Archives of Business Research – Vol. 9, No. 10
Publication Date: October 25, 2021
DOI:10.14738/abr.910.11056.
Bijoy, K., & Shivam, S. (2021). COVID-19 and Monetary Response of Reserve Bank of India: A Critical Review. Archives of Business Research, 9(10). 209-222.

COVID-19 and Monetary Response of Reserve Bank of India: A Critical Review

Kumar Bijoy
Shaheed Sukhdev College of Business Studies, University of Delhi, India

Shaurya Shivam
Delhi Technological University, Delhi, India

ABSTRACT

The unprecedented shocks from the COVID-19 pandemic jeopardized the global economy and created an environment of Knightian uncertainty all around. This study evaluates the impact of the monetary policy responses initiated by Reserve Bank of India (RBI) to mitigate the cascading effect of the pandemic on Indian Economy. The study uses a combination of exploratory and analytic approach for evaluating the monetary policy responses initiated since January 2020. Actions of RBI are analysed under four headings namely Policy Rate Cuts, Liquidity Provisions and Credit Supports, Asset Purchases, and Regulatory Easing. It is observed that RBI has responded on all four fronts successfully which are evident through availability of sufficient liquidity and easy credit in the market for all the stakeholders like central and state governments, large corporates, MSMEs and individuals. RBI must maintain the momentum of policy response till the return of normalcy in the economy. It should also be ensured that no adverse effect appears after withdrawal of the stimulus extended as policy response against the pandemic.

Key words: COVID-19, Analytic approach, Impact analysis, Liquidity provisions, Asset purchases, Regulatory easing

INTRODUCTION

The worldwide impact of COVID-19 pandemic on human lives and their livelihood was so sudden and deeper that even advanced economies felt helplessness to limit the damage during the first wave. After viral outbreak in China on December 31, 2019, the first cross country infection got reported on January 13, 2020, at Thailand **[1]**. India identified its first case on January 27, 2020 **[2]**. On February 11, 2020, Dr. Tedros (DG of WHO) nomenclature it as COVID-19 but underestimated the gravity of the problem and took one more month to announce it as pandemic (on March 11, 2020) **[3]**. By this time, situation had worsened in so many advanced countries and even India registered its first death on March 10, 2020 **[4]**. Most of the countries declared lockdown to prevent the spread of the disease but it adversely affected their economy. Due to the workplace closure in 2020, 8.8 per cent of global working hours were lost relative to the fourth quarter of 2019, equivalent to 255 million full-time jobs. Strict containment measures lost more than 13.7% annual average working hours in India **[5]**. As per the report of Centre for Monitoring Indian Economy (CMIE) more than 10 million people lost their Job and 97% household's income declined in the COVID second wave **[6]**. The pandemic led to the worst peacetime decline in economic activity since the Great Depression of 1929 **[7]**. Globally, it became a challenge to balance between the protection of the life and maintaining the livelihood.

The earliest policy action on economic front by a global agency was on March 13, 2020, when WHO, UN Foundation and partners launched first-of-its-kind **COVID-19 Solidarity Response Fund.** The quick response by policy makers both from advanced and emerging economies helped in minimizing the life and livelihood losses. It is evident from the fact that trade in merchandise goods declined only by 5.3% against 9.2% drop as forecasted by WTO in 2020. The trade-facilitating measures related to COVID-19 implemented by WTO since the beginning of the pandemic covered an estimated USD 227 billion of goods trade **[8]**.

The abruptness and momentum of economic deterioration combined with blinding uncertainty about the degree of impact of the pandemic created an environment of Knightian uncertainty all around. Forecasting became so challenging that some advanced economy's central banks (Federal Reserve, Bank of Canada, Bank of England) suspended their forecast in initial phase of COVID shock **[7].** Financial markets faced another unique problem of **lower money multiplier effect** and liquidity challenge arising out of '**dash for cash**' behaviour. It was a widespread agreement that Monetary policy has its critical role along with Health and Fiscal Policies in driving the economy out of recession. The extensive research and multifaceted policy reaction during the Global Financial Crisis (GFC) have given confidence to handle the present situation effectively. Thus, monetary authorities responded at their earliest with a range of tools to address overlapping challenges. These tools meant for addressing both demand and supply, may be categorised under four broad heads namely: **Policy Rate Cuts, Asset Purchases, Liquidity Provisions and Credit Supports, and Regulatory Easing**.

Monetary authorities of emerging markets, like that of advanced economies, responded quickly and reduced their policy rates substantially as shown in **Fig-1** below.

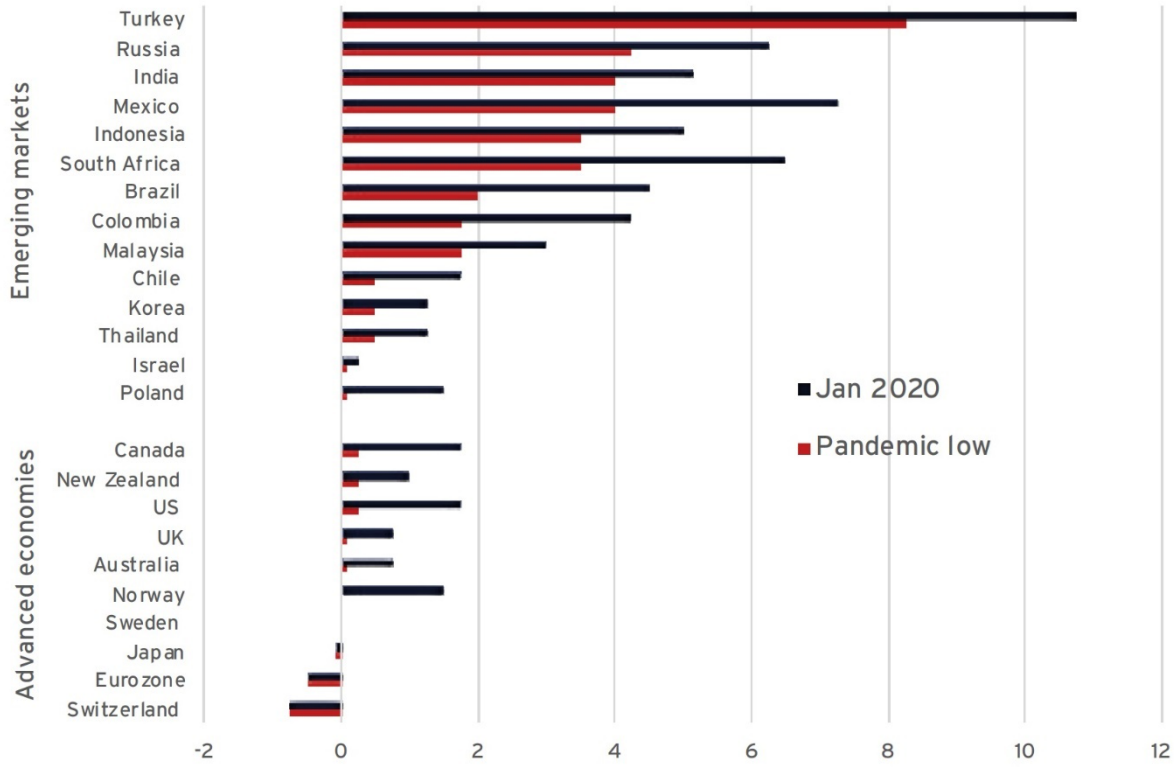

Fig-1: Central Bank Policy Rates: Pre-Covid to Pandemic Low
***Source*: Bloomberg.**

Note: Emerging market central banks are categorised based on the Bank for International Settlements' definitions of "Developed" and "Emerging/Developing."

This along with other policy measures motivated researchers to examine the monetary response against pandemic shock by various central banks specially for emerging markets on these four parameters. **[9]** analysed different policy responses addressing the potential economic damages in the G-7 countries and 24 emerging market economies. He found that both G-7 countries and emerging market economies had implemented a comprehensive fast-track fiscal, monetary, and macro-financial policy to negate the pandemic's economic impact. He observed that a series of policy measures like fiscal stimulus package, direct spending, loans, and credit facilities, refinancing schemes, swap agreement, discount loan window, tax cut on credit, short term loan extension, bridge finance, policy rate cuts, bond purchase, SMEs financing were tried by different countries. **[10]** in their working paper (no. 302) highlighted the need of effective coordination between fiscal and monetary policies for successful combat against the crisis. They also pointed out the importance of Innovative sources of financing the deficit, including money financing of fiscal programmes, a variant of "helicopter money". **[11]** in their study on the monetary policy responses of major central banks observed that how the rising public debt got financed through asset purchases by monetary authorities of many countries. They also highlighted the increasing role of centralized virtual currencies, known as Central Bank Digital Currencies (CBDCs).

India, an emerging market, and faster-growing economy minimized the life loss during its first wave of COVID spread by timely and stringent implementation of the nationwide lockdown however, not able to avoid the deep dent in the economy. GDP growth contracted sharply in first quarter of 2020-21 (-24.4%) and finally registered an average negative growth of 7.3% for the complete financial year **[12]**. However, the second wave of the pandemic in the beginning of 2021-22 created heavy casualty and blow to the incipient signs of economic recovery. The compulsion to handle the Spillovers effect of GFC a decade back and liquidity crunch during post-demonetization in 2016-17 in Indian Financial market made RBI a competent institution for handling the crisis. However, in both the occasions, Indian economic activities were marginally affected as there were no lock down. The impact of pandemic shock, which is yet to be over, is different compared to those two structural breaks in previous decade. Prime motivation of the proposed study is to examine the efficiency and effectiveness of monetary authority of India in this new emergent environment of **Knightian uncertainty.** This study is a step towards it to find the monetary responses of Reserve Bank of India on the selected four parameters as practised by the monetary authorities of advanced economies and mentioned above. The Objectives of the study are: 1. To evaluate the speed, scope, and size of monetary responses of RBI against COVID 19 and 2. To critically evaluate those responses with respect to their impact on Indian Economy.

This study is divided into five sections including introduction. The second section provides Methods and Data. Third section briefly mention the macroeconomic scenario and outlook whereas fourth section describes the Monetary Policy responses of RBI. Fifth section records the impact analysis of policy measures followed by sixth and last section which concludes.

METHODS AND DATA

It will be premature to estimate the economic damages inflicted by COVID-19 as the countries are still fighting against this invisible enemy. Therefore, this study intends to follow a combination of exploratory and analytic approach for evaluating the monetary policy of RBI initiated since the beginning of COVID cases in India (January 2020). A good number of fiscal, monetary, regulatory, and macro-financial policy measures have been initiated by the country; however, this study confines itself only to the monetary policy initiatives. We categorise these RBI's actions into four heads namely: Policy Rate Cuts, Liquidity Provisions and Credit Supports, Asset Purchases, and Regulatory Easing. For Impact analysis, data related to macroeconomic variables like GDP growth rate, employment rate, Industrial production rate, Liquidity position in the Indian Banking System and Banks' Credit offtake are used. The study is based on secondary data collected from various news reporting, press releases, and published reports of World Health Organization (WHO), World Trade Organization (WTO), World Bank, World Economic Forum (WEF), International Labour Organization (ILO), IMF, and RBI during this pandemic period. The policy responses for the study are considered from February 2020 to June 2021. However, for ease of comparison, annual data of 2020-21 is compared with the previous financial year 2019-20.

MACROECONOMIC SCENARIO AND OUTLOOK

Since the declaration of Pandemic in March 2020, and imposition of lockdowns across the globe, Central banks started expecting severe economic dislocation, freezing of financial markets, widespread suffering of households and businesses which in turn should have their inevitable impact on financial intermediaries, and finally downturn in the global trade. RBI also started facing the problem of capital outflow, and its impact on the asset price volatility and financial stability. Macro-stress tests for credit risk show that Scheduled Commercial Banks' (SCBs) Gross Non-Performing Assets (GNPA) ratio may increase from 7.48 per cent in March 2021 to 9.80 per cent by March 2022 under the baseline scenario and to 11.22 per cent under a severe stress scenario. Stress tests also indicate that SCBs have sufficient capital, both at the aggregate and individual level, even in the severe stress scenario. The global manufacturing Purchasing Managers Index (PMI) exhibited its lowest level (27.40 points) in April 2020 since 2008– 09, along with the services PMI being at its all-time low confirmed the grip of negative sentiments and economic downturn. **[13]** in their study tried to assess the impact of COVID-19 on Indian economy for short term (2020-21) and long term (from 2020-21 to 2024-25). They used five key economic indicators namely: GDP, Unemployment rate, Inflation rate, Interest rate and Industry output. They forecasted for the big impact of pandemic on all five sample economic indicators for short run. However, they were not very clear about the long-term forecast as it was an early stage of the COVID –19 Spread, and very limited number of specific government policies had been announced to address the issues by that time (April 2020).

MONETARY POLICY RESPONSES OF RBI

The prime concern of RBI was to minimize the impact of pandemic on the momentum of financial market and to ensure that no financial institutions should face liquidity crunch. In this fight against pandemic, RBI monetary policy committee (MPC) advanced its first two meetings of 2020-21 and used many unconventional monetary policy tools like Long Term Repo Operations (LTRO), Targeted Long Term Repo Operations (TLTRO), special OMOs etc for easing financial conditions without disturbing the financial stability **[14].** RBI's policy actions described under four headings highlights the accelerated and comprehensive approach to

arrest the cascading effects of pandemic. We analysed and evaluated the impact of those responsive actions on the Indian economy in general and especially the Indian financial system.

Policy Rate Cuts

The Reserve bank reduced the Repo rate by 75bps on March 27, 2020, followed by 40bps on May 22, 2020, making it 4%. During the same tenure, Reverse Repo rate got revised 155bps downward to 3.35% **[15]**. The statutory Liquidity Ratio (SLR) decreased from 18.25% to 18% on April 11, 2020. The easing of limits of commercial banks' overnight borrowing under the Marginal Standing Facility (MSF) and targeted three-year repo operations to alleviate the pressures on non-banking finance companies (NBFCs) and Micro finance institutions (MFIs) by RBI, stimulated the private borrowings through corporate bonds and debentures in FY2020-21. Reserve money increased by 12.4 per cent, broad money supply (M3) by 9.9 per cent, and bank credit by 6.0 per cent (y-o-y) by the end of May 2021. However, due to the severity of the second wave of pandemic in April -May 2021, RBI's focus is shifting from systemic liquidity to its equitable distribution.

Liquidity Provisions and Credit Supports

RBI pumped ₹ 11.1 trillion till the end of first quarter of 2020-21 which increased the overall liquidity in the market and stabilized the bond yield. On April 17, 2020, to provide additional liquidity to small and mid-sized corporates, including NBFCs and MFIs, RBI introduced Targeted Long-Term Repo Operations (TLTRO) 2.0 with a corpus of ₹ 500 billion at the Policy repo rate for three years period. The funds availed under TLTRO 2.0 had to be deployed in investment grade bonds, commercial paper (CPs) and non-convertible debentures (NCDs) of NBFCs **[16].** On April 27, 2020, RBI announced a special liquidity facility of ₹ 500 billion for mutual funds (SLF-MF) and a fixed-rate 90-day repo operation for banks exclusively for meeting the liquidity requirements of mutual funds, along with regulatory easing for liquidity support availed under the facility **[17]**. On April 30, 2020, RBI launched a special refinance facility (SRF) of ₹ 500 billion to specialised financial institutions such as NABARD, SIDBI and NHB for their refinancing to agriculture and the rural sector, small industries, housing finance companies (HFCs), NBFCs and MFIs **[18]**. On June 4, 2020, RBI extended the benefits under interest subvention (2%) and prompt repayment incentive (3%) schemes until August 31, 2020, for short-term Agricultural and Animal Husbandry, Dairy and Fisheries (AHDF) loans up to ₹300,000 per farmer **[19].** Further, on September 01, 2020, RBI enhanced Held-To-Maturity (HTM) limit from 19.5% to 22% of Net Demand and Time Liabilities (NDTL) in respect of SLR eligible securities acquired on or after September 1, 2020, up to March 31, 2023 **[20]**. These steps are expected to provide some relief in mark-to-market (MTM) losses for banks. The monetary authority of India also provided sell/buy swaps via auctions, to maintain the foreign currency liquidity. To ease the liquidity trap in short run, RBI opened the window of variable rate reverse repos. With respect to realisation and repatriation of the export proceeds to India, RBI has increased the period from nine months to 15 months from the date of export made up to July 31, 2020. Subsequently, the maximum permissible period of pre-shipment and post-shipment export credit sanctioned by banks also got increased from 12 months to 15 months, for disbursements made during the corresponding period **[21].**

In the backdrop of the severity of second wave of the pandemic, RBI instantly created on-tap liquidity facility of ₹ 500 billion for COVID related financing at the Repo rate for the tenors of up to three years and will remain open till March 31, 2022. To motivate the banks for quick

delivery of credit lending under this facility was classified as priority sector lending and they were made eligible for parking their surplus liquidity with RBI at 40bps higher than the Reverse Repo rate. Small finance banks (SFBs) were also incentivised by creating a special three-year long-term repo operation (SLTRO) of ₹100 billion at repo rate for fresh lending to micro and small businesses up to Rs 1million per borrower till October 31, 2021. Further, the lending by SFBs to MFIs (with asset size of up to ₹5 billion) will be treated as priority sector lending and will be available till March 31, 2022. To ease the credit to individuals and small business units having aggregate exposure of ₹250 million and classified as standard assets on March 31, 2021, Resolution Framework 2.0 is proposed under which restructuring of the loans may be invoked up to September 30, 2021 and shall have to be implemented within 90 days after invocation.

Asset Purchases

Like any other central banks of advanced economy, RBI also opted for Asset purchase route as an additional alternative to address the pandemic issues. It purchased approximately ₹ 3.13 trillion worth of G-Secs from the secondary market during 2020-21 under Open Market Operation (OMO) purchase scheme on weekly basis. The scheme of OMO purchase has existed in India for very long time, but was highly unstructured and ad-hoc in nature resulting into an opaque system. To make the system transparent and robust RBI launched Government Securities Acquisition Program (G-SAP), normally witnessed only in the advanced economies. In its first spell, conducted during April-June 2021 acquired securities worth ₹ 1.0 trillion followed by G-SAP 2.0 (announced on June 4, 2021, for Q2:2021- 22) which intends to have a purchase of ₹1.20 trillion to maintain the liquidity in the market **[22]**. RBI purchased government securities outright in the secondary market, to support central government in mitigating the pandemic and to energize the economic recovery.

Regulatory Easing

RBI increased the limit for Foreign Portfolio Investors' investment in corporate bonds to 15 percent of outstanding stocks for FY 2020/21 and removed the restriction on non-resident investment in specified securities issued by the Central Government **[23]**. On June 21, 2020, the RBI directed banks to assign zero percent risk weight on the credit facilities extended under the emergency credit line guarantee scheme (ECLGS)[1] to MSME borrowers **[24]**. RBI also delinked the risk weights for new housing loans sanctioned until March 31, 2022, from the size of the loan, but maintained the linkage to the Loan to Value (LTV) ratios. The maximum single counterparty exposure limit for retail loans by banks is also eased from ₹50 million to ₹75 million **[25]**. The Liquidity Adjustment Facility (LAF) and the MSF are also extended to the regional rural banks to improve their liquidity management since December 2020 **[26].** The implementation of the Net stable funding ratio (NSFR)[2] and the last stage of the phased-in implementation of the Capital Conservation Buffers (CCB)[3] of 0.625% which was due on April 1, 2020, are finally deferred till October 01, 2021 **[20]**. RBI extended the reductions in cash reserve requirements against MSME loans for banks until December 2021. The Know Your Customer (KYC) compliance requirements also got eased through video KYC known as V-CIP (video-based customer identification process), conversion of limited KYC accounts opened based on Aadhaar e-KYC authentication in non-face-to-face mode to fully KYC-compliant accounts, and no punitive action against delay in KYC compliance till Dec31, 2021. Banks are also allowed to utilise their 100 per cent of floating provisions/countercyclical provisioning buffer available as on December 31, 2020, for making specific provisions for non-performing assets with prior approval of their Boards. This permission will be available till March 31, 2022.

RBI increased the state Government's short-term liquidity credit under the Ways and Means Advance (WMA) to enable them for their fiscal management. The maximum number of days of Overdraft (OD) in a quarter is being increased from 36 to 50 days and the number of consecutive days of OD from 14 to 21 days for the period till September 30, 2021 **[27].**

IMPACT ANALYSIS

In India, because of constrained fiscal response, the RBI had to do much of the heavy lifting. Its policy actions since February 2020 have put it at par to any central bank of advanced economies. RBI has carried out more policy actions than any other EME central banks **[28].** Examining the overall actions of RBI, since February 2020, it may be concluded that the monetary authority of India adopted multipronged strategies to minimise the adverse macroeconomic impact of the Covid pandemic and the associated lockdowns. Effective transmission of monetary policy impulses to the targets/beneficiaries along with preserving financial stability without disturbing the proper functioning of financial markets and financial institutions was a challenge but RBI did it successfully. Adequate liquidity at affordable rates is always maintained in the market to keep financial system robust. Commercial banks are encouraged to extend credit on easy terms specially to households for stimulating the demand and to MSMEs for supply side. RBI has made a smart move in which at one hand excess liquidity is sucked for the short period through variable rates reverse repo, and on other side injected the liquidity for longer period which results into compressing the 'term-premia' and normalising the curve. The impact is clearly noticed through the reduced yields on Government securities like 6% for the 10-year G-Sec, 5.6% for 5-year G-Sec and around 4.85% for 3-year G-Sec. The key economic indicators witnessed the V shaped recovery in the month of May 2020 onwards due to quick and collective efforts of monetary and fiscal responses as shown in figure – 2. These all indicators namely GST collection, IIP Index, Power consumption, Petroleum Products Consumption, PMI Manufacturing, PMI Services, and Merchandise Imports are the proxies to economic performances and their improvements during 2020-21 may be credited to the policy actions of monetary authority of India.

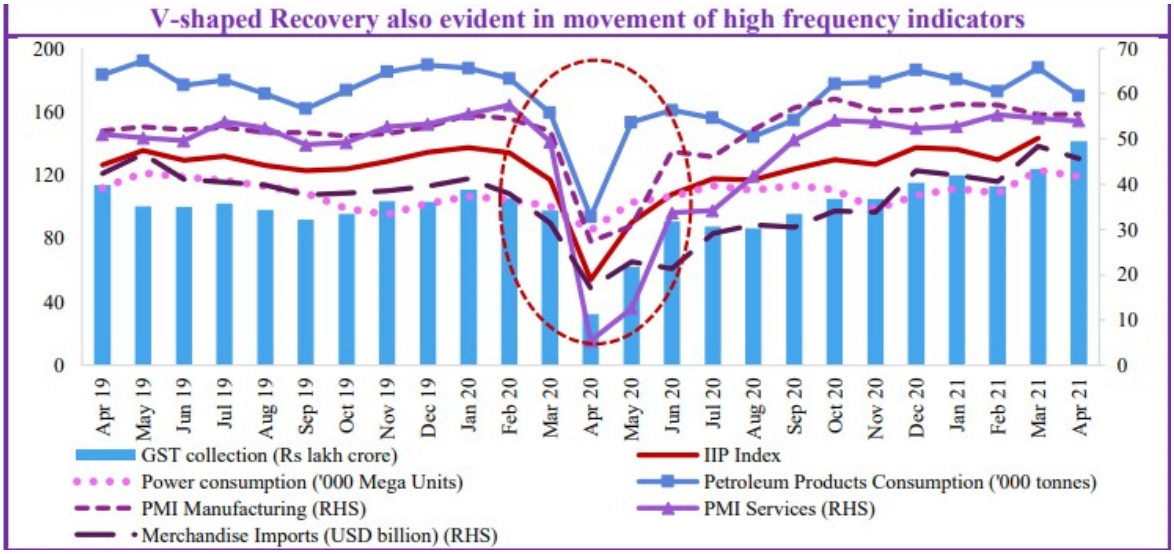

Figure -2: Performance of Key economic indicators during April 2021 to April2021. Source: Monthly Economic Review, Department of Economic Affairs May 2021[29]

The market borrowings by Central government which doubled from ₹7100 billion in 2019-20 to ₹13703.24 billion in 2020-21 and the state governments' borrowings increased to ₹7988.16 billion from ₹6345.21 billion during the same period may be best attributed to the successful liquidity management of RBI **[30]**. This is further evidenced from the fact that SLR Securities holding, and state development loans of the scheduled commercial banks were highest in March 2021 since 2008 with the values of 23.5% and 7.3% of total domestic assets, respectively. The changes in the yield curves between September 2020 and December 2020 / May 2021 as shown in figure-3 confirms the sufficient availability of liquidity in the market. From the figure-3, sub1-year tenor yields plunged in both time periods but rose sharply till May 2021 in the above 1-year tenor, witnessing large supplies owing to increased government borrowing.

RBI's accommodative monetary policy and maintaining surplus liquidity have resulted into decreasing short-term interest rate expectations and kept the near end of the risk-free curve well anchored which further narrowed down the spread between the 3-month Treasury bill rate and unsecured CD rates significantly (see figure-4).

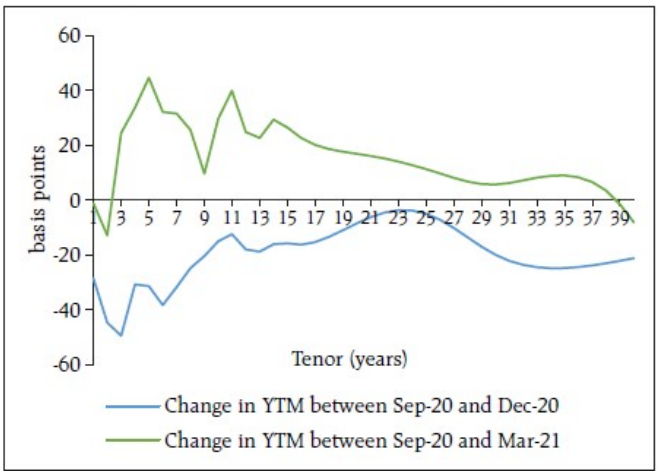

Figure-3: Yield Curve Shifts between September 2020 and December 2020 / May 2021
Source: Bloomberg

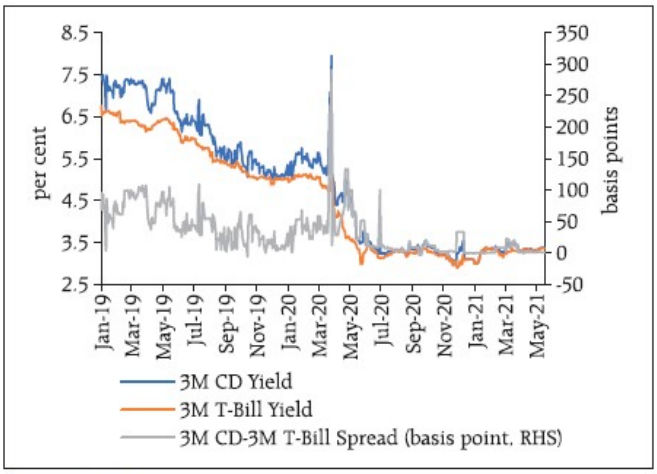

Figure-4: Spread between 3-month Unsecured and Risk-free Rate
Source: Bloomberg

The impact of RBI response may further be observed on USD/INR exchange rate where after depreciating to a historical low of ₹76.91 per US dollar on April 22, 2020, the Indian rupee appreciated on the back of FPI inflows amidst revival of economic activity and positive developments on vaccines. It is also important to note that while implied volatility has generally been range bound, realised volatility has moved higher (see Figure -5).

Money Market liquid funds' excess returns which had turned negative due to COVID-19 during April-June 2020 are now in positive terrain as indicated in figure -6. This may be the result of credit creation and support drive of RBI. The banking stability indicator (BSI)[4] of SCBs exhibited improvement in all five dimensions in March 2021 as compared to the previous year (see Figure-7). This may be due to banks' improved capital positions, better returns on assets and higher customer deposits to total assets ratio.

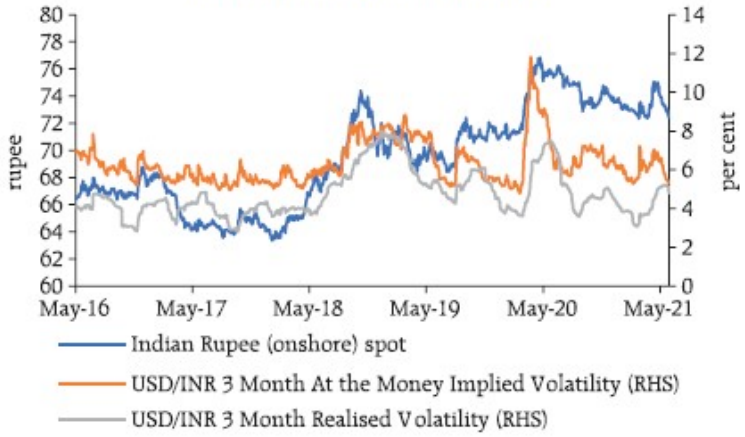

Figure-5: Movements in INR and 1-month Historical Realised and Implied Volatility
Source: Bloomberg

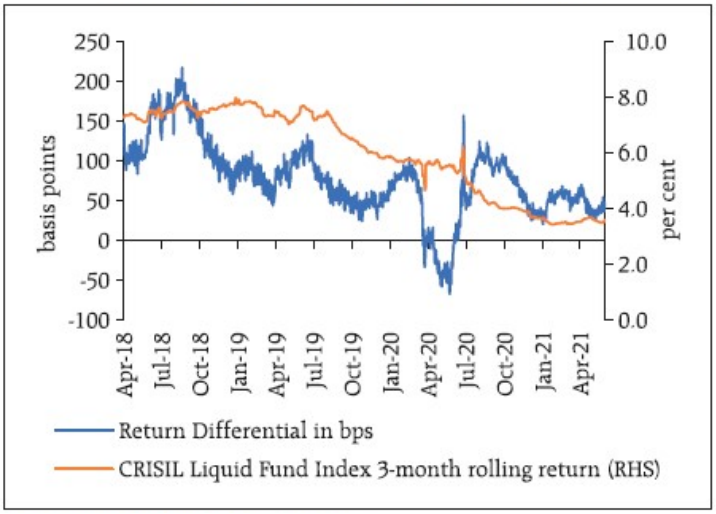

Figure-6: Excess Return in Money Market Fund
Source: RBI FSR July 2021

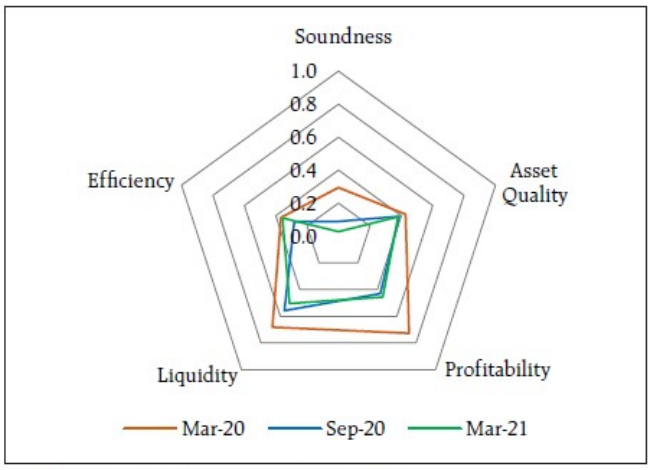

Figure -7: Banking Stability Map
Source: RBI FSR July 2021, Note: Away from the centre signifies increase in risk.

The SCBs registered an increase of 5.4 percent in credit and 11.9 per cent in aggregate deposits on y-o-y basis during 2020-21 (Figure -8). It is further observed that CASA deposits posit higher growth (17.6%) than term deposits (9.2%), may be due to 'dash on cash' behaviour of households in the backdrop of need of emergency fund under the cloud of pandemic (Figure -9). Though on both Credit and Deposit fronts, Private sector banks have outperformed but overall, Indian banks require to improve the credit growth in the interest of the economy.

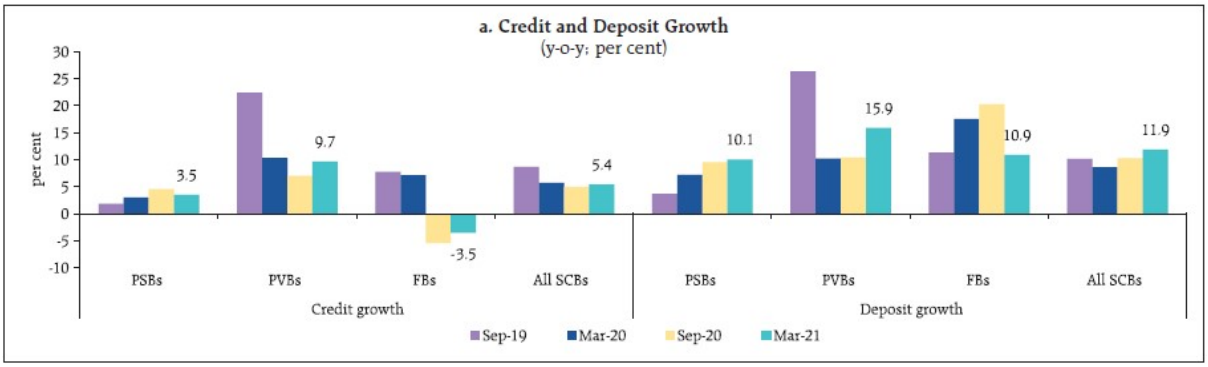

Figure -8: Aggregate Credit and Deposit growth with SCBs
Source: RBI FSR July 2021

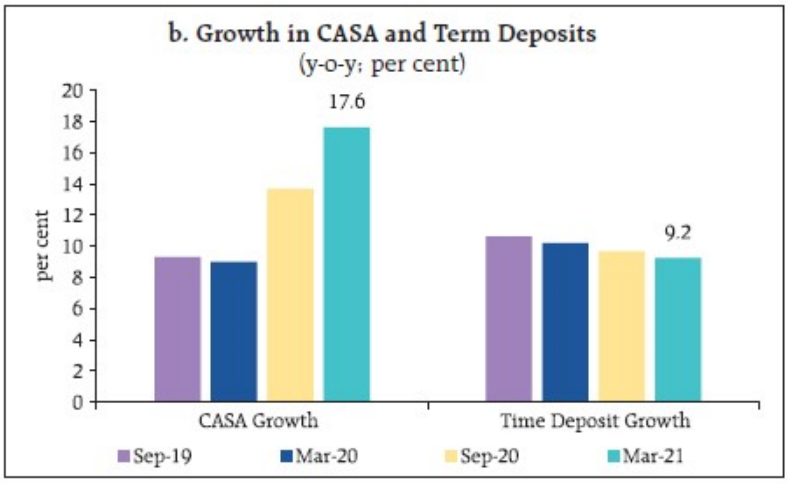

Figure -9: Growth in CASA and Term Deposits
Source: RBI FSR July 2021

Return on assets (RoA) and return on equity (RoE) of SCBs maintained a positive uptrend in 2020 - 21 and their capital to risk-weighted assets ratio (CRAR) improved by 130 bps year-on-year to reach 16 per cent in March 2021. The manufacturing PMI in India**,** which was averaged 51.82 points from 2012 until 2021, reached an all-time high of 58.90 points in October of **2020** from a record low of 27.40 points in **April** of **2020** is one of the best evidence of the impact of prompt policy intervention through sufficient liquidity provisions and credit support. The reduction in merchandise trade deficit to US $98.6 billion in 2020-21 from US $ 161 billion a year ago is also due to the RBI's policy towards foreign trade and facility to the exporters. Thus, the efforts made by RBI to tackle the negative impact of COVID on Indian economy are very successful and impressive.

CONCLUSION

Overall economic costs of Covid-19 which has resulted into an arrest of around two years of GDP growth and indeterminate losses in employment and livelihoods, is yet to be determined. However, Central banks and regulatory authorities are tirelessly fighting from forefront against the damages wrought by the COVID-19 pandemic throughout the globe. Though the recovery remains hesitant and divergent, especially after the second wave of the pandemic but the spirit of the regulators to fight against is not compromised. The learning from the GFC has been instrumental in handling the post COVID situation. It has helped the central banks to reduce their policy response time and increase the overall quality of the policies transmission. The impact is felt in the form of quick operational resilience of the financial sector entities. The focus on building new capabilities and refining the existing systems has increased which are evident from the policy responses towards both supply and demand side of the economy. All the four fronts namely policy rate cuts, liquidity provisions and credit support, asset purchases, and regulatory easing got activated simultaneously. These actions resulted into strengthening of capital positions and provisions to withstand aftershocks from waves of the pandemic by the banks and other financial institutions. It has also been cared that in the case of withdrawal of special supports, smooth functioning of the financial institutions should be maintained. Demand side has been properly addressed through policy rate cuts, easy access to financial products and associated incentives, waving off or providing moratorium of interest amount, strengthen the grievance redressal mechanism and protect the interests of

depositors/investors. By and large, these timely policy interventions by RBI have been able to dampen and mitigate pandemic-related losses and stresses, cushioning real activity and preserving the soundness of the financial system. Regulatory easing across jurisdictions facilitated the flow of financial resources to the economy and effectively prevented the amplification of the shock. In the light of recently passed second wave of pandemic and in the shadow of expected third wave which might be more dangerous, RBI should continue its policy presence for maintaining the financial equilibrium till the return of normalcy. Further, for universal vaccination, production capacity has to increase many fold where RBI may play a vital role through easy credit extension and regulatory supports.

Note

1. Emergency Credit Line Guarantee Scheme (ECLGS) provide 100% guarantee coverage for the GECL assistance (pre-approved under ECLGS 1.0) up to 20% (40% in case of Hospitality, Travel & Tourism and Leisure & Sporting sectors) of loan outstanding on February 29, 2020, to eligible borrowers **(**for all Business Enterprises / MSME Institution borrowers with loans of up to Rs. 25 Cr. & annual turnovers of up to Rs. 100 Cr)**,** in the form of additional working capital term loan facility.

2. The NSFR is defined as the amount of Available Stable Funding (ASF) relative to the amount of Required Stable Funding (RSF). ASF is the portion of capital and liabilities expected to be reliable over the time horizon of one year whereas RSF of a specific institution is a function of the liquidity characteristics and residual maturities of the various assets held by that institution as well as those of its off-balance sheet (OBS) exposures. NSFR is calculated as:

$$\boldsymbol{NSFR} = \left(\frac{\boldsymbol{Available\ Stable\ Funding\ (ASF)}}{\boldsymbol{Required\ Stable\ Funding\ (RSF)}}\right) \geq \mathbf{100\%}$$

3. The capital conservation buffer (CCB) was introduced on the backdrop of the Global Financial Crisis under Basel norms to ensures that banks have an additional layer of usable capital that can be drawn down when losses are incurred. Accordingly, RBI had to implement it in the four tranches of 0.625 per cent (full CCB of 2.5 per cent)
4. Banking Stability Indicator (BSI) is an overall assessment of changes in underlying conditions and risk factors that have a bearing on the stability of the banking sector during a period. The five composite indices used in the banking stability map and indicator represent the five dimensions of soundness, asset-quality, profitability, liquidity, and efficiency.

References

[1]. WHO statement on novel coronavirus in Thailand News release (13 January 2020), https://www.who.int/news/item/13-01-2020-who-statement-on-novel-coronavirus-in-thailand

[2]. Andrews, M.A., Areekal, Binu., Rajesh, K.R., Krishnan, R. Jijith., Suryakala, Biju Krishnan, Muraly, C.P., and Santhosh, P.V., (May 2020), "First confirmed case of COVID-19 infection in India: A case report" Indian Journal of Medical Research; 151(5): 490–492. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7530459/

[3]. WHO Report: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/ interactive - timeline?gclid=CjwKCAjw_JuGBhBkEiwA1xmbRRJAW836nyWKp6ijMV830Y1YlFxRc 99JCImzq_d_Yw_0niOrRKhHWxoCdJAQAvD_BwE#category-Information

[4]. ET Healthworld.com (March 13 2020), Karnataka announces India's first coronavirus death https://health.economictimes.indiatimes.com/news/industry/state-minister-announces-indias-first-coronavirus-death/74604253

[5]. ILO Monitor: COVID-19 and the world of work. Seventh edition Updated estimates and analysis (January 25, 2021), https://www.ilo.org/wcmsp5/groups/public/@dgreports/@ dcomm/documents/briefingnote/wcms_767028.pdf

[6]. Business Today (June 01, 2021), 10 million lost jobs in Covid 2nd wave, 97% households' income declined: CMIE https://www.businesstoday.in/current/economy-politics/income-of-97-households-declined-since-covid-19-pandemic-began-cmie/story/440498.html

[7]. Centre for Economic Policy Research (CEPR Press 2021) 33 Great Sutton Street London, EC1V 0DX UK Web: www.cepr.org ISBN: 978-1-912179-44-2

[8]. COVID19 and World Trade, FAQ https://www.wto.org/english/tratop_e/covid19_e/faqcovid 19_e.htm

[9]. Sarker, Provash. (September 2020), "COVID Crisis: Fiscal, Monetary and Macro-financial Policy Responses", *Theoretical and Applied Economics,* Volume XXVII No. 3(624), Autumn, pp. 41-54. DOI: 10.2139/ssrn.3601524

[10]. Chakraborty, Lekha. and Thomas, Emmanuel (April 13, 2020), "COVID-19 and Macroeconomic Uncertainty: Fiscal and Monetary Policy Response", NIPFP Working paper series (paper No. 302), https://www.nipfp.org.in/publications/working-papers/1899/

[11]. Echarte Fernández, M.Á.; Náñez Alonso, S.L.; Jorge-Vázquez, J.; Reier Forradellas, R.F. April 2021, "Central Banks' Monetary Policy in the Face of the COVID-19 Economic Crisis: Monetary Stimulus and the Emergence of CBDCs", *Sustainability*, 13, 4242. https://doi.org/ 10.3390/su13084242

[12]. IMF Report: Policy Responses to COVID 19, Last updated on (June 10, 2021) https://www. imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19

[13]. Barbate, Vikas., Gade, Rajesh N., and Raibagkar, Shirish S. (2021), "COVID-19 and its Impact on the Indian Economy", *Vision: The Journal of Business Perspective*, 25(1), pp. 23-35. DOI: 10.1177/0972262921989126

[14]. Talwar, B Arjun., Kushwaha, K Mohan., and Bhattacharyya, Indranil (March 2021), "Unconventional Monetary Policy in Times of COVID-19" *RBI Bulletin March 2021, pp. 41-56*

[15]. Business Standard (Oct 12, 2020), https://www.business-standard.com/article/finance/rs-11-1-trillion-mount-rbi-pumped-into-banking-system-to-boost-liquidity-120101201029_1 .html

[16]. RBI Press Release (April 17, 2020), https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=49689

[17]. Business Line (May 05, 2020), https://www.thehindubusinessline.com/opinion/columns/slate /all-you-wanted-to-know-about-special-liquidity-facility-for-mfs/article31503049.ece

[18]. BusinessToday.In (April 30, 2020), https://www.businesstoday.in/industry/banks/story/ coronavirus-stimulus-nabard-sidbi-nhb-launches-refinance-schemes-for-nbfcs-mfis-256934-2020-04-30

[19]. RBI Notification (June 04, 2020), https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=11909&Mode=0

[20]. Business Standard (February 05, 2021), https://www.business-standard.com/article /finance /rbi-extends-deadline-for-last-tranche-of-capital-conservation-buffer-121020500510_1.html

[21]. RBI notification (May23 2020), https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=11904&Mode=0

[22]. The Hindu (June 04, 2021), https://www.thehindu.com/business/rbi-to-undertake-g-sap-20-operation-in-q2fy22-to-purchase-g-secs-of-12-lakh-crore/article34724363.ece.

[23]. RBI Notification (March 30, 2020), https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=11848&Mode=0

[24]. Business Insider India (June 22, 2020) https://www.businessinsider.in/business/news/dont-assign-risk-weight-on-credit-under-eclgs-rbi-to-lending-institutions/articleshow/76499074.cms

[25]. The Hindu (October 09, 2020) https://www.thehindu.com/business/Economy/rbi-to-rationalise-risk-weightage-on-housing-loans-to-push-demand/article32812031.ece

[26]. RBI Notification (December 04, 2020), https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=12004&Mode=0

[27]. RBI Notification (February 05, 2021), https://rbi.org.in/scripts/NotificationUser.aspx?Id=12022&Mode=0

[28]. Cantu, C, P Cavallino, F De Fiore and J Yetman, (2021), "A Global Database on Central Banks' Monetary Responses to Covid-19", BIS Working Paper No 934, Bank for International Settlements.

[29]. Monthly Economic Review, Department of Economic Affairs (May 2021)

[30]. https://dea.gov.in/sites/default/files/MER_May_2021.pdf

[31]. RBI Financial Stability Report July 2021,

[32]. https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=1174