**	**108182.2**	**176605.2**	**176793.3**	**174061.7**	**172745.5**	**171640.9**	**171314.7**	**172128.5**
2.2.1 Deposits									
2.2.1.1 Inter-Bank	56564.0	53432.8	62166.3	61276.4	59247.7	58983.7	57209.2	57723.3	56835.6
2.2.1.2 Others	109578.2	53788.6	112919.0	113205.8	112522.0	112261.6	112283.2	112090.2	112671.1
2.2.2 Borrowings from Banks	630.2	0.0	629.9	629.9	629.9	629.9	629.9	629.9	673.0
2.2.3 Other Time Liabilities	912.1	960.7	890.0	1681.1	1662.1	870.2	1518.6	871.2	1948.9
3 Borrowing from Reserve Bank	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0
4 Borrowings from a notified bank / Government	52772.2	45028.6	55890.4	56131.0	57274.5	57354.0	53795.3	56629.9	57927.2
4.1 Demand	13764.4	13568.4	12098.1	12152.6	14236.6	14067.2	13174.5	13809.3	14065.7
4.2 Time	39007.8	31460.2	43792.3	43978.5	43037.9	43286.7	40620.8	42820.6	43861.5
5 Cash in Hand and Balances with Reserve Bank	**9428.2**	**5497.1**	**6999.4**	**7149.1**	**7112.2**	**6875.5**	**6841.4**	**6879.6**	**7000.4**
5.1 Cash in Hand	750.5	296.4	685.9	677.3	552.6	572.4	592.3	575.6	555.1
5.2 Balance with Reserve Bank	8677.8	5200.8	6313.4	6471.7	6559.6	6303.2	6249.1	6304.0	6445.3
6 Balances with Other Banks in Current Account	**1521.7**	**874.6**	**1049.6**	**1134.0**	**965.4**	**809.9**	**807.4**	**983.9**	**988.1**
7 Investments in Government Securities	**50626.9**	**31887.1**	**55424.4**	**55598.4**	**56888.2**	**58199.1**	**55743.6**	**56942.0**	**59312.3**
8 Money at Call and Short Notice	**25283.9**	**20119.8**	**29114.7**	**28181.5**	**25336.5**	**25269.1**	**25414.9**	**27749.8**	**26346.6**
9 Bank Credit (10.1+11)	**110905.5**	**63753.9**	**110067.3**	**111344.7**	**112074.1**	**112631.8**	**113285.8**	**112267.8**	**111857.3**
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	**110901.5**	**63752.8**	**110066.6**	**111344.0**	**112073.4**	**112631.2**	**113285.2**	**112252.0**	**111841.4**
10.2 Due from Banks	81300.1	74965.4	80854.4	81068.7	80109.4	79793.4	77827.8	79526.6	79397.4
11 Bills Purchased and Discounted	4.0	1.1	0.6	0.6	0.7	0.6	0.6	15.7	15.9

Prices and Production

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

Group/Sub group	2019-20			Rural			Urban			Combined		
	Rural	Urban	Combined	Oct. '19	Sep. '20	Oct. '20(P)	Oct. '19	Sep. '20	Oct. '20(P)	Oct. '19	Sep. '20	Oct. '20(P)
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	**146.3**	**149.6**	**147.5**	**148.3**	**159.6**	**163.3**	**151.9**	**164.4**	**167.4**	**149.6**	**161.4**	**164.8**
1.1 Cereals and products	140.7	143.2	141.4	141.0	146.0	145.1	143.5	150.6	149.8	141.8	147.5	146.6
1.2 Meat and fish	163.3	161.4	162.6	161.6	186.3	188.8	159.8	193.7	195.4	161.0	188.9	191.1
1.3 Egg	142.1	145.7	143.5	141.2	159.2	171.6	144.7	164.8	177.0	142.6	161.4	173.7
1.4 Milk and products	146.5	146.0	146.3	146.5	153.6	153.8	145.6	153.7	153.9	146.2	153.6	153.8
1.5 Oils and fats	127.1	121.8	125.1	125.6	142.6	145.4	121.1	135.7	138.0	123.9	140.1	142.7
1.6 Fruits	144.0	148.8	146.2	145.7	147.2	146.6	150.6	155.7	150.7	148.0	151.2	148.5
1.7 Vegetables	163.5	187.8	171.7	178.8	200.6	221.8	207.2	226.0	248.3	188.4	209.2	230.8
1.8 Pulses and products	133.7	132.0	133.1	133.1	150.3	155.9	131.2	152.2	158.7	132.5	150.9	156.8
1.9 Sugar and confectionery	112.0	113.4	112.5	113.6	115.3	114.8	114.8	118.1	117.2	114.0	116.2	115.6
1.10 Spices	145.6	145.1	145.5	145.5	160.9	161.9	145.2	161.3	161.5	145.4	161.0	161.8
1.11 Non-alcoholic beverages	138.8	130.2	135.2	138.6	147.4	150.0	130.2	139.2	141.5	135.1	144.0	146.5
1.12 Prepared meals, snacks, sweets	157.6	156.7	157.2	157.4	161.9	162.7	156.8	164.8	165.1	157.1	163.2	163.8
2 Pan, tobacco and intoxicants	**166.3**	**169.0**	**167.0**	**166.3**	**182.7**	**183.5**	**169.3**	**188.7**	**188.9**	**167.1**	**184.3**	**184.9**
3 Clothing and footwear	**151.3**	**143.7**	**148.3**	**151.0**	**155.0**	**155.6**	**143.9**	**148.3**	**148.8**	**148.2**	**152.3**	**152.9**
3.1 Clothing	152.0	145.7	149.5	151.7	155.7	156.4	145.9	150.5	151.0	149.4	153.7	154.3
3.2 Footwear	146.9	132.4	140.9	146.7	150.6	151.0	132.4	136.1	136.4	140.8	144.6	144.9
4 Housing	**--**	**152.2**	**152.2**	**--**	**--**	**--**	**153.0**	**156.5**	**158.0**	**153.0**	**156.5**	**158.0**
5 Fuel and light	**148.6**	**131.5**	**142.2**	**147.7**	**146.8**	**147.7**	**128.9**	**137.1**	**137.4**	**140.6**	**143.1**	**143.8**
6 Miscellaneous	**145.6**	**135.9**	**140.9**	**145.7**	**154.3**	**154.5**	**136.0**	**146.2**	**146.6**	**141.0**	**150.4**	**150.7**
6.1 Household goods and services	150.6	138.7	145.0	150.6	152.0	152.7	138.7	145.1	145.1	145.0	148.7	149.1
6.2 Health	153.6	142.1	149.3	153.7	159.5	160.4	142.4	151.0	152.0	149.4	156.3	157.2
6.3 Transport and communication	132.6	122.2	127.1	131.7	146.4	146.1	121.5	135.4	135.3	126.3	140.6	140.4
6.4 Recreation and amusement	148.3	135.9	141.3	148.7	152.4	153.4	136.2	142.0	144.3	141.7	146.5	148.3
6.5 Education	159.8	150.9	154.5	160.7	162.5	161.7	151.7	155.7	156.4	155.4	158.5	158.6
6.6 Personal care and effects	139.2	138.4	138.9	140.3	156.2	156.1	139.5	158.1	158.0	140.0	157.0	156.9
General Index (All Groups)	**147.3**	**145.1**	**146.3**	**148.3**	**157.5**	**159.7**	**146.0**	**155.2**	**156.8**	**147.2**	**156.4**	**158.4**

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

No. 19: Other Consumer Price Indices

Item	Base Year	Linking Factor	2019-20	2019	2020	
				Oct.	Sep.	Oct.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2016	2.88	--	–	118.1	119.5
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	980	987	1037	1052
3 Consumer Price Index for Rural Labourers	1986-87	–	986	993	1043	1057

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

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

Item	2019-20	2019	2020	
		Oct.	Sep.	Oct.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	37018	38214	50784	50698
2 Silver (₹ per kilogram)	42514	45578	63337	61320

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		
			Oct.	Aug.	Sep. (P)	Oct. (P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**121.8**	**122.0**	**122.0**	**122.9**	**123.8**
1.1 PRIMARY ARTICLES	**22.618**	**143.3**	**145.5**	**146.7**	**150.3**	**152.4**
1.1.1 FOOD ARTICLES	**15.256**	**155.8**	**160.2**	**163.0**	**168.1**	**170.4**
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	159.6	160.8	159.7	158.3	158.1
1.1.1.2 Fruits & Vegetables	3.475	174.7	194.2	187.6	210.0	222.3
1.1.1.3 Milk	4.440	146.7	146.2	152.3	153.8	154.3
1.1.1.4 Eggs,Meat & Fish	2.402	147.0	145.6	153.4	150.7	148.0
1.1.1.5 Condiments & Spices	0.529	143.9	148.8	143.8	149.1	153.0
1.1.1.6 Other Food Articles	0.948	144.0	142.9	169.9	172.1	167.0
1.1.2 NON-FOOD ARTICLES	**4.119**	**128.7**	**126.1**	**125.5**	**126.7**	**129.7**
1.1.2.1 Fibres	0.839	128.2	126.4	106.9	121.2	114.2
1.1.2.2 Oil Seeds	1.115	151.4	151.4	155.8	155.5	158.0
1.1.2.3 Other non-food Articles	1.960	104.8	103.1	104.8	104.6	109.6
1.1.2.4 Floriculture	0.204	238.0	207.4	235.2	203.4	231.7
1.1.3 MINERALS	**0.833**	**154.5**	**153.6**	**167.6**	**166.5**	**167.6**
1.1.3.1 Metallic Minerals	0.648	147.4	147.3	162.6	160.6	162.6
1.1.3.2 Other Minerals	0.185	179.0	176.0	185.1	187.0	185.1
1.1.4 CRUDE PETROLEUM & NATURAL GAS	**2.410**	**85.3**	**82.8**	**72.2**	**72.0**	**72.0**
1.2 FUEL & POWER	**13.152**	**102.2**	**102.3**	**92.0**	**91.0**	**91.1**
1.2.1 COAL	**2.138**	**125.3**	**126.5**	**126.4**	**126.4**	**126.4**
1.2.1.1 Coking Coal	0.647	138.1	141.9	141.6	141.6	141.6
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	131.1	131.1	131.1	131.1
1.2.2 MINERAL OILS	**7.950**	**92.3**	**92.8**	**78.4**	**77.7**	**76.2**
1.2.3 ELECTRICITY	**3.064**	**111.8**	**110.0**	**103.4**	**101.0**	**105.3**
1.3 MANUFACTURED PRODUCTS	**64.231**	**118.3**	**117.8**	**119.4**	**119.8**	**120.3**
1.3.1 MANUFACTURE OF FOOD PRODUCTS	**9.122**	**133.9**	**134.6**	**139.8**	**140.0**	**140.7**
1.3.1.1 Processing and Preserving of meat	0.134	137.5	139.6	138.1	138.0	136.9
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	136.1	139.3	140.1	146.1	136.3
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	114.3	113.5	119.9	119.7	118.4
1.3.1.4 Vegetable and Animal oils and Fats	2.643	119.3	116.6	134.1	136.7	140.5
1.3.1.5 Dairy products	1.165	145.0	145.8	145.6	145.3	145.7
1.3.1.6 Grain mill products	2.010	146.3	148.3	144.4	143.7	142.9
1.3.1.7 Starches and Starch products	0.110	135.5	136.8	107.7	106.6	107.5
1.3.1.8 Bakery products	0.215	133.5	133.3	137.5	137.8	137.9
1.3.1.9 Sugar, Molasses & honey	1.163	118.3	119.9	120.1	119.7	118.6
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	127.2	128.5	127.5	127.5	127.8
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	132.7	135.8	134.4	132.4	131.3
1.3.1.12 Tea & Coffee products	0.371	139.7	142.8	189.7	179.5	183.9
1.3.1.13 Processed condiments & salt	0.163	132.4	134.4	146.0	146.0	145.8
1.3.1.14 Processed ready to eat food	0.024	128.7	126.7	132.6	134.0	130.7
1.3.1.15 Health supplements	0.225	159.9	167.5	146.8	143.2	141.9
1.3.1.16 Prepared animal feeds	0.356	173.6	180.1	168.5	171.1	170.0
1.3.2 MANUFACTURE OF BEVERAGES	**0.909**	**123.6**	**123.2**	**125.3**	**124.6**	**123.8**
1.3.2.1 Wines & spirits	0.408	117.8	117.9	120.3	120.2	120.2
1.3.2.2 Malt liquors and Malt	0.225	125.7	126.4	128.8	127.1	124.8
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	130.5	128.6	129.9	129.0	128.5
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	**0.514**	**153.4**	**154.4**	**153.0**	**157.9**	**155.3**
1.3.3.1 Tobacco products	0.514	153.4	154.4	153.0	157.9	155.3

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2019-20	2019	2020		
			Oct.	Aug.	Sep. (P)	Oct. (P)
1.3.4 MANUFACTURE OF TEXTILES	**4.881**	**117.7**	**117.3**	**113.0**	**113.4**	**114.7**
1.3.4.1 Preparation and Spinning of textile fibres	2.582	107.9	107.4	100.3	101.2	102.3
1.3.4.2 Weaving & Finishing of textiles	1.509	130.1	129.3	128.5	127.8	129.9
1.3.4.3 Knitted and Crocheted fabrics	0.193	114.5	115.2	115.1	114.6	113.8
1.3.4.4 Made-up textile articles, Except apparel	0.299	134.5	135.2	131.3	131.0	130.8
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	143.1	143.0	148.8	154.8	155.6
1.3.4.6 Other textiles	0.201	116.8	117.8	114.4	114.5	115.5
1.3.5 MANUFACTURE OF WEARING APPAREL	**0.814**	**138.3**	**138.4**	**137.5**	**138.1**	**138.2**
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	139.2	138.9	137.2	137.8	137.1
1.3.5.2 Knitted and Crocheted apparel	0.221	135.9	136.8	138.3	138.8	141.1
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	**0.535**	**118.6**	**118.5**	**118.1**	**118.1**	**118.0**
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	105.5	105.5	102.5	102.4	102.8
1.3.6.2 Luggage, HandbAgs, Saddlery and Harness	0.075	136.3	136.4	139.0	138.4	138.6
1.3.6.3 Footwear	0.318	120.3	120.0	120.1	120.3	119.9
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	**0.772**	**133.7**	**133.7**	**133.6**	**134.6**	**133.5**
1.3.7.1 Saw milling and Planing of wood	0.124	122.2	120.9	119.2	118.4	120.3
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	135.5	135.8	135.4	136.6	134.7
1.3.7.3 Builder's carpentry and Joinery	0.036	176.2	176.1	188.0	188.2	189.6
1.3.7.4 Wooden containers	0.119	125.7	125.9	124.8	127.5	125.5
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	**1.113**	**121.1**	**120.1**	**119.0**	**119.8**	**119.2**
1.3.8.1 Pulp, Paper and Paperboard	0.493	125.0	123.0	120.6	121.6	120.6
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	115.0	114.7	119.3	119.9	120.9
1.3.8.3 Other articles of paper and Paperboard	0.306	121.2	120.9	116.1	116.8	115.0
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	**0.676**	**150.6**	**152.1**	**152.7**	**155.1**	**155.2**
1.3.9.1 Printing	0.676	150.6	152.1	152.7	155.1	155.2
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	**6.465**	**117.5**	**117.1**	**116.1**	**116.0**	**116.8**
1.3.10.1 Basic chemicals	1.433	119.9	118.9	115.0	114.7	115.2
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	123.1	122.9	123.7	123.2	123.1
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	112.4	112.1	112.4	112.7	115.5
1.3.10.4 Pesticides and Other agrochemical products	0.454	122.6	123.0	125.3	124.8	125.8
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	114.7	113.8	112.7	114.0	114.3
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	118.6	118.4	119.6	119.3	120.0
1.3.10.7 Other chemical products	0.692	114.2	113.7	113.2	112.7	112.9
1.3.10.8 Man-made fibres	0.296	97.9	97.3	88.1	88.4	89.4
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	**1.993**	**127.3**	**126.8**	**130.7**	**129.2**	**131.0**
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	127.3	126.8	130.7	129.2	131.0
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	**2.299**	**108.5**	**108.4**	**107.6**	**108.7**	**109.7**
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	98.9	98.0	97.4	97.7	97.9
1.3.12.2 Other Rubber Products	0.272	93.5	94.1	91.7	91.7	90.8
1.3.12.3 Plastics products	1.418	115.4	115.5	115.0	116.7	118.3
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	**3.202**	**116.7**	**115.4**	**116.6**	**116.8**	**116.5**
1.3.13.1 Glass and Glass products	0.295	124.5	121.0	126.3	128.3	127.6
1.3.13.2 Refractory products	0.223	108.7	109.3	107.7	108.9	109.0
1.3.13.3 Clay Building Materials	0.121	102.8	102.5	107.0	107.5	107.5
1.3.13.4 Other Porcelain and Ceramic Products	0.222	113.9	112.7	106.9	107.9	108.0
1.3.13.5 Cement, Lime and Plaster	1.645	119.5	118.2	120.3	119.9	119.1

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2019-20	2019	2020		
			Oct.	Aug.	Sep. (P)	Oct. (P)
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	121.6	121.3	124.1	124.1	125.0
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	120.2	119.0	119.7	120.4	121.3
1.3.13.8 Other Non-Metallic Mineral Products	0.169	86.6	84.9	77.6	77.6	77.6
1.3.14 MANUFACTURE OF BASIC METALS	**9.646**	**106.2**	**103.4**	**106.5**	**107.9**	**108.9**
1.3.14.1 Inputs into steel making	1.411	100.6	95.1	101.4	103.6	105.3
1.3.14.2 Metallic Iron	0.653	107.7	102.1	108.3	110.8	111.4
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	95.1	92.8	97.7	97.3	97.3
1.3.14.4 Mild Steel -Long Products	1.081	105.5	102.6	104.5	105.8	108.0
1.3.14.5 Mild Steel - Flat products	1.144	108.7	103.3	108.8	112.1	115.4
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	102.8	98.9	103.2	103.2	102.6
1.3.14.7 Stainless Steel - Semi Finished	0.924	102.9	98.8	102.7	105.6	105.7
1.3.14.8 Pipes & tubes	0.205	126.2	125.1	125.3	123.6	123.3
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	107.0	106.4	109.4	110.6	111.0
1.3.14.10 Castings	0.925	112.8	113.5	107.9	107.4	108.5
1.3.14.11 Forgings of steel	0.271	146.5	148.5	143.8	144.3	143.6
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	**3.155**	**115.5**	**115.1**	**112.5**	**113.3**	**114.4**
1.3.15.1 Structural Metal Products	1.031	113.9	113.6	110.6	110.0	111.9
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	124.4	125.0	120.6	122.2	125.4
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	104.7	106.3	99.0	99.0	98.6
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	100.5	100.2	95.6	99.6	96.3
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	100.5	100.5	102.1	102.5	102.6
1.3.15.6 Other Fabricated Metal Products	0.728	124.0	121.9	122.5	122.9	123.9
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	**2.009**	**110.4**	**109.8**	**109.5**	**109.1**	**108.9**
1.3.16.1 Electronic Components	0.402	98.1	98.3	99.0	96.8	98.8
1.3.16.2 Computers and Peripheral Equipment	0.336	135.0	135.1	135.1	135.1	135.2
1.3.16.3 Communication Equipment	0.310	117.0	117.5	114.2	114.3	113.8
1.3.16.4 Consumer Electronics	0.641	98.8	97.2	98.0	97.9	96.5
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	111.5	110.3	106.0	106.1	106.1
1.3.16.6 Watches and Clocks	0.076	139.1	138.7	142.8	142.9	142.6
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	103.6	102.5	103.0	103.0	101.6
1.3.16.8 Optical instruments and Photographic equipment	0.008	110.2	109.4	108.8	111.2	102.0
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	**2.930**	**111.3**	**111.2**	**111.7**	**112.2**	**112.5**
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	109.0	108.5	111.0	112.5	111.7
1.3.17.2 Batteries and Accumulators	0.236	117.0	117.0	116.8	116.9	119.0
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	109.9	108.4	94.3	93.3	94.0
1.3.17.4 Other electronic and Electric wires and Cables	0.428	109.7	110.0	112.6	113.3	114.0
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	111.1	112.6	110.9	110.0	110.7
1.3.17.6 Domestic appliances	0.366	119.9	120.5	118.6	118.6	119.0
1.3.17.7 Other electrical equipment	0.206	108.6	107.6	108.4	107.3	109.0
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	**4.789**	**113.1**	**112.7**	**113.7**	**113.7**	**113.9**
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	104.8	103.4	105.5	104.4	105.9
1.3.18.2 Fluid power equipment	0.162	119.9	120.2	119.4	119.6	119.9
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	111.2	111.0	112.4	111.2	111.1
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	110.1	109.9	109.6	111.8	111.2
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	80.0	80.1	81.6	81.9	82.0
1.3.18.6 Lifting and Handling equipment	0.285	111.5	110.8	113.2	113.3	113.6

No. 21: Wholesale Price Index (Concld.)

(Base: 2011-12 = 100)

Commodities	Weight	2019-20	2019	2020		
			Oct.	Aug.	Sep. (P)	Oct. (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	130.2	128.3	127.8	129.7
1.3.18.9 Agricultural and Forestry machinery	0.833	120.6	121.3	121.5	121.7	121.2
1.3.18.10 Metal-forming machinery and Machine tools	0.224	108.1	107.9	107.7	108.7	107.9
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	75.1	74.2	75.6	75.2	75.0
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	125.2	125.7	128.5	128.3	128.6
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	119.7	117.7	122.2	122.3	122.4
1.3.18.14 Other special-purpose machinery	0.468	126.3	126.2	127.5	128.9	128.8
1.3.18.15 Renewable electricity generating equipment	0.046	66.0	65.8	64.3	64.4	64.3
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	**4.969**	**114.5**	**114.7**	**117.5**	**117.5**	**117.3**
1.3.19.1 Motor vehicles	2.600	115.2	115.2	118.5	118.5	119.2
1.3.19.2 Parts and Accessories for motor vehicles	2.368	113.7	114.2	116.4	116.4	115.3
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	**1.648**	**118.0**	**118.0**	**125.9**	**126.3**	**126.7**
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	106.4	106.6	105.8	105.8	104.7
1.3.20.3 Motor cycles	1.302	114.3	114.4	124.5	124.9	125.6
1.3.20.4 Bicycles and Invalid carriages	0.117	128.9	128.1	127.9	128.9	128.2
1.3.20.5 Other transport equipment	0.002	126.1	125.9	127.5	127.5	127.7
1.3.21 MANUFACTURE OF FURNITURE	**0.727**	**130.9**	**131.6**	**128.9**	**129.5**	**132.9**
1.3.21.1 Furniture	0.727	130.9	131.6	128.9	129.5	132.9
1.3.22 OTHER MANUFACTURING	**1.064**	**112.7**	**116.7**	**138.2**	**136.1**	**134.8**
1.3.22.1 Jewellery and Related articles	0.996	109.9	114.1	136.8	134.5	133.2
1.3.22.2 Musical instruments	0.001	174.0	166.4	172.6	163.0	166.4
1.3.22.3 Sports goods	0.012	129.7	129.8	131.0	131.1	131.0
1.3.22.4 Games and Toys	0.005	136.9	135.9	141.4	142.6	142.9
1.3.22.5 Medical and Dental instruments and Supplies	0.049	162.1	162.5	167.5	166.9	168.1
2 FOOD INDEX	**24.378**	**147.6**	**150.6**	**154.3**	**157.6**	**159.3**

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

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

Industry	Weight	2018-19	2019-20	April-September		September	
				2019-20	2020-21	2019	2020
	1	2	3	4	5	6	7
General Index	100.00	130.1	129.0	128.7	101.6	122.9	123.2
1 Sectoral Classification							
1.1 Mining	14.37	107.9	109.6	100.5	85.1	86.4	87.6
1.2 Manufacturing	77.63	131.5	129.6	129.9	99.2	126.0	125.3
1.3 Electricity	7.99	156.9	158.4	168.1	154.6	158.7	166.4
2 Use-Based Classification							
2.1 Primary Goods	34.05	126.1	127.0	124.9	107.1	113.8	112.1
2.2 Capital Goods	8.22	108.4	93.3	95.7	56.9	91.4	88.4
2.3 Intermediate Goods	17.22	126.2	137.7	134.9	103.4	134.1	132.2
2.4 Infrastructure/ Construction Goods	12.34	141.7	136.6	136.5	101.5	127.6	128.5
2.5 Consumer Durables	12.84	130.4	119.0	126.0	76.7	122.5	125.9
2.6 Consumer Non-Durables	15.33	145.5	145.3	143.8	132.6	144.0	149.9

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

(₹ Crore)

Item	Financial Year	April - October			
	2020-21 (Budget Estimates)	2020-21 (Actuals)	2019-20 (Actuals)	Percentage to Budget Estimates	
				2020-21	2019-20
	1	2	3	4	5
1 Revenue Receipts	**2020926**	**691903**	**907634**	**34.2**	**46.2**
1.1 Tax Revenue (Net)	1635909	575697	683486	35.2	41.4
1.2 Non-Tax Revenue	385017	116206	224148	30.2	71.6
2 Non-Debt Capital Receipt	**224967**	**16397**	**26826**	**7.3**	**22.4**
2.1 Recovery of Loans	14967	10218	9461	68.3	63.8
2.2 Other Receipts	210000	6179	17365	2.9	16.5
3 Total Receipts (excluding borrowings) (1+2)	**2245893**	**708300**	**934460**	**31.5**	**44.9**
4 Revenue Expenditure	2630145	1464099	1453632	55.7	59.4
4.1 Interest Payments	708203	333456	289565	47.1	43.8
5 Capital Expenditure	412085	197355	201273	47.9	59.4
6 Total Expenditure (4+5)	**3042230**	**1661454**	**1654905**	**54.6**	**59.4**
7 Revenue Deficit (4-1)	**609219**	**772196**	**545998**	**126.8**	**112.6**
8 Fiscal Deficit (6-3)	**796337**	**953154**	**720445**	**119.7**	**102.4**
9 Gross Primary Deficit (8-4.1)	**88134**	**619698**	**430880**	**703.1**	**995.4**

Source: Controller General of Accounts, Ministry of Finance, Government of India and Union Budget 2020-21.

No. 24: Treasury Bills – Ownership Pattern

(₹ Crore)

Item	2019-20	2019	2020					
		Nov. 1	Sep. 25	Oct. 2	Oct. 9	Oct. 16	Oct. 23	Oct. 30
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	10165	18346	13536	9530	3640	3105	2885	2540
1.2 Primary Dealers	9190	15582	32019	24382	17211	15438	12884	15647
1.3 State Governments	8173	73754	55395	49395	58030	63945	68665	70665
1.4 Others	48004	79312	127184	126234	135425	134863	134685	128809
2 182-day								
2.1 Banks	66419	75756	181537	169429	163138	154693	152639	152250
2.2 Primary Dealers	43302	34123	65936	61973	56336	58086	57664	61725
2.3 State Governments	13386	6419	4323	4323	3738	3753	4033	4033
2.4 Others	22465	27804	114302	118894	125604	126706	118301	101876
3 364-day								
3.1 Banks	49660	62969	133861	133627	136507	134757	136500	135642
3.2 Primary Dealers	70672	60381	125921	123522	120865	126272	124833	129471
3.3 State Governments	11945	17930	16502	16502	16792	16862	15842	15842
3.4 Others	70576	56950	122943	122855	123033	120230	122816	119782
4 14-day Intermediate								
4.1 Banks								
4.2 Primary Dealers								
4.3 State Governments	155112	88365	102540	92390	80723	76585	117945	116438
4.4 Others	617	1547	604	831	519	308	392	392
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	423957	529327	993460	960667	960318	958709	951749	938281

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										
2020-21										
Sep. 23	12000	84	29965	12332	41	11997	12332	24330	99.17	3.3578
Oct. 7	9000	87	44438	13006	32	8994	13006	22000	99.19	3.2754
Oct. 14	9000	104	51867	11053	38	8997	11053	20050	99.20	3.2489
Oct. 21	9000	85	55599	7053	21	8997	7053	16050	99.21	3.1878
Oct. 28	9000	88	38386	8053	39	8997	8053	17050	99.21	3.1972
182-day Treasury Bills										
2020-21										
Sep. 23	13000	101	33086	6	63	12994	6	13000	98.25	3.5779
Oct. 7	3000	108	33408	1	5	2999	1	3000	98.32	3.4195
Oct. 14	3000	105	28977	0	12	3000	0	3000	98.34	3.3799
Oct. 21	3000	69	28284	0	12	3000	0	3000	98.36	3.3501
Oct. 28	3000	59	17305	0	26	3000	0	3000	98.35	3.3594
364-day Treasury Bills										
2020-21										
Sep. 23	10000	81	24373	0	50	10000	0	10000	96.41	3.7312
Oct. 7	4000	88	22127	290	5	4000	290	4290	96.62	3.5092
Oct. 14	4000	71	23441	0	5	4000	0	4000	96.65	3.4751
Oct. 21	4000	54	19345	0	16	4000	0	4000	96.67	3.4595
Oct. 28	4000	69	13985	0	33	4000	0	4000	96.67	3.4542

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
October 1, 2020	1.80-3.90	3.40
October 3, 2020	2.50-3.30	2.67
October 5, 2020	1.80-4.00	3.41
October 6, 2020	1.80-3.90	3.43
October 7, 2020	1.80-3.90	3.44
October 8, 2020	1.80-3.90	3.43
October 9, 2020	1.50-3.90	3.39
October 12, 2020	1.80-3.90	3.41
October 13, 2020	1.80-3.90	3.39
October 14, 2020	1.80-3.90	3.41
October 15, 2020	1.80-3.85	3.40
October 16, 2020	1.80-3.85	3.34
October 17, 2020	2.50-3.30	2.69
October 19, 2020	1.80-3.80	3.36
October 20, 2020	1.80-3.80	3.35
October 21, 2020	1.80-3.50	3.21
October 22, 2020	1.80-3.50	3.14
October 23, 2020	1.50-3.50	3.21
October 26, 2020	1.80-3.50	3.21
October 27, 2020	1.80-3.55	3.15
October 28, 2020	1.80-3.50	3.20
October 29, 2020	1.80-3.60	3.22
October 31, 2020	2.50-4.00	3.58
November 2, 2020	1.80-3.45	3.17
November 3, 2020	1.80-3.50	3.18
November 4, 2020	1.80-3.45	3.15
November 5, 2020	1.80-3.45	3.15
November 6, 2020	1.75-3.50	3.17
November 7, 2020	2.45-3.90	3.61
November 9, 2020	1.80-3.50	3.20
November 10, 2020	1.80-3.50	3.13
November 11, 2020	1.80-3.50	3.18
November 12, 2020	1.80-3.45	3.18
November 13, 2020	1.80-3.50	3.21

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2019	2020			
	Oct. 25	Sep. 11	Sep. 25	Oct. 9	Oct. 23
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	171396.00	87710.00	75570.00	74825.00	78340.00
1.1 Issued during the fortnight (₹ Crore)	4406.72	617.75	6492.55	876.88	4634.88
2 Rate of Interest (per cent)	5.33-7.28	4.07-4.40	3.51-5.75	3.53-5.75	3.65-4.25

No. 28: Commercial Paper

Item	2019	2020			
	Oct. 31	Sep. 15	Sep. 30	Oct. 15	Oct. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	462308.75	418270.55	362310.10	395015.55	380112.20
1.1 Reported during the fortnight (₹ Crore)	80459.45	106924.35	86727.40	81950.20	40838.65
2 Rate of Interest (per cent)	5.03-14.08	3.10-8.87	3.32-11.86	3.25-11.94	3.19-14.19

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Crore)

Item	2019-20	2019	2020					
		Nov. 1	Sep. 25	Oct. 2	Oct. 9	Oct. 16	Oct. 23	Oct. 30
	1	2	3	4	5	6	7	8
1 Call Money	26815	18807	20575	16084	19586	20132	13824	10675
2 Notice Money	3660	5927	382	6150	323	4399	804	4481
3 Term Money	790	680	857	399	942	426	816	545
4 CBLO/TRIPARTY REPO	300691	355067	310900	358058	285175	396264	336437	397522
5 Market Repo	221719	229569	309908	413981	369855	447695	313102	350328
6 Repo in Corporate Bond	2468	1270	4666	2525	4120	9400	3099	5545
7 Forex (US $ million)	67793	70784	52906	64764	50786	41953	46714	56477
8 Govt. of India Dated Securities	93960	46843	44251	49417	40590	84843	59684	91127
9 State Govt. Securities	5800	2596	3902	6628	6404	6259	4546	4932
10 Treasury Bills								
10.1 91-Day	3720	1093	13686	11182	7424	5547	5238	5243
10.2 182-Day	2380	1785	6978	9720	3399	7254	2112	4644
10.3 364-Day	2900	1865	1373	1955	5209	1720	2841	2662
10.4 Cash Management Bills	2310							
11 Total Govt. Securities (8+9+10)	111070	54183	70190	78901	63026	105624	74420	108608
11.1 RBI	–	3	2059	3570	6088	4334	3265	429

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	2019-20		2019-20 (Apr.-Oct.)		2020-21 (Apr.-Oct.) *		Oct. 2019		Oct. 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	**72**	**64926**	**48**	**59331**	**39**	**80719**	**6**	**333**	**15**	**3837**
1A Premium	70	43259	47	37967	39	77315	5	283	15	3747
1.1 Public	57	9867	37	8076	25	20175	4	98	12	3284
1.1.1 Premium	55	9434	36	7929	25	17540	3	78	12	3224
1.2 Rights	15	55059	11	51255	14	60544	2	235	3	553
1.2.1 Premium	15	33825	11	30038	14	59775	2	205	3	524
2 Preference Shares	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
2.1 Public	–	–	–	–	–	–	–	–	–	–
2.2 Rights	–	–	–	–	–	–	–	–	–	–
3 Bonds & Debentures	**34**	**14984**	**23**	**8766**	**7**	**1332**	**3**	**973**	**1**	**300**
3.1 Convertible	–	–	–	–	–	–	–	–	–	–
3.1.1 Public	–	–	–	–	–	–	–	–	–	–
3.1.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2 Non-Convertible	34	14984	23	8766	7	1332	3	973	1	300
3.2.1 Public	34	14984	23	8766	7	1332	3	973	1	300
3.2.2 Rights	–	–	–	–	–	–	–	–	–	–
4 Total(1+2+3)	**106**	**79910**	**71**	**68097**	**46**	**82050**	**9**	**1306**	**16**	**4137**
4.1 Public	91	24851	60	16842	32	21507	7	1071	13	3584
4.2 Rights	15	55059	11	51255	14	60544	2	235	3	553

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

Source : Securities and Exchange Board of India.

* : Data is Provisional

External Sector

No. 31: Foreign Trade

Item	Unit	2019-20	2019	2020				
			Oct.	Jun.	Jul.	Aug.	Sep.	Oct.
		1	2	3	4	5	6	7
1 Exports	₹ Crore	2219854	186358	166384	177954	170329	202583	182846
	US $ Million	313361	26233	21972	23729	22810	27569	24891
1.1 Oil	₹ Crore	292340	24467	14318	13146	14292	26511	12134
	US $ Million	41289	3444	1891	1753	1914	3608	1652
1.2 Non-oil	₹ Crore	1927514	161892	152067	164808	156037	176072	170712
	US $ Million	272072	22789	20081	21976	20896	23961	23239
2 Imports	₹ Crore	3360954	269853	161447	213563	220087	222699	246857
	US $ Million	474709	37986	21320	28478	29474	30307	33605
2.1 Oil	₹ Crore	925168	69111	37618	48990	48092	42808	43935
	US $ Million	130550	9729	4968	6533	6441	5826	5981
2.2 Non-oil	₹ Crore	2435787	200742	123830	164574	171994	179892	202921
	US $ Million	344159	28258	16352	21945	23033	24481	27624
3 Trade Balance	₹ Crore	-1141100	-83495	4937	-35610	-49758	-20116	-64011
	US $ Million	-161348	-11753	652	-4748	-6664	-2738	-8714
3.1 Oil	₹ Crore	-632828	-44645	-23300	-35844	-33800	-16297	-31801
	US $ Million	-89262	-6284	-3077	-4780	-4526	-2218	-4329
3.2 Non-oil	₹ Crore	-508273	-38850	28237	234	-15958	-3819	-32209
	US $ Million	-72087	-5469	3729	31	-2137	-520	-4385

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

No. 32: Foreign Exchange Reserves

Item	Unit	2019	2020					
		Nov. 15	Oct. 9	Oct. 16	Oct. 23	Oct. 30	Nov. 6	Nov. 13
		1	2	3	4	5	6	7
1 Total Reserves	**₹ Crore**	**3219968**	**4034267**	**4071872**	**4126040**	**4155181**	**4218823**	**4274151**
	US $ Million	**448249**	**551505**	**555120**	**560532**	**560715**	**568494**	**572771**
1.1 Foreign Currency Assets	₹ Crore	2991738	3721726	3757930	3809474	3841209	3894208	3956961
	US $ Million	416472	508783	512322	517524	518339	524742	530268
1.2 Gold	₹ Crore	191868	267715	269084	271325	268701	278941	271280
	US $ Million	26709	36598	36685	36860	36259	37587	36354
1.3 SDRs	SDRs Million	1046	1048	1048	1048	1048	1048	1049
	₹ Crore	10309	10826	10855	10949	10980	11046	11103
	US $ Million	1435	1480	1480	1487	1482	1488	1488
1.4 Reserve Tranche Position in IMF	₹ Crore	26053	34000	34003	34292	34291	34628	34807
	US $ Million	3633	4644	4634	4661	4636	4676	4661

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

No. 33: NRI Deposits

(US$ Million)

Scheme	Outstanding				Flows	
	2019-20	2019	2020		2019-20	2020-21
		Oct.	Sep.	Oct.	Apr.-Oct.	Apr.-Oct.
	1	2	3	4	5	6
1 NRI Deposits	**130581**	**133720**	**137293**	**137959**	**6045**	**5989**
1.1 FCNR(B)	24244	24710	22291	21955	1540	-2289
1.2 NR(E)RA	90367	93045	98101	98992	3376	7434
1.3 NRO	15969	15965	16901	17012	1128	844

No. 34: Foreign Investment Inflows

(US$ Million)

Item	2019-20	2019-20	2020-21	2019	2020	
		Apr.-Oct.	Apr.-Oct.	Oct.	Sep.	Oct.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1–1.1.2)	**43013**	**23953**	**27494**	**2646**	**2380**	**4627**
1.1.1 Direct Investment to India (1.1.1.1–1. 1.1.2)	**56006**	**31651**	**32870**	**4064**	**3257**	**5109**
1.1.1.1 Gross Inflows/Gross Investments	**74390**	**42062**	**46822**	**6016**	**4282**	**6871**
1.1.1.1.1 Equity	51734	30109	36232	3330	3021	5451
1.1.1.1.1.1 Government (SIA/FIPB)	3265	2925	217	61	2	45
1.1.1.1.1.2 RBI	39364	22604	31244	2496	2373	4357
1.1.1.1.1.3 Acquisition of shares	7348	3778	3873	654	531	929
1.1.1.1.1.4 Equity capital of unincorporated bodies	1757	802	898	120	116	120
1.1.1.1.2 Reinvested earnings	14175	8009	8617	1197	1155	1197
1.1.1.1.3 Other capital	8482	3944	1973	1489	107	224
1.1.1.2 Repatriation/Disinvestment	**18384**	**10411**	**13952**	**1952**	**1026**	**1763**
1.1.1.2.1 Equity	18212	10319	13928	1916	1024	1754
1.1.1.2.2 Other capital	173	92	24	36	2	9
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3–1.1.2.4)	**12993**	**7698**	**5376**	**1418**	**876**	**481**
1.1.2.1 Equity capital	7572	4373	2767	1077	419	553
1.1.2.2 Reinvested Earnings	3151	1838	1846	263	263	263
1.1.2.3 Other Capital	5674	2856	2712	288	1029	487
1.1.2.4 Repatriation/Disinvestment	3403	1369	1949	209	834	821
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3–1.2.4)	**1403**	**9899**	**10853**	**2580**	**-748**	**2943**
1.2.1 GDRs/ADRs	–	–	–	–	–	–
1.2.2 FIIs	552	9843	11120	2682	-332	2998
1.2.3 Offshore funds and others	–	–	–	–	–	–
1.2.4 Portfolio investment by India	-851	-56	267	101	416	55
1 Foreign Investment Inflows	**44417**	**33852**	**38347**	**5226**	**1632**	**7571**

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

(US$ Million)

Item	2019-20	2019	2020		
		Oct.	Aug.	Sep.	Oct.
	1	2	3	4	5
1 Outward Remittances under the LRS	**18760.69**	**1523.77**	**1156.62**	**1648.17**	**938.37**
1.1 Deposit	623.37	39.57	46.55	123.46	23.34
1.2 Purchase of immovable property	86.43	8.65	5.85	8.26	3.85
1.3 Investment in equity/debt	431.41	38.80	27.37	73.61	22.80
1.4 Gift	1907.71	148.39	124.99	225.36	108.89
1.5 Donations	22.33	0.71	0.68	0.61	1.29
1.6 Travel	6955.98	578.97	303.21	358.12	272.98
1.7 Maintenance of close relatives	3439.74	256.77	232.86	416.70	162.64
1.8 Medical Treatment	33.90	3.18	1.65	2.51	3.66
1.9 Studies Abroad	4991.07	432.66	405.48	427.87	333.45
1.10 Others	268.75	16.08	7.98	11.68	5.47

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	
			November	October	November
	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	72.69	70.67	69.33
1.2 REER	114.01	116.75	117.42	119.25	116.99
2 Export-Based Weights					
2.1 NEER	74.18	74.33	73.68	71.90	70.66
2.2 REER	116.32	119.61	120.24	123.13	121.01
6-Currency Trade Based Weights					
1 Base: 2004-05 (April-March) =100					
1.1 NEER	63.07	63.59	63.28	59.58	58.53
1.2 REER	121.70	125.76	126.69	126.65	124.46
2 Base: 2017-18 (April-March) =100					
2.1 NEER	92.88	93.63	93.18	87.74	86.20
2.2 REER	94.20	97.32	98.07	98.04	96.34

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

(Amount in US$ Million)

Item	2019-20	2019	2020	
		Oct.	Sep.	Oct.
	1	2	3	4
1 Automatic Route				
1.1 Number	1292	100	99	76
1.2 Amount	38011	2877	5223	1733
2 Approval Route				
2.1 Number	41	2	-	1
2.2 Amount	14921	538	-	300
3 Total (1+2)				
3.1 Number	1333	102	99	77
3.2 Amount	52932	3415	5223	2033
4 Weighted Average Maturity (in years)	6.00	5.30	3.32	3.62
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	1.34	1.46	1.66	1.25
5.2 Interest rate range for Fixed Rate Loans	0.00-25.00	0.00-10.50	0.00-11.00	0.00-9.00

No. 38: India's Overall Balance of Payments

(US $ Million)

Item	Apr-Jun 2019			Apr-Jun 2020(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**299344**	**285360**	**13984**	**249201**	**229355**	**19846**
1 CURRENT ACCOUNT (1.1+ 1.2)	**160681**	**175686**	**-15004**	**122408**	**102634**	**19774**
1.1 MERCHANDISE	**82707**	**129481**	**-46774**	**52308**	**62326**	**-10017**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**77974**	**46204**	**31769**	**70100**	**40309**	**29791**
1.2.1 Services	52196	32120	20075	46807	26304	20503
1.2.1.1 Travel	6950	6203	747	1848	2757	-909
1.2.1.2 Transportation	5343	6104	-761	4866	4216	649
1.2.1.3 Insurance	588	409	179	565	378	186
1.2.1.4 G.n.i.e.	151	307	-155	148	330	-182
1.2.1.5 Miscellaneous	39164	19098	20066	39380	18622	20758
1.2.1.5.1 Software Services	22811	1812	20998	22622	1849	20773
1.2.1.5.2 Business Services	11475	11715	-239	11282	11514	-232
1.2.1.5.3 Financial Services	1287	519	769	1009	1062	-52
1.2.1.5.4 Communication Services	700	284	415	707	304	403
1.2.2 Transfers	19963	1999	17964	18223	1237	16986
1.2.2.1 Official	35	295	-260	27	258	-231
1.2.2.2 Private	19928	1705	18224	18196	979	17217
1.2.3 Income	5815	12085	-6270	5070	12768	-7698
1.2.3.1 Investment Income	4463	11446	-6983	3706	12098	-8392
1.2.3.2 Compensation of Employees	1352	639	713	1364	669	695
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**138298**	**109674**	**28624**	**126793**	**126241**	**552**
2.1 Foreign Investment (2.1.1+2.1.2)	**88733**	**69898**	**18835**	**74487**	**74237**	**250**
2.1.1 Foreign Direct Investment	21555	7563	13993	11973	12365	-392
2.1.1.1 In India	21171	3976	17194	11829	9735	2094
2.1.1.1.1 Equity	16665	3957	12708	6993	9725	-2732
2.1.1.1.2 Reinvested Earnings	3349		3349	3957		3957
2.1.1.1.3 Other Capital	1157	19	1138	879	10	869
2.1.1.2 Abroad	384	3586	-3202	144	2630	-2486
2.1.1.2.1 Equity	384	1592	-1208	144	1117	-972
2.1.1.2.2 Reinvested Earnings	0	788	-788	0	796	-796
2.1.1.2.3 Other Capital	0	1206	-1206	0	718	-718
2.1.2 Portfolio Investment	67178	62335	4843	62514	61872	642
2.1.2.1 In India	67073	61916	5156	61869	60772	1098
2.1.2.1.1 FIIs	67073	61916	5156	61869	60772	1098
2.1.2.1.1.1 Equity	50491	47378	3112	52749	48334	4414
2.1.2.1.1.2 Debt	16582	14538	2044	9121	12437	-3317
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	105	419	-314	644	1100	-456
2.2 Loans (2.2.1+2.2.2+2.2.3)	**22209**	**12648**	**9561**	**18508**	**16227**	**2281**
2.2.1 External Assistance	3018	1550	1468	5735	1645	4090
2.2.1.1 By India	2	29	-27	2	27	-26
2.2.1.2 To India	3016	1521	1495	5733	1618	4116
2.2.2 Commercial Borrowings	9763	3660	6103	3756	5369	-1613
2.2.2.1 By India	881	742	140	442	1003	-562
2.2.2.2 To India	8881	2918	5963	3315	4366	-1051
2.2.3 Short Term to India	9428	7438	1990	9017	9213	-196
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	8028	7438	590	9017	8412	605
2.2.3.2 Suppliers' Credit up to 180 days	1400	0	1400	0	801	-801
2.3 Banking Capital (2.3.1+2.3.2)	**17713**	**14280**	**3433**	**17690**	**15460**	**2230**
2.3.1 Commercial Banks	17713	13897	3816	17690	14693	2997
2.3.1.1 Assets	6339	3595	2744	6865	4383	2482
2.3.1.2 Liabilities	11375	10302	1072	10825	10310	515
2.3.1.2.1 Non-Resident Deposits	10780	8026	2754	10653	7653	3000
2.3.2 Others	0	383	-383	0	767	-767
2.4 Rupee Debt Service	0	60	-60	0	55	-55
2.5 Other Capital	9643	12789	-3146	16108	20261	-4153
3 Errors & Omissions	**365**	0	**365**	0	**480**	**-480**
4 Monetary Movements (4.1+ 4.2)	0	**13984**	**-13984**	0	**19846**	**-19846**
4.1 I.M.F.				0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)		13984	-13984		19846	-19846

Note : P : Preliminary

No. 39: India's Overall Balance of Payments

(₹ Crore)

Item	Apr-Jun 2019			Apr-Jun 2020(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**2081832**	**1984578**	**97254**	**1890800**	**1740218**	**150582**
1 CURRENT ACCOUNT (1.1+ 1.2)	**1117480**	**1221831**	**-104351**	**928766**	**778731**	**150034**
1.1 MERCHANDISE	**575199**	**900495**	**-325296**	**396887**	**472892**	**-76006**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**542281**	**321335**	**220945**	**531879**	**305839**	**226040**
1.2.1 Services	363004	223387	139617	355144	199578	155566
1.2.1.1 Travel	48335	43139	5196	14024	20918	-6894
1.2.1.2 Transportation	37157	42451	-5294	36918	31992	4926
1.2.1.3 Insurance	4088	2846	1242	4286	2872	1415
1.2.1.4 G.n.i.e.	1052	2133	-1081	1123	2504	-1381
1.2.1.5 Miscellaneous	272372	132817	139554	298793	141293	157500
1.2.1.5.1 Software Services	158639	12604	146036	171642	14027	157615
1.2.1.5.2 Business Services	79808	81470	-1663	85604	87365	-1761
1.2.1.5.3 Financial Services	8953	3608	5346	7659	8056	-396
1.2.1.5.4 Communication Services	4865	1976	2889	5364	2309	3055
1.2.2 Transfers	138837	13904	124933	138268	9387	128881
1.2.2.1 Official	242	2048	-1806	205	1959	-1754
1.2.2.2 Private	138595	11855	126740	138063	7428	130635
1.2.3 Income	40440	84045	-43605	38467	96874	-58407
1.2.3.1 Investment Income	31039	79602	-48563	28120	91796	-63677
1.2.3.2 Compensation of Employees	9401	4443	4958	10347	5077	5270
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**961814**	**762747**	**199067**	**962034**	**957847**	**4187**
2.1 Foreign Investment (2.1.1+2.1.2)	**617107**	**486115**	**130992**	**565164**	**563268**	**1895**
2.1.1 Foreign Direct Investment	149908	52595	97313	90846	93819	-2973
2.1.1.1 In India	147234	27655	119579	89752	73864	15889
2.1.1.1.1 Equity	115899	27522	88377	53061	73787	-20726
2.1.1.1.2 Reinvested Earnings	23291	0	23291	30021	0	30021
2.1.1.1.3 Other Capital	8045	133	7911	6671	77	6594
2.1.1.2 Abroad	2673	24939	-22266	1094	19955	-18862
2.1.1.2.1 Equity	2673	11075	-8402	1094	8472	-7378
2.1.1.2.2 Reinvested Earnings	0	5478	-5478	0	6038	-6038
2.1.1.2.3 Other Capital	0	8386	-8386	0	5446	-5446
2.1.2 Portfolio Investment	467199	433520	33679	474318	469449	4869
2.1.2.1 In India	466467	430607	35860	469430	461102	8328
2.1.2.1.1 FIIs	466467	430607	35860	469430	461102	8328
2.1.2.1.1.1 Equity	351144	329501	21644	400227	366734	33493
2.1.2.1.1.2 Debt	115323	101107	14216	69203	94368	-25165
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	732	2913	-2181	4888	8347	-3459
2.2 Loans (2.2.1+2.2.2+2.2.3)	**154456**	**87960**	**66495**	**140429**	**123124**	**17305**
2.2.1 External Assistance	20988	10780	10208	43513	12481	31031
2.2.1.1 By India	14	201	-187	12	208	-197
2.2.1.2 To India	20974	10579	10395	43501	12273	31228
2.2.2 Commercial Borrowings	67896	25451	42446	28501	40739	-12238
2.2.2.1 By India	6131	5157	974	3350	7612	-4262
2.2.2.2 To India	61766	20294	41472	25151	33127	-7976
2.2.3 Short Term to India	65571	51730	13841	68416	69904	-1488
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	55835	51730	4105	68416	63825	4591
2.2.3.2 Suppliers' Credit up to 180 days	9737	0	9737	0	6079	-6079
2.3 Banking Capital (2.3.1+2.3.2)	**123189**	**99311**	**23878**	**134220**	**117303**	**16917**
2.3.1 Commercial Banks	123189	96648	26540	134220	111481	22739
2.3.1.1 Assets	44083	25000	19082	52088	33257	18831
2.3.1.2 Liabilities	79106	71648	7458	82132	78223	3908
2.3.1.2.1 Non-Resident Deposits	74973	55820	19153	80826	58063	22763
2.3.2 Others	0	2662	-2662	0	5823	-5823
2.4 Rupee Debt Service	0	418	-418	0	419	-419
2.5 Other Capital	67063	88944	-21881	122221	153732	-31511
3 Errors & Omissions	**2538**	0	**2538**	0	**3640**	**-3640**
4 Monetary Movements (4.1+ 4.2)	0	**97254**	**-97254**	0	**150582**	**-150582**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	97254	-97254	0	150582	-150582

Note : P: Preliminary

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

(US $ Million)

Item	Apr-Jun 2019			Apr-Jun 2020(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**160681**	**175657**	**-14977**	**122408**	**102610**	**19798**
1.A Goods and Services (1.A.a+1.A.b)	**134903**	**161602**	**-26699**	**99115**	**88629**	**10486**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**82707**	**129481**	**-46774**	**52308**	**62326**	**-10017**
1.A.a.1 General merchandise on a BOP basis	82183	118031	-35848	52172	61638	-9466
1.A.a.2 Net exports of goods under merchanting	524	0	524	137	0	137
1.A.a.3 Nonmonetary gold		11450	-11450	0	688	-688
1.A.b Services (1.A.b.1 to 1.A.b.13)	**52196**	**32120**	**20075**	**46807**	**26304**	**20503**
1.A.b.1 Manufacturing services on physical inputs owned by others	33	18	14	77	6	71
1.A.b.2 Maintenance and repair services n.i.e.	45	413	-368	32	128	-97
1.A.b.3 Transport	5343	6104	-761	4866	4216	649
1.A.b.4 Travel	6950	6203	747	1848	2757	-909
1.A.b.5 Construction	754	754	0	659	625	34
1.A.b.6 Insurance and pension services	588	409	179	565	378	186
1.A.b.7 Financial services	1287	519	769	1009	1062	-52
1.A.b.8 Charges for the use of intellectual property n.i.e.	319	2091	-1771	399	1847	-1448
1.A.b.9 Telecommunications, computer, and information services	23604	2207	21397	23395	2269	21126
1.A.b.10 Other business services	11475	11715	-239	11282	11514	-232
1.A.b.11 Personal, cultural, and recreational services	532	631	-99	500	347	153
1.A.b.12 Government goods and services n.i.e.	151	307	-155	148	330	-182
1.A.b.13 Others n.i.e.	1114	750	364	2026	823	1203
1.B Primary Income (1.B.1 to 1.B.3)	**5815**	**12085**	**-6270**	**5070**	**12768**	**-7698**
1.B.1 Compensation of employees	1352	639	713	1364	669	695
1.B.2 Investment income	3247	11246	-7999	3096	11916	-8820
1.B.2.1 Direct investment	1607	4790	-3183	1349	7410	-6061
1.B.2.2 Portfolio investment	46	2503	-2457	24	1222	-1198
1.B.2.3 Other investment	163	3938	-3774	66	3280	-3214
1.B.2.4 Reserve assets	1431	15	1415	1657	4	1653
1.B.3 Other primary income	1216	200	1016	610	182	428
1.C Secondary Income (1.C.1+1.C.2)	**19963**	**1971**	**17992**	**18223**	**1212**	**17010**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	19928	1705	18224	18196	979	17217
1.C.1.1 Personal transfers (Current transfers between resident and/	19303	1217	18086	17596	739	16857
1.C.1.2 Other current transfers	625	487	138	600	240	360
1.C.2 General government	34	266	-232	26	234	-207
2 Capital Account (2.1+2.2)	**87**	**909**	**-822**	**91**	**871**	**-780**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	11	824	-813	5	790	-786
2.2 Capital transfers	76	85	-9	86	81	5
3 Financial Account (3.1 to 3.5)	**138212**	**122778**	**15434**	**126703**	**145241**	**-18538**
3.1 Direct Investment (3.1A+3.1B)	**21555**	**7563**	**13993**	**11973**	**12365**	**-392**
3.1.A Direct Investment in India	21171	3976	17194	11829	9735	2094
3.1.A.1 Equity and investment fund shares	20014	3957	16057	10950	9725	1225
3.1.A.1.1 Equity other than reinvestment of earnings	16665	3957	12708	6993	9725	-2732
3.1.A.1.2 Reinvestment of earnings	3349		3349	3957	0	3957
3.1.A.2 Debt instruments	1157	19	1138	879	10	869
3.1.A.2.1 Direct investor in direct investment enterprises	1157	19	1138	879	10	869
3.1.B Direct Investment by India	384	3586	-3202	144	2630	-2486
3.1.B.1 Equity and investment fund shares	384	2380	-1996	144	1912	-1768
3.1.B.1.1 Equity other than reinvestment of earnings	384	1592	-1208	144	1117	-972
3.1.B.1.2 Reinvestment of earnings		788	-788	0	796	-796
3.1.B.2 Debt instruments	0	1206	-1206	0	718	-718
3.1.B.2.1 Direct investor in direct investment enterprises		1206	-1206	0	718	-718
3.2 Portfolio Investment	**67178**	**62335**	**4843**	**62514**	**61872**	**642**
3.2.A Portfolio Investment in India	67073	61916	5156	61869	60772	1098
3.2.1 Equity and investment fund shares	50491	47378	3112	52749	48334	4414
3.2.2 Debt securities	16582	14538	2044	9121	12437	-3317
3.2.B Portfolio Investment by India	105	419	-314	644	1100	-456
3.3 Financial derivatives (other than reserves) and employee stock options	**6703**	**5182**	**1521**	**11241**	**11303**	**-63**
3.4 Other investment	**42776**	**33714**	**9061**	**40975**	**39854**	**1121**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	10780	8409	2371	10653	8420	2233
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	383	-383	0	767	-767
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	10780	8026	2754	10653	7653	3000
3.4.2.3 General government				0	0	0
3.4.2.4 Other sectors				0	0	0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	19714	11080	8633	16528	14054	2474
3.4.3.A Loans to India	18830	10310	8520	16085	13024	3061
3.4.3.B Loans by India	884	770	113	443	1031	-588
3.4.4 Insurance, pension, and standardized guarantee schemes	46	176	-131	40	47	-7
3.4.5 Trade credit and advances	9428	7438	1990	9017	9213	-196
3.4.6 Other accounts receivable/payable - other	2808	6611	-3803	4737	8119	-3382
3.4.7 Special drawing rights			0	0	0	0
3.5 Reserve assets	0	**13984**	**-13984**	0	**19846**	**-19846**
3.5.1 Monetary gold				0	0	0
3.5.2 Special drawing rights n.a.				0	0	0
3.5.3 Reserve position in the IMF n.a.				0	0	0
3.5.4 Other reserve assets (Foreign Currency Assets)	0	13984	-13984	0	19846	-19846
4 Total assets/liabilities	**138212**	**122778**	**15434**	**126703**	**145241**	**-18538**
4.1 Equity and investment fund shares	77743	59493	18250	75768	72422	3346
4.2 Debt instruments	57661	42691	14971	46198	44853	1345
4.3 Other financial assets and liabilities	2808	20594	-17787	4737	27966	-23228
5 Net errors and omissions	**365**		**365**	0	**480**	**-480**

Note : P : Preliminary

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

(₹ Crore)

Item	Apr-Jun 2019			Apr-Jun 2020(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**1117477**	**1221634**	**-104157**	**928760**	**778544**	**150216**
1.A Goods and Services (1.A.a+1.A.b)	**938203**	**1123882**	**-185679**	**752031**	**672471**	**79560**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**575199**	**900495**	**-325296**	**396887**	**472892**	**-76006**
1.A.a.1 General merchandise on a BOP basis	571553	820866	-249314	395848	467673	-71825
1.A.a.2 Net exports of goods under merchanting	3646	0	3646	1038	0	1038
1.A.a.3 Nonmonetary gold	0	79629	-79629	0	5219	-5219
1.A.b Services (1.A.b.1 to 1.A.b.13)	**363004**	**223387**	**139617**	**355144**	**199578**	**155566**
1.A.b.1 Manufacturing services on physical inputs owned by others	227	127	100	588	45	542
1.A.b.2 Maintenance and repair services n.i.e.	312	2872	-2560	241	975	-733
1.A.b.3 Transport	37157	42451	-5294	36918	31992	4926
1.A.b.4 Travel	48335	43139	5196	14024	20918	-6894
1.A.b.5 Construction	5245	5244	1	5003	4743	260
1.A.b.6 Insurance and pension services	4088	2846	1242	4286	2872	1415
1.A.b.7 Financial services	8953	3608	5346	7659	8056	-396
1.A.b.8 Charges for the use of intellectual property n.i.e.	2221	14539	-12318	3026	14016	-10990
1.A.b.9 Telecommunications, computer, and information services	164158	15349	148809	177507	17215	160292
1.A.b.10 Other business services	79808	81470	-1663	85604	87365	-1761
1.A.b.11 Personal, cultural, and recreational services	3700	4390	-690	3792	2632	1160
1.A.b.12 Government goods and services n.i.e.	1052	2133	-1081	1123	2504	-1381
1.A.b.13 Others n.i.e.	7747	5217	2529	15373	6247	9126
1.B Primary Income (1.B.1 to 1.B.3)	**40440**	**84045**	**-43605**	**38467**	**96874**	**-58407**
1.B.1 Compensation of employees	9401	4443	4958	10347	5077	5270
1.B.2 Investment income	22585	78213	-55628	23494	90414	-66921
1.B.2.1 Direct investment	11179	33314	-22134	10234	56223	-45989
1.B.2.2 Portfolio investment	321	17407	-17086	185	9273	-9088
1.B.2.3 Other investment	1136	27386	-26250	500	24885	-24385
1.B.2.4 Reserve assets	9949	107	9842	12574	34	12540
1.B.3 Other primary income	8454	1389	7065	4626	1382	3244
1.C Secondary Income (1.C.1+1.C.2)	**138835**	**13707**	**125128**	**138262**	**9200**	**129063**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	138595	11855	126740	138063	7428	130635
1.C.1.1 Personal transfers (Current transfers between resident and/	134248	8465	125782	133511	5606	127905
1.C.1.2 Other current transfers	4347	3390	957	4553	1822	2731
1.C.2 General government	239	1852	-1612	199	1772	-1573
2 Capital Account (2.1+2.2)	**603**	**6322**	**-5719**	**690**	**6611**	**-5921**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	76	5731	-5655	34	5996	-5961
2.2 Capital transfers	527	591	-64	656	615	41
3 Financial Account (3.1 to 3.5)	**961214**	**853875**	**107338**	**961350**	**1102005**	**-140655**
3.1 Direct Investment (3.1A+3.1B)	**149908**	**52595**	**97313**	**90846**	**93819**	**-2973**
3.1.A Direct Investment in India	147234	27655	119579	89752	73864	15889
3.1.A.1 Equity and investment fund shares	139190	27522	111668	83082	73787	9295
3.1.A.1.1 Equity other than reinvestment of earnings	115899	27522	88377	53061	73787	-20726
3.1.A.1.2 Reinvestment of earnings	23291	0	23291	30021	0	30021
3.1.A.2 Debt instruments	8045	133	7911	6671	77	6594
3.1.A.2.1 Direct investor in direct investment enterprises	8045	133	7911	6671	77	6594
3.1.B Direct Investment by India	2673	24939	-22266	1094	19955	-18862
3.1.B.1 Equity and investment fund shares	2673	16553	-13880	1094	14510	-13416
3.1.B.1.1 Equity other than reinvestment of earnings	2673	11075	-8402	1094	8472	-7378
3.1.B.1.2 Reinvestment of earnings	0	5478	-5478	0	6038	-6038
3.1.B.2 Debt instruments	0	8386	-8386	0	5446	-5446
3.1.B.2.1 Direct investor in direct investment enterprises	0	8386	-8386	0	5446	-5446
3.2 Portfolio Investment	**467199**	**433520**	**33679**	**474318**	**469449**	**4869**
3.2.A Portfolio Investment in India	466467	430607	35860	469430	461102	8328
3.2.1 Equity and investment fund shares	351144	329501	21644	400227	366734	33493
3.2.2 Debt securities	115323	101107	14216	69203	94368	-25165
3.2.B Portfolio Investment by India	732	2913	-2181	4888	8347	-3459
3.3 Financial derivatives (other than reserves) and employee stock options	**46618**	**36037**	**10581**	**85289**	**85765**	**-476**
3.4 Other investment	**297489**	**234470**	**63019**	**310898**	**302390**	**8507**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	74973	58482	16490	80826	63886	16940
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	2662	-2662	0	5823	-5823
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	74973	55820	19153	80826	58063	22763
3.4.2.3 General government	0	0	0			
3.4.2.4 Other sectors	0	0	0			
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	137100	77059	60042	125407	106637	18770
3.4.3.A Loans to India	130956	71701	59255	122045	98817	23228
3.4.3.B Loans by India	6145	5358	787	3361	7820	-4459
3.4.4 Insurance, pension, and standardized guarantee schemes	318	1226	-908	306	358	-53
3.4.5 Trade credit and advances	65571	51730	13841	68416	69904	-1488
3.4.6 Other accounts receivable/payable - other	19527	45974	-26447	35943	61605	-25662
3.4.7 Special drawing rights	0	0	0			
3.5 Reserve assets	**0**	**97254**	**-97254**	**0**	**150582**	**-150582**
3.5.1 Monetary gold	0	0	0			
3.5.2 Special drawing rights n.a.	0	0	0			
3.5.3 Reserve position in the IMF n.a.	0	0	0			
3.5.4 Other reserve assets (Foreign Currency Assets)	0	97254	-97254	0	150582	-150582
4 Total assets/liabilities	**961214**	**853875**	**107338**	**961350**	**1102005**	**-140655**
4.1 Equity and investment fund shares	540675	413751	126924	574885	549501	25384
4.2 Debt instruments	401012	296897	104115	350523	340318	10205
4.3 Other financial assets and liabilities	19527	143227	-123700	35943	212187	-176244
5 Net errors and omissions	**2538**	**0**	**2538**	**0**	**3640**	**-3640**

Note : P: Preliminary

No. 42: International Investment Position

(US$ Million)

Item	As on Financial Year /Quarter End							
	2019-20		2019		2020			
			Jun.		Mar.		Jun.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1 Direct Investment Abroad/in India	182957	418239	173165	417609	182957	418239	185442	419312
1.1 Equity Capital and Reinvested Earnings	118442	395426	113118	399712	118442	395426	120210	395918
1.2 Other Capital	64515	22813	60047	17897	64515	22813	65233	23394
2 Portfolio Investment	3847	246701	5012	266822	3847	246701	4303	241581
2.1 Equity	602	134778	1806	151162	602	134778	824	138961
2.2 Debt	3246	111923	3206	115660	3246	111923	3480	102621
3 Other Investment	52422	427438	54140	429324	52422	427438	52489	432702
3.1 Trade Credit	1460	104277	2121	107226	1460	104277	1233	103988
3.2 Loan	6741	179767	9762	173725	6741	179767	7435	184385
3.3 Currency and Deposits	26011	130761	24169	133846	26011	130761	27741	132942
3.4 Other Assets/Liabilities	18210	12634	18089	14529	18210	12634	16080	11387
4 Reserves	477807		429837		477807		505702	
5 Total Assets/ Liabilities	717033	1092378	662155	1113756	717033	1092378	747937	1093595
6 IIP (Assets - Liabilities)		-375345		-451601		-375345		-345658

Payment and Settlement Systems

No.43: Payment System Indicators

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

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2019-20	2019	2020		FY 2019-20	2019	2020	
		Oct.	Sep.	Oct.		Oct.	Sep.	Oct.
	1	2	3	4	5	6	7	8
A. Settlement Systems								
Financial Market Infrastructures (FMIs)								
1 CCIL Operated Systems (1.1 to 1.3)	–	–	2.70	2.44	–	–	13397758	12416671
1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)	–	–	1.08	1.06	–	–	9021412	8849617
1.1.1 Outright	–	–	0.61	0.61	–	–	881023	900488
1.1.2 Repo	–	–	0.29	0.27	–	–	4115039	4108317
1.1.3 Tri-party Repo	–	–	0.19	0.18	–	–	4025350	3840812
1.2 Forex Clearing	–	–	1.60	1.36	–	–	4238877	3435633
1.3 Rupee Derivatives @	–	–	0.03	0.02	–	–	137470	131420
B. Payment Systems								
I Financial Market Infrastructures (FMIs)	–	–	–	–	–	–	–	–
1 Credit Transfers - RTGS (1.1 to 1.2)	–	–	130.11	138.22	–	–	9489066	8496046
1.1 Customer Transactions	–	–	128.49	136.54	–	–	7993814	7226105
1.2 Interbank Transactions	–	–	1.61	1.68	–	–	1495252	1269941
II Retail								
2 Credit Transfers - Retail (2.1 to 2.7)	–	–	25506.62	28646.23	–	–	2817678	2993114
2.1 AePS (Fund Transfers) @	–	–	0.96	1.02	–	–	51	57
2.2 APBS $	–	–	1059.85	961.85	–	–	6243	5531
2.3 IMPS	–	–	2796.08	3189.72	–	–	248662	274645
2.4 NACH Cr $	–	–	1179.79	1015.80	–	–	68176	91386
2.5 NEFT	–	–	2468.27	2761.65	–	–	2165515	2235389
2.6 UPI @	–	–	18001.67	20716.19	–	–	329032	386107
2.6.1 of which USSD @	–	–	0.89	0.97	–	–	14	16
3 Debit Transfers and Direct Debits (3.1 to 3.4)	–	–	926.42	920.15	–	–	78240	79305
3.1 BHIM Aadhaar Pay @	–	–	15.28	10.55	–	–	205	192
3.2 NACH Dr $	–	–	857.43	848.34	–	–	77958	79022
3.3 NETC (linked to bank account) @	–	–	53.71	61.26	–	–	77	91
4 Card Payments (4.1 to 4.2)	–	–	5110.11	5863.58	–	–	126220	168169
4.1 Credit Cards (4.1.1 to 4.1.2)	–	–	1486.71	1718.03	–	–	51134	64652
4.1.1 PoS based $	–	–	713.37	818.33	–	–	21986	26956
4.1.2 Others $	–	–	773.33	899.70	–	–	29148	37696
4.2 Debit Cards (4.2.1 to 4.2.1)	–	–	3623.40	4145.55	–	–	75086	103517
4.2.1 PoS based $	–	–	1758.83	1983.98	–	–	30422	37110
4.2.2 Others $	–	–	1864.57	2161.57	–	–	44664	66408
5 Prepaid Payment Instruments (5.1 to 5.2)	–	–	4625.96	4589.96	–	–	16683	17802
5.1 Wallets	–	–	3616.58	3631.45	–	–	13258	13696
5.2 Cards (5.2.1 to 5.2.2)	–	–	1009.37	958.51	–	–	3425	4106
5.2.1 PoS based $	–	–	32.50	37.11	–	–	910	1045
5.2.2 Others $	–	–	976.87	921.40	–	–	2515	3061
6 Paper-based Instruments (6.1 to 6.2)	–	–	612.71	643.08	–	–	485243	524090
6.1 CTS (NPCI Managed)	–	–	612.63	643.08	–	–	485114	524090
6.2 Others	–	–	0.08	0.00	–	–	128	–
Total - Retail Payments (2+3+4+5+6)	–	–	36781.81	40663.00	–	–	3524064	3782480
Total Payments (1+2+3+4+5+6)	–	–	36911.91	40801.21	–	–	13013130	12278526
Total Digital Payments (1+2+3+4+5)	–	–	36299.21	40158.13	–	–	12527887	11754436

PART II - Payment Modes and Channels

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2019-20	2019	2020		FY 2019-20	2019	2020	
		Oct.	Sep.	Oct.		Oct.	Sep.	Oct.
	1	2	3	4	5	6	7	8
A. Other Payment Channels								
1 Mobile Payments (mobile app based) (1.1 to 1.2)	–	–	20919.08	22713.54	–	–	704109	796402
1.1 Intra-bank $	–	–	1907.78	2103.16	–	–	145405	158866
1.2 Inter-bank $	–	–	19011.30	20610.38	–	–	558703	637535
2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)	–	–	2822.04	2977.78	–	–	3436124	3407315
2.1 Intra-bank @	–	–	594.83	619.27	–	–	1678942	1646090
2.2 Inter-bank @	–	–	2227.20	2358.51	–	–	1757182	1761225
B. ATMs								
3 Cash Withdrawal at ATMs $ (3.1 to 3.3)	–	–	5094.80	5688.24	–	–	243667	271622
3.1 Using Credit Cards $	–	–	4.36	4.85	–	–	217	240
3.2 Using Debit Cards $	–	–	5067.91	5658.36	–	–	242649	270488
3.3 Using Pre-paid Cards $	–	–	22.53	25.04	–	–	801	893
4 Cash Withdrawal at PoS $ (4.1 to 4.2)	–	–	33.62	42.54	–	–	123	156
4.1 Using Debit Cards $	–	–	29.39	29.24	–	–	118	129
4.2 Using Pre-paid Cards $	–	–	4.23	13.30	–	–	5	27
5 Cash Withrawal at Micro ATMs @	–	–	717.65	720.69	–	–	17096	18354
5.1 AePS @	–	–	717.65	720.69	–	–	17096	18354

PART III - Payment Infrastructures (Lakh)

System	FY 2019-20	2019	2020	
		Oct.	Sep.	Oct.
	1	2	3	4
Payment System Infrastructures				
1 Number of Cards (1.1 to 1.2)	–	–	9241.29	9335.85
1.1 Credit Cards	–	–	586.94	594.20
1.2 Debit Cards	–	–	8654.35	8741.65
2 Number of PPIs @ (2.1 to 2.2)	–	–	19960.47	19360.27
2.1 Wallets @	–	–	18287.99	17795.35
2.2 Cards @	–	–	1672.48	1564.92
3 Number of ATMs (3.1 to 3.2)	–	–	2.34	2.34
3.1 Bank owned ATMs $	–	–	2.10	2.10
3.2 White Label ATMs $	–	–	0.24	0.24
4 Number of Micro ATMs @	–	–	3.28	3.49
5 Number of PoS Terminals	–	–	51.86	53.94
6 Bharat QR @	–	–	22.99	26.05
7 UPI QR *	–	–	604.07	657.45

@: New inclusion w.e.f. November 2019
$: Inclusion separately initiated from November 2019 - would have been part of other items hitherto.
*: New inclusion w.e.f. September 2020; Includes only static UPI QR Code

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

Occasional Series

No. 44: Small Savings

(₹ Crore)

Scheme		2018-19	2019		2020	
			Feb.	Dec.	Jan.	Feb.
		1	2	3	4	5
1 Small Savings	**Receipts**	**115714**	**9839**	**15814**	**15184**	**16911**
	Outstanding	**918459**	**899191**	**1015010**	**1030037**	**1046766**
1.1 Total Deposits	**Receipts**	**91108**	**7130**	**12117**	**11091**	**11460**
	Outstanding	**618418**	**606920**	**693812**	**704903**	**716363**
1.1.1 Post Office Saving Bank Deposits	Receipts	31037	2360	3455	3106	2690
	Outstanding	140247	134863	150462	153568	156258
1.1.2 MGNREG	Receipts					
	Outstanding					
1.1.3 National Saving Scheme, 1987	Receipts	-31	-19	-31	-25	-20
	Outstanding	3107	2877	2984	2959	2939
1.1.4 National Saving Scheme, 1992	Receipts	53	0	-827	-2	-3
	Outstanding	10	-8	-18	-20	-23
1.1.5 Monthly Income Scheme	Receipts	10967	928	1753	1712	1887
	Outstanding	192658	191653	203460	205172	207059
1.1.6 Senior Citizen Scheme 2004	Receipts	13990	1184	2070	2133	2131
	Outstanding	55708	54446	69464	71597	73728
1.1.7 Post Office Time Deposits	Receipts	25000	2451	4296	3999	4494
	Outstanding	124292	121687	152622	156621	161115
1.1.7.1 1 year Time Deposits	Outstanding	71534	70179	86344	88247	90327
1.1.7.2 2 year Time Deposits	Outstanding	5910	5824	6749	6854	6970
1.1.7.3 3 year Time Deposits	Outstanding	6901	6910	7328	7397	7464
1.1.7.4 5 year Time Deposits	Outstanding	39947	38774	52201	54123	56354
1.1.8 Post Office Recurring Deposits	Receipts	10081	215	1401	168	281
	Outstanding	102401	101407	114842	115010	115291
1.1.9 Post Office Cumulative Time Deposits	Receipts	11	11	0	0	0
	Outstanding	-26	-26	-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**	**1732**	**3326**	**3524**	**3937**
	Outstanding	**221517**	**219257**	**240900**	**244267**	**248022**
1.2.1 National Savings Certificate VIII issue	Receipts	11318	1262	2272	2458	2619
	Outstanding	98492	94795	110050	112508	115127
1.2.2 Indira Vikas Patras	Receipts	334	3	0	0	1
	Outstanding	263	300	-289	-289	-288
1.2.3 Kisan Vikas Patras	Receipts	-18678	-1609	-971	-1713	-1120
	Outstanding	19303	21232	6782	5069	3949
1.2.4 Kisan Vikas Patras - 2014	Receipts	23018	2065	2025	2782	2452
	Outstanding	93630	91314	113273	116055	118507
1.2.5 National Saving Certificate VI issue	Receipts	93	12	0	-1	0
	Outstanding	2	-47	-179	-180	-180
1.2.6 National Saving Certificate VII issue	Receipts	-18	-1	0	-2	-15
	Outstanding	-80	-82	-82	-84	-99
1.2.7 Other Certificates	Outstanding	9907	11745	11345	11188	11006
1.3 Public Provident Fund	**Receipts**	**8539**	**977**	**371**	**569**	**1514**
	Outstanding	**78524**	**73014**	**80298**	**80867**	**82381**

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	2019		2020		
	Sep.	Dec.	Mar.	Jun.	Sep.
	1	2	3	4	5
(A) Total (in ₹. Crore)	**6314426**	**6512659**	**6486585**	**6704983**	**7137069**
1 Commercial Banks	39.66	39.05	40.41	38.98	38.55
2 Non-Bank PDs	0.42	0.39	0.39	0.36	0.34
3 Insurance Companies	24.86	24.90	25.09	26.24	25.33
4 Mutual Funds	0.77	1.53	1.43	2.02	2.42
5 Co-operative Banks	2.01	1.97	1.90	1.86	1.86
6 Financial Institutions	1.15	1.14	0.53	1.19	1.42
7 Corporates	0.92	0.84	0.81	0.78	0.94
8 Foreign Portfolio Investors	3.31	3.33	2.44	1.79	2.05
9 Provident Funds	4.87	4.93	4.72	4.96	4.77
10 RBI	14.99	14.72	15.13	14.70	15.00
11. Others	7.05	7.23	7.17	7.11	7.32
11.1 State Governments	1.99	1.97	2.05	1.99	1.86

State Governments Securities					
Category	2019		2020		
	Sep.	Dec.	Mar.	Jun.	Sep.
	1	2	3	4	5
(B) Total (in ₹. Crore)	**2905169**	**3047353**	**3265990**	**3393099**	**3564979**
1 Commercial Banks	32.53	32.46	34.99	33.54	34.60
2 Non-Bank PDs	0.72	0.64	0.76	0.74	0.54
3 Insurance Companies	33.39	32.50	31.63	30.85	30.26
4 Mutual Funds	1.12	1.20	1.14	1.74	1.96
5 Co-operative Banks	4.24	4.16	4.12	4.38	4.19
6 Financial Institutions	0.33	0.31	0.11	1.96	1.92
7 Corporates	0.28	0.31	0.30	0.31	0.39
8 Foreign Portfolio Investors	0.05	0.04	0.02	0.02	0.02
9 Provident Funds	22.36	23.66	22.22	21.70	21.31
10 RBI	0.00	0.00	0.00	0.00	0.00
11. Others	4.98	4.73	4.71	4.78	4.80
11.1 State Governments	0.16	0.17	0.18	0.18	0.18

Treasury Bills					
Category	2019		2020		
	Sep.	Dec.	Mar.	Jun.	Sep.
	1	2	3	4	5
(C) Total (in ₹. Crore)	**538041**	**514588**	**538409**	**881362**	**982286**
1 Commercial Banks	50.81	45.19	61.06	46.11	53.50
2 Non-Bank PDs	1.92	2.07	2.26	1.48	2.16
3 Insurance Companies	5.55	5.76	7.45	4.64	4.06
4 Mutual Funds	14.08	20.42	13.24	23.45	19.90
5 Co-operative Banks	2.55	2.07	2.55	1.95	1.63
6 Financial Institutions	1.82	2.12	0.58	1.67	1.34
7 Corporates	1.57	1.66	1.89	1.43	1.63
8 Foreign Portfolio Investors	0.00	0.00	0.00	0.00	0.00
9 Provident Funds	0.01	0.01	0.02	0.05	0.00
10 RBI	0.00	0.00	0.00	11.27	4.80
11. Others	21.70	20.70	10.95	7.95	10.99
11.1 State Governments	17.91	16.36	6.22	4.35	7.76

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

(₹ Crore)

Item	2015-16	2016-17	2017-18	2018-19	2019-20 RE	2020-21 BE
	1	2	3	4	5	6
1 Total Disbursements	**3760611**	**4265969**	**4515946**	**5040747**	**5875914**	**6470254**
1.1 Developmental	2201287	2537905	2635110	2882758	3486519	3818358
1.1.1 Revenue	1668250	1878417	2029044	2224367	2708218	2920507
1.1.2 Capital	412069	501213	519356	596774	694262	794599
1.1.3 Loans	120968	158275	86710	61617	84038	103252
1.2 Non-Developmental	1510810	1672646	1812455	2078276	2295105	2556504
1.2.1 Revenue	1379727	1555239	1741432	1965907	2171963	2421566
1.2.1.1 Interest Payments	648091	724448	814757	894520	969344	1091617
1.2.2 Capital	127306	115775	69370	111029	121159	132961
1.2.3 Loans	3777	1632	1654	1340	1984	1977
1.3 Others	48514	55417	68381	79713	94290	95393
2 Total Receipts	**3778049**	**4288432**	**4528422**	**5023352**	**5779396**	**6524526**
2.1 Revenue Receipts	2748374	3132201	3376416	3797731	4338225	4828088
2.1.1 Tax Receipts	2297101	2622145	2978134	3278947	3547958	3951657
2.1.1.1 Taxes on commodities and services	1440952	1652377	1853859	2030050	2157126	2436871
2.1.1.2 Taxes on Income and Property	852271	965622	1121189	1246083	1386652	1510287
2.1.1.3 Taxes of Union Territories (Without Legislature)	3878	4146	3086	2814	4180	4500
2.1.2 Non-Tax Receipts	451272	510056	398282	518783	790267	876430
2.1.2.1 Interest Receipts	35779	33220	34224	36273	33272	30911
2.2 Non-debt Capital Receipts	59827	69063	142433	140287	129507	232172
2.2.1 Recovery of Loans & Advances	16561	20942	42213	44667	62499	18302
2.2.2 Disinvestment proceeds	43266	48122	100219	95621	67008	213870
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	**952410**	**1064704**	**997097**	**1102729**	**1408183**	**1409995**
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	939662	1046708	989167	1097210	1403250	1405373
3A.1.1 Net Bank Credit to Government	231090	617123	144792	387091	518093	-----
3A.1.1.1 Net RBI Credit to Government	60472	195816	-144847	325987	190241	-----
3A.1.2 Non-Bank Credit to Government	708572	429585	844375	710119	885156	-----
3A.2 External Financing	12748	17997	7931	5519	4933	4622
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	939662	1046708	989167	1097210	1403250	1405373
3B.1.1 Market Borrowings (net)	673298	689821	794856	795845	962386	1105573
3B.1.2 Small Savings (net)	80015	35038	71222	88961	213430	213430
3B.1.3 State Provident Funds (net)	35261	45688	42351	51004	42900	42529
3B.1.4 Reserve Funds	-3322	-6436	18423	-18298	-241	2978
3B.1.5 Deposits and Advances	13470	17792	25138	66289	32949	35987
3B.1.6 Cash Balances	-17438	-22463	-12476	17395	96518	-54272
3B.1.7 Others	158378	287268	49653	96014	55309	59147
3B.2 External Financing	12748	17997	7931	5519	4933	4622
4 Total Disbursements as per cent of GDP	*27.3*	*27.7*	*26.4*	*26.6*	*28.9*	*28.8*
5 Total Receipts as per cent of GDP	*27.4*	*27.9*	*26.5*	*26.5*	*28.4*	*29.0*
6 Revenue Receipts as per cent of GDP	*20.0*	*20.3*	*19.7*	*20.0*	*21.3*	*21.5*
7 Tax Receipts as per cent of GDP	*16.7*	*17.0*	*17.4*	*17.3*	*17.4*	*17.6*
8 Gross Fiscal Deficit as per cent of GDP	*6.9*	*6.9*	*5.8*	*5.8*	*6.9*	*6.3*

…: 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 October-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	1074	31	2003	31	1216	17
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	-	-	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	602	12	-	-	-	-
6	Goa	112	27	93	19	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	-	-	236	1	-	-
9	Himachal Pradesh	-	-	573	27	244	9
10	Jammu & Kashmir UT	-	-	1135	29	402	6
11	Jharkhand	-	-	-	-	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	-	-	-	-	-	-
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	-	-	-	-	-	-
16	Manipur	42	27	273	19	36	9
17	Meghalaya	-	-	-	-	-	-
18	Mizoram	-	-	63	19	-	-
19	Nagaland	187	31	207	23	124	10
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	439	10	137	8	-	-
23	Rajasthan	1580	27	753	13	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	1067	31	1359	29	733	14
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	312	25	585	20	234	3
29	West Bengal	165	8	163	6	-	-

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

No. 48: Investments by State Governments

(₹ Crore)

Sr. No	State/Union Territory	As on end of October 2020			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	8360	822	--	-
2	Arunachal Pradesh	1513	2	--	-
3	Assam	4522	55	--	-
4	Bihar	7029	--	--	-
5	Chhattisgarh	4465	--	1	4750
6	Goa	600	302	--	-
7	Gujarat	8585	485	--	-
8	Haryana	1401	1212	--	-
9	Himachal Pradesh	--	--	--	-
10	Jammu & Kashmir UT	--	--	--	-
11	Jharkhand	89	--	--	-
12	Karnataka	4268	--	--	21500
13	Kerala	2167	--	--	-
14	Madhya Pradesh	--	926	--	-
15	Maharashtra	41486	432	--	26000
16	Manipur	381	101	--	-
17	Meghalaya	669	36	9	-
18	Mizoram	467	39	--	-
19	Nagaland	1656	33	--	-
20	Odisha	13515	1466	85	20805
21	Puducherry	296	--	--	807
22	Punjab	701	--	8	-
23	Rajasthan	--	--	129	2000
24	Tamil Nadu	6682	--	40	14678
25	Telangana	5707	1245	--	-
26	Tripura	375	9	--	-
27	Uttar Pradesh	566	--	180	-
28	Uttarakhand	3190	80	--	-
29	West Bengal	8874	539	214	-
	Total	**127565**	**7784**	**665**	**90540**

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

No. 49: Market Borrowings of State Governments

(₹ Crore)

Sr. No.	State	2018-19		2019-20		2020-21						Total amount raised, so far in 2020-21	
						August		September		October			
		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	30200	23824	42415	33444	5250	4667	7000	6417	6000	5417	37250	32584
2	Arunachal Pradesh	719	693	1366	1287	-	-	-	-	-	-	428	428
3	Assam	10595	8089	12906	10996	-	-	2300	2300	2000	2000	5300	5300
4	Bihar	14300	10903	25601	22601	4000	4000	4000	4000	4000	4000	16000	15000
5	Chhattisgarh	12900	12900	11680	10980	1300	1300	700	700	2000	1000	4000	3000
6	Goa	2350	1850	2600	2000	200	200	400	400	200	-	1700	1400
7	Gujarat	36971	27437	38900	28600	5000	4000	5500	4500	3000	1000	22780	16823
8	Haryana	21265	17970	24677	20677	3000	3000	4500	4500	2000	1200	20500	17900
9	Himachal Pradesh	4210	2108	6580	4460	-	-	-	-	1500	1500	2000	1200
10	Jammu & Kashmir UT	6684	4927	7869	6760	800	300	1405	1405	500	500	5205	3705
11	Jharkhand	5509	4023	7500	5656	-	-	-	-	2600	2600	2600	2100
12	Karnataka	39600	32183	48500	42500	7000	7000	10000	10000	8000	6000	37000	35000
13	Kerala	19500	13984	18073	12617	1000	1000	2000	2000	-	-	15930	15930
14	Madhya Pradesh	20496	15001	22371	16550	2000	2000	2000	2000	3000	3000	14000	14000
15	Maharashtra	20869	3107	48498	32998	3000	2154	14000	12000	11000	8673	59500	52450
16	Manipur	970	667	1757	1254	100	100	-	-	-	-	700	700
17	Meghalaya	1122	863	1344	1070	-	-	600	550	250	250	1050	1000
18	Mizoram	0	-123	900	745	-	-	132	132	-	-	442	342
19	Nagaland	822	355	1000	423	-	-	150	150	250	150	750	550
20	Odisha	5500	4500	7500	6500	-	-	-	-	-	-	3000	3000
21	Puducherry	825	475	970	470	-	-	225	225	125	125	350	350
22	Punjab	22115	17053	27355	18470	2250	1750	4410	3010	2785	535	14895	9945
23	Rajasthan	33178	20186	39092	24686	3450	2950	3500	3500	3000	1730	30450	23868
24	Sikkim	1088	795	809	481	-	-	148	148	-	-	615	615
25	Tamil Nadu	43125	32278	62425	49826	9250	7375	3250	2000	6000	4125	54000	46194
26	Telangana	26740	22183	37109	30697	3000	2583	4500	4083	3000	2583	25961	22627
27	Tripura	1543	1387	2928	2578	-	-	400	400	300	300	700	600
28	Uttar Pradesh	46000	33307	69703	52744	1000	-200	6000	4000	8000	5524	21500	8791
29	Uttarakhand	6300	5289	5100	4500	-	-	1500	1500	1200	1200	3700	3000
30	West Bengal	42828	30431	56992	40882	4000	3500	4500	3000	3500	2500	25500	16500
	Grand Total	478323	348643	634521	487454	55600	47679	83120	72920	74210	55912	427806	354902

- : Nil.

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

Source: Reserve Bank of India.

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 2019-20 pertains to the Provisional Estimates of National Income released by National Statistics Office on 29th May 2020. GDP for 2020-21 is from Union Budget 2020-21.
Data pertains to all States and Union Territories.
Total receipts and total expenditure exclude National Calamity Contingency Fund expenditure.
1 & 2: Data are net of repayments of the Central Government (including repayments to the NSSF) and State Governments.
1.3: Represents compensation and assignments by States to local bodies and Panchayati Raj institutions.
2: Data are net of variation in cash balances of the Central and State Governments and includes borrowing receipts of the Central and State Governments.
3A.1.1: Data as per RBI records.
3B.1.1: Borrowings through dated securities.
3B.1.2: Represent net investment in Central and State Governments' special securities by the National Small Savings Fund (NSSF).
This data may vary from previous publications due to adjustments across components with availability of new data.
3B.1.6: Include Ways and Means Advances by the Centre to the State Governments.
3B.1.7: Include Treasury Bills, loans from financial institutions, insurance and pension funds, remittances, cash balance investment account.

Table No. 47

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

Table No. 48

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

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

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

Recent Publications of the Reserve Bank of India

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