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Capital Adequacy Ratio — a Panacea for Indian Banks during COVID-19 Pandemic

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ABSTRACT

A stable financial system acts as a catalyst for the economic growth and development of a country. The healthy banking sector is the core of a sustainable economy as banks act as intermediaries between depositors and lenders of money. In the surge of the COVID-19 pandemic, the financial sector witnessed significant transitions in terms of digital transformation. In India, the banking sector has remained resilient throughout the pandemic due to government and regulators' policy efforts and the maintenance of capital adequacy requirements. Banks have maintained higher capital buffers, better liquidity requirements, and lower leverage, cushions against pandemic shock. In the present paper, the researcher provides a conceptual elucidation of Basel norms, analyzes the component-wise Capital to Risk-Weighted Asset Ratio (CRAR) of Indian Scheduled Commercial Banks (SCBs) and examines the CRAR position of SCBs during the COVID-19 pandemic. The study also evaluated the distribution of SCBs by CRAR and examined the capital ratios of public, private, and foreign sector banks from 2016 to 2022. The ANOVA analysis output revealed a significant difference in the CRAR of public, private, and foreign banks. The study concludes that adequate CAR levels help banks mitigate the risks that arise during pandemic crises and aid them in conducting their banking operations effortlessly. Further, it concludes that public sector banks (PSBs) still lag behind their counterparts in maintaining adequate CRAR, and hence, they need to reduce the accumulation of risk-weighted assets (RWA).

Keywords: CRAR; Basel Norms; SCBs

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INTRODUCTION

A well-knit financial system contributes significantly to speeding up the economic growth of a country as it mobilizes the savers' funds and channels them into investments. A financial system consists of financial institutions, financial markets, financial instruments, and financial services. In India, financial institutions (FIs) are comprised of banking and non-banking institutions. Banking institutions comprise scheduled commercial banks (SCBs) and Cooperative banks. Indian SCBs consist of 12 Public Sector Banks (PSBs), 22 Private Sector Banks (PVBs), 45 Foreign Banks (FBs), and 10 Small Finance Banks.[1]

As of March 31, 2021, there are 133 reporting banks under all Scheduled Commercial Banks (SCBs) comprising Rs. 254589.04 crore liabilities to the banking system, Rs. 16014144.86 crore liabilities to others in India, Rs. 197541.31 crore assets with the banking system, Rs. 633440.35 crore cash in hand and balances with RBI, Rs. 4462525.66 crore Investments in India, and Rs. 10949509.00 crore bank credit.

A resilient banking sector is key to a country's economic development. Banks are financial intermediaries and act as a mechanism between those who have excess income over expenditure and those who can make productive use of the same [1]. The capital adequacy ratio (CAR) is the main indicator of the financial soundness of banks. CAR is also known as Capital to Risk-Weighted Asset Ratio (CRAR). A high level of CAR indicates the stability of banks and acts as

[1] Reserve Bank of India (2021a). Statistical Tables Relating to Banks in India 2020–21. URL: https://www.rbi.co.in (accessed on 22.06.2022).

a cushion to protect customers' interests against future uncertainties and unforeseen circumstances.

According to the World Health Organization,[2] Coronavirus (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus, which started spreading on December 31, 2019. People infected with the COVID-19 virus experience common symptoms like fever, dry cough, fatigue, nasal congestion, headache, sore throat, loss of taste or smell, vomiting, diarrhea, etc. In contrast, severe symptoms include shortness of breath, loss of appetite, a high temperature (above 38 degrees Celsius), confusion, and persistent pain or pressure in the chest. In most of the cases (almost 80%), people who get infected with the COVID-19 virus recover easily without needing hospital treatment, whereas 15% become seriously ill and require oxygen, and 5% become seriously ill and require intensive care. People over 60 years of age and those with underlying medical problems, if not taking proper precautionary measures, have a higher chance of getting COVID-19 infection and may become severely ill or die at any age. COVID-19 spread globally and hit the economies of various countries, resulting in the loss of jobs, inflation, imposing lockdowns, unemployment, dislocating financial markets, decreased or ceased production, social distancing, declining asset prices, and extraordinary economic contractions around the world.

Basel Accords

The Basel Committee on Banking Supervision (BCBS) was set up by the central bank governors of Group 10 countries in 1975 due to serious banking disruptions in the international market. The committee headquarters are situated at the Bank for International Settlements (BIS), Basel, Switzerland, where member countries meet regularly and discuss banking regulation, supervision, and risk management matters. BCBS was established to enhance financial stability in the international banking system by improving the quality of banking supervision and encouraging cross-border cooperation among member countries.[3] As of February 9, 2022, BCBS has 45 members, comprising central banks and bank supervisors from 28 jurisdictions across the globe (Bank for International Settlements.[4] Implementing Basel norms in internationally active banks enhances financial stability when facing current and emerging financial risks. It remains resilient during unprecedented financial crises (such as the Global Financial Crisis of 2007–2009) and pronounced global economic downturns (such as the COVID-19 pandemic). The committee has laid down prominent guidelines on capital adequacy: Basel I, Basel II, and Basel III, as well as international standards for bank regulation and supervision. These are explained as follows:

Basel I: The Basel Capital Accord

The BCBS released the capital measurement system known as the Basel Capital Accord in July 1988, which called for a minimum Capital Adequacy Ratio (CAR) of 8% to be implemented by the member countries by the end of 1992. In India, the Reserve Bank of India (RBI) directed all banks in October 1998 to maintain a minimum CAR of 9% by the end of March 2000. The Basel I calculate CAR by incorporating credit risk only.[5]

Basel II: The New Capital Framework

BCBS issued a new capital adequacy framework in June 1999 and released a revised framework in June 2004. Basel II called for more stringent capital regulatory norms and robust risk management practices than Basel I. It incorporated credit risk, market risk, and

[2] World Health Organization (13 May, 2021). Coronavirus disease (COVID-19). Retrieved from https://www.who.int/emergencies/diseases/noval-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19 (accessed on 22.06.2022).

[3] Basel Committee on Banking Supervision. (2013a). A brief history of Basel Committee. URL: https://www.bis.org/bcbs/history.htm (accessed on 22.06.2022); Basel Committee on Banking Supervision. (2013b). Basel Committee on Banking Supervision (BCBS) Charter. URL: https://www.bis.org/bcbs/charter.htm (accessed on 22.06.2022).

[4] Bank for International Settlements. (2022). The Basel Committee-Overview. URL: https://www.bis.org/bcbs/index.htm (accessed on 22.06.2022).

[5] Reserve Bank of India. (2000). Report on trend and progress of banking in India 1999–2000. URL: http://www.rbi.org.in (accessed on 22.06.2022).

operational risk for calculating the three pillars: Minimum Capital Requirements, Supervisory Review, and Market Discipline. In India, the RBI issued Basel II guidelines for foreign banks effective from March 31, 2008, and other commercial banks effective from March 31, 2009; they were fully implemented until March 2013.[6]

Basel III

The financial crises of 2007–2008 led to the issuance of Basel III norms, which aim for higher global minimum capital standards for a more resilient banking system. BCBS released Basel III guidelines in December 2010, encompassing stricter regulatory capital, minimum common equity requirement (the capital conservation buffer), a countercyclical capital buffer, a leverage ratio, and minimum liquidity requirements. The RBI released Basel III guidelines for Indian banks in May 2012, which have to be implemented fully until 31 March 2019.[7]

Capital to Risk-Weighted Asset Ratio (CRAR) / Capital Adequacy Ratio (CAR)

The RBI introduced the CAR for all the banks operating in India in April 1992, which was in line with Basel guidelines for strengthening the capital base of banks. In October 1998, the RBI directed all the banks to maintain a minimum CAR of 9 per cent on an ongoing basis from the year ended March 2000. CAR is the minimum amount of capital that the banks must keep with themselves to meet future uncertainties, protect the interests of the depositors, and face economic/global financial crises.[8]

Formula for Calculating CRAR/CAR

BCBS laid down the following formula for calculating CRAR/CAR.

$$\text{CRAR / CAR} = \frac{\text{Capital}\ (\ \text{Tier I Capital} + \ \text{Tier II Capital})}{\text{Risk} - \ \text{Weighted Assets}\,(\text{RWA})}.$$

Capital refers to the minimum regulatory capital banks must keep to absorb losses arising from uncertain internal or external factors and unforeseen contingencies. It comprises Tier I capital (i.e., core capital including share capital and disclosed reserves) and Tier II (i.e., supplementary capital including undisclosed reserves, hybrid debt capital, revaluation reserves, general reserves, investment and loss reserve).

Risk-weighted assets are the aggregates of credit risk expressed as a percentage of funded and non-funded items [2].

Capital Adequacy Ratio and COVID-19 Pandemic

Every country faced an economic and financial downturn amidst the coronavirus pandemic. A country's strong and stable financial system can mitigate the losses caused to various sectors by the COVID-19 pandemic to a certain extent. CRAR is a standard measure to gauge the financial strength of banks. One of the major reasons that Indian Scheduled Commercial banks survived and remained resilient through the pandemic is the maintenance of adequate capital requirements and extensive monetary, fiscal, and regulatory support measures taken by the Government and RBI. Indian banks have sufficient capital buffers, which help them withstand sudden shocks caused by successive waves of the COVID-19 pandemic during 2019–2022.

During COVID-19, banks did not receive regular interest instalments as a moratorium facility was granted on loans until August 2020, which diminished their profits and substantially affected their expenses and operating efficiencies. However, maintaining adequate capital requirements, additional capital conservation buffers, and a strong liquidity and leverage position helps banks carry out their business operations smoothly. The CAR helps banks meet customer demands

[6] Reserve Bank of India. (2007). Report on trend and progress of banking in India 2006–2007. URL: http://www.rbi.org.in (accessed on 22.06.2022). Reserve Bank of India. (2015a). Master circular prudential guidelines on capital adequacy and market discipline — New capital adequacy framework (NCAF). URL: https://rbidocs.rbi.org.in/rdocs/notification/PDFs/85BL4697A788DAB5485B826CFA24D35EA1BE.PDF (accessed on 22.06.2022).

[7] Reserve Bank of India. (2015b). Master circular — Basel III capital regulations. URL: https://rbidocs.rbi.org.in/rdocs/notification/PDFs/58BS09C403D06BC14726AB61783180628D39.PDF (accessed on 22.06.2022).

[8] Reserve Bank of India. (2006). Master circular-Prudential norms on capital adequacy. URL: https://rbidocs.rbi.org.in/rdocs/notification/PDFs/71222.pdf (accessed on 22.06.2022).

and disburse loans effectively. If banks have not maintained adequate capital ratios, then economic activities in India have been greatly impacted. The main objective of Basel-III norms is to make the banking sector more resilient to face any financial crises, unforeseen contingencies, or pandemics and discharge its functions efficiently. The RBI and government have initiated several measures to mitigate the pandemic destruction, such as moratorium, recapitalization, restructuring, and capital infusion. During the COVID-19 pandemic, there has been a rise in current and savings account deposits as more stress has been placed on liquidity than fixed deposits. Adequate CRAR levels help banks withstand liquidity pressures from sudden and unexpected withdrawals of deposits by depositors.[9]

LITERATURE REVIEW

Several studies have been conducted on capital adequacy norms, covering areas such as Basel I, Basel II, and Basel III, determinants of CAR, the impact of CAR on financial performance, and so forth. A brief outline of a few related studies is discussed chronologically: the Bank for International Settlements[10] assessed the impact of Basel norms on the resilience and behaviour of banks during the coronavirus pandemic. The study revealed that maintaining Basel norms has helped banks face the financial downturn during COVID-19. The result of regression analysis found that banks with higher Common Equity Tier I capital ratios experienced smaller increases in credit default swaps. It was also found that banks with higher capital ratios could increase their lending to corporations, businesses, and households during the pandemic compared to banks with lower capital ratios. Das and Rout [3] evaluated the relationship between various banking indicators such as CAR, profitability, risk efficiency, and so forth by employing the two-stage least squares method. The study has undertaken 43 Indian SCBs for the period covering 1996 to 2016, and the analysis revealed that CAR has a positive association with profitability and an adverse association with efficiency. Navas, Dhanavanthan, and Lazar [4] examined the behaviour of Indian SCBs in maintaining CAR during Basel II and Basel III from 2009 to 2018. The study found that banks followed an aggressive asset growth approach, increasing their risk-taking ability under Basel II norms.

On the other hand, banks have cut down their asset growth strategy and reduced their risk during Basel III norms to maintain an adequate amount of capital conservation buffer, leverage, and liquidity requirements. Dao and Nguyen [5] identified the determinants of CAR and analyzed the relationship between CAR and bank performance in 16 Vietnamese banks from 2010 to 2017 using a simultaneous equation model. The empirical results found a statistically significant positive impact of equity and liquidity on CAR, whereas a statistically significant negative impact of loans to deposit ratio and inflation on CAR. Rai, Viswanathan, and White [6] analyzed the bank group-wise performance of CRAR in India during the transition period from Basel I to Basel II from 2008 to 2015. The study revealed that foreign banks have the highest CRAR ratios compared to private and public banks, as they were the least affected due to sound financial practices. Goel and Kumar [7] compared the CRAR of five Indian PSBs before and after implementing Basel II norms for the period ranging from 2004–2005 to 2008–2009 by analyzing the Paired t-test. The result revealed an insignificant difference in CRAR under Basel I and Basel II norms. Vishwanathan [8] reported the challenges faced by Indian banks while implementing Basel III norms, such as capital conservation buffers, technology upgrades, skill development, liquidity ratios, leverage ratios, and governance. Kumar and Selvan [9] analyzed public and private sector banks' various capital adequacy and profitability ratios from 2008 to 2014. The study found that all the banks maintained more than 10% CAR, but the performance of the private

[9] Reserve Bank of India. (2022). Financial Stability Report-Issue No. 25. URL: https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/0FSRJUNE 2022F758BFB 27A9145A38 5FE 9AC 8D 204AC 82.PDF (accessed on 22.06.2022).

[10] Bank for International Settlements. (2021). Early lessons from the COVID-19 pandemic on the Basel reforms. URL: www.bis.org (accessed on 22.06.2022).

sector was far better than that of public banks. Aspal and Nazneen [10] investigated the bank-specific determinants of CAR in Indian private sector banks by multiple linear regression analysis from 2008–2012. The researcher found that loans, liquidity, management efficiency, and sensitivity have a statistically significant impact, whereas asset quality has an insignificant impact on the CAR of private banks. Jayadev [11] reported the issues and challenges faced by Indian banks while implementing Basel III accords, such as maintaining adequate capital conservation buffer, enhancing profitability, analyzing the cost of credit, strengthening liquidity standards, sustaining leverage, and amplifying risk-bearing capacity. Mahapatra [12] highlighted the significance of Basel III implementation in Indian banks for strengthening the financial system, enhancing risk absorbency, reducing banking crises, strengthening corporate governance, and maintaining prudential norms. Prakash [13] advocated the significance of Basel norms for facing external shocks, thereby preventing financial crises.

OBJECTIVES OF THE STUDY

- To analyze the component-wise CRAR of Indian Scheduled Commercial Banks.
- To evaluate the distribution of Scheduled Commercial Banks by CRAR in India.
- To compare the CRAR of Public, Private, and Foreign Banks in India.
- To examine the position of CRAR in Indian Scheduled Commercial Banks during the COVID-19 pandemic.

HYPOTHESIS OF THE STUDY

$H_{0:}$ The capital adequacy ratio is the same across Public Sector Banks, Private Sector Banks, and Foreign Banks.

$H_{1:}$ The capital adequacy ratio differs across Public Sector Banks, Private Sector Banks, and Foreign Banks.

RESEARCH METHODOLOGY OF THE STUDY

The present study empirically analyzed the Group-wise CRAR of banks operating in India. The study is entirely based on secondary data extracted from the RBI website. The researcher has examined the significant difference in CRAR among Public, Private, and Foreign Banks for seven years, from 2016 to 2022, by employing the one-way Analysis of Variance (ANOVA) technique.

As per Jackson [14], "ANOVA is an inferential parametric statistical test for comparing the means of three or more groups using a between-participants design and one independent variable". One-way ANOVA implies using one independent variable, CRAR, in the present study. The formula for calculating the F-ratio is:

$$F = \frac{\text{Between} - \text{groups variance}}{\text{Within} - \text{groups variance}}$$

In other words,

$$F = \frac{\text{Systematic variance} + \text{Error variance}}{\text{Error variance}}$$

ANALYSIS AND INTERPRETATION

It is clear from *Table 1* that the CRAR of SCBs has increased continuously from 13.3% at the end of March 2016 to 16.7% at the end of March 2022, accounting for a relative increase of 25.6%. A rise in the amount of Tier I capital essentially drives this increase. SCBs have bolstered their capital ratios during 2020–2022 by raising equity through preferential allotment, private placement, qualified institutional placement (QIP) and capital infusion by the government. Apart from this, higher retained earnings and better management of RWA are also attributable to this increase.

It is evident from *Table 2* that until 31 March 2022, SCBs have successfully maintained an adequate CRAR, which is above 9% as prescribed by the RBI. It is apparent from the table that during the pre-COVID period (before 2020), banks were not so efficient in maintaining CAR. Still, after 2020, there has been immense improvement in capital ratios due to raising capital from the market, improved asset quality, capital infusion, and higher liquidity.

It is clear from *Table 3* that foreign banks have maintained the highest composition of CRAR (i.e.,

Table 1

Component-wise CRAR of SCBs Ending March 31(Amount in ₽ billion)

Particulars	2016	2017	2018	2019	2020	2021	2022
1. Capital Funds	11 647	12,659	13,221	14,092	15,433	17,903	18,354
Tier I Capital	9455	10,414	11,147	12,052	13,194	15,548	15,852
Tier II Capital	2192	2,245	2,074	2,040	2,239	2,355	2,502
2. RWA	87466	92,677	95,596	98,468	1,04,691	1,09,867	1,10,068
3. CRAR (1 as% of 2)	13.3	13.7	13.8	14.3	14.7	16.3	16.7
Tier I	10.8	11.2	11.7	12.2	12.6	14.2	14.5
Tier II	2.5	2.4	2.2	2.1	2.1	2.1	2.2

Source: Reserve Bank of India. (2021c). Report on Trend and Progress of Banking in India 2020–2021. URL: https://www.rbi.co.in (accessed on 22.06.2022).

Table 2

Distribution of Scheduled Commercial Banks by CRAR

CRAR	2016	2017	2018	2019	2020	2021	2022
Below 9%	1	0	1	2	3	0	0
Between 9–10%	2	1	6	2	0	0	0
Above 10%	90	91	80	83	83	78	78

Source: Reserve Bank of India (2021b). Handbook of Statistics on Indian Economy 2020–2021. URL: https://www.rbi.co.in (accessed on 22.06.2022).

Table 3

CRAR of Public, Private, and Foreign Banks (As of end-March)

Year	PSBs			PVBs			Foreign Banks		
	CRAR	Tier I	Tier II	CRAR	Tier I	Tier II	CRAR	Tier I	Tier II
2016	11.8	9.1	2.7	15.7	13.2	2.5	17.1	15.9	1.2
2017	12.1	9.4	2.7	15.5	13.3	2.2	18.7	17.6	1.1
2018	11.7	9.3	2.3	16.4	14.2	2.2	19.1	18.0	1.1
2019	12.2	9.9	2.3	16.1	14.1	2.0	19.4	18.2	1.2
2020	12.9	10.4	2.5	16.5	14.7	1.9	17.7	16.2	1.5
2021	14.0	11.5	2.6	18.4	16.7	1.7	19.5	17.8	1.7
2022	14.6	11.8	2.8	18.8	16.9	1.9	18.9	17.3	1.6
Total	89.3	71.4	17.9	117.4	103.1	14.4	130.4	121	9.4
Mean	12.8	10.2	2.6	16.8	14.7	2.1	18.6	17.3	1.3

Source: Reserve Bank of India (2019). Report on Trend and Progress of Banking in India 2018–2019. URL: https://www.rbi.co.in (accessed on 22.06.2022).

17.1% — 19.5%) followed by private (i.e., 15.7% — 18.8%) and public (i.e., 11.8% to 14.6%) sector banks. Mergers of banks have contributed significantly to improving the capital position of constituent banks due to pooling resources, declining bad loans and fresh slippages, improving profitability, increasing efficiency, and taking advantage of various scale economies. It is also apparent that PSBs have higher Tier II capital than private and foreign banks, which implies that PSBs have more subordinate debt than their counterparts. Although the CAR of PSBs increased after 2020 due to decreased NPA levels, recapitalization by the government and raising of capital from the market.

RESULTS AND DISCUSSIONS

ANOVA analysis requires satisfaction of certain assumptions, namely (a) Independence of cases, (b) Normality, and (iii) Homogeneity of Variance [25]. The assumption of independence is satisfied as all three bank groups (i.e., PSBs, PVBs, & FBs) are independent. The results of the normality and homogeneity assumptions are as follows:

Table 4

Tests of Normality

	Kolmogorov-Smirnov*			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
CRAR	.139	21	.200**	.905	21	.054

Source: Computed through SPSS 20.

Note: * Lilliefors Significance Correction; ** This is a lower bound of the true significance.

Table 4 reveals that the underlying distribution is normal as the probability statistics of CRAR is more than 0.05 in Kolmogorov-Smirnov and Shapiro-Wilk tests.

Table 5

Levene's Test of Equality of Error Variances*

Dependent Variable: CRAR			
F	df1	df2	Sig.
.663	2	18	.527

Source: Computed through SPSS 20.

Note: * Design: Intercept + Group; Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

It is evident from *Table 5* that Levene's test statistics is .527, which is greater than 0.05 and hence, the assumption of homogeneity of variance is also satisfied.

The result of descriptive statistics shows that the mean value of CRAR is highest in Foreign Banks (i.e., 18.6%) followed by Private (i.e., 16.7%) and Public (i.e., 12.7%) banks *Table 6*. The standard deviation of PVBs was highest compared to public and foreign banks, which indicates that the CRAR value in PVBs deviates most from the mean.

Table 7 reveals a one-way ANOVA analysis at 95% confidence level. The p-value is .000, which is less than 0.05, which is the statistical significance criterion. Hence, it can be inferred that the null hypothesis (H0) is rejected, meaning there is a statistically significant difference in CRAR across public, private, and foreign banks.

The difference is mainly attributed to higher risk-weighted assets (RWA) in PSBs than in private and foreign banks. The difference is also because the Tier-II Capital of PSBs is highest, which implies that they have a more subordinate amount of debt capital, which causes their CAR level to be lower than that of PVBs and FBs. In contrast, FBs have the highest Tier I capital, which indicates more financial soundness. Foreign banks also have the highest CRAR composition, ranging from 17% to 20%, followed by PVBs from 14% to 19% and PSBs ranging from 10 per cent to 15 per cent.

CONCLUSION

The study observed consistent improvement in the CRAR level of SCBs despite the COVID-19 pandemic. This improvement is mainly attributable to higher retained earnings, restructuring of advances, recapitalization of PSBs by the Government, raising capital from the market, and continuing asset classification standstill. The improvement was driven by a rise in Tier-I capital, core capital available to banks for risk absorption, mainly attributable to equity. This emphasized that banks worked on building their internal capital and retaining a higher amount of capital during COVID-19. The study

Table 6

Descriptives Statistics Dependent Variable: CRAR

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
PSBs	7	12.757	1.1356	.4292	11.707	13.807	11.7	14.6
PVBs	7	16.771	1.3035	.4927	15.566	17.977	15.5	18.8
FBs	7	18.629	.8995	.3400	17.797	19.460	17.1	19.5
Total	21	16.052	2.7283	.5954	14.810	17.294	11.7	19.5

Source: Computed through SPSS 20.

Table 7

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	126.087	2	63.043	49.802	.000
Within Groups	22.786	18	1.266		
Total	148.872	20			

Source: Computed through SPSS 20.

also unveiled that the CRAR of SCBs improved sequentially every year from 31 March 2016 to 31 March 2022, and there has been a visible shift in the CRAR distribution of banks. There has been a significant improvement in the financial soundness of SCBs from 2020 to 2022 due to improvements in their asset quality, strong liquidity base, and sturdy leverage position.

The results of the ANOVA analysis revealed a statistically significant difference among the CRARs of public, private, and foreign banks. Despite the increased stressed assets, PSBs have improved their CRARs but still lagged behind private and foreign banks. Hence, PSBs have to manage their accumulation of RWA. Resource mobilization through public and rights issues, followed by follow-on public offers, has helped PVBs improve & maintain their capital ratios. Capital infusion by the government is the biggest factor contributing to higher capital ratios and lower NPA ratios in PSBs during 2020–2022. Since 2014, the government has infused Rs. 3.43 lakh crore in PSBs, which helped them expand their minimum capital requirement and capital conservation buffer. On the other hand, a reduction in the risk-weighted assets of PVBs and FBs has helped them boost their capital requirements.

The study also observed that banks have effectively met capital conservation buffer, liquidity, and leverage requirements under Basel III norms, increasing their financial stability and providing a cushion against unprecedented losses caused by COVID-19. Further, the decrease in the lowest levels of non-performing assets in six years has also increased the profitability of banks, which helps them maintain a higher level of CAR and additional capital buffers. As a result, banks' credit growth increased to double digits, which also enhanced their CAR levels. In addition, regulatory dispensations provided by the RBI have built up the risk absorption capacity of banks.

The study revealed that the capital adequacy position of public banks improved in the post-coveted period (i.e., in the years 2021 and 2022) due to higher capital infusion, recapitalization and raising of capital. In contrast, it improved in private banks due to raising capital through private placement and a low level of RWA. On the other hand, the CAR level of FBs came down in the post-coveted period from 19.5% in 2021 to 18.9% in 2022 due to a decrease in core capital.

The main purpose of implementing Basel norms in internationally active banks is to strengthen the banking system's resiliency so that they can face unprecedented global economic downturns and continue to perform their basic functions effortlessly. Indian banks have maintained a higher level of capital and liquidity, which helped them to absorb the sizeable impact of the coronavirus pandemic. If the banks had not strictly followed the Basel norms, they could have faced greater stress. The SCBs have successfully shored their capital position and strengthened their loss-absorption capacity against imminent COVID-19-induced loan delinquencies. Hence, CAR has proven to be a panacea for Indian banks during the COVID-19 pandemic to carry out their primary functions of providing credit and other essential services.

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Author's declared contribution:
N. Fatima — defined the research problem, objectives of the study and developed the conceptual framework of the study.
N. Singhal — analyzed the literature, collected the data and conducted the analysis.
S. Goyal — wrote the conclusions of the research and implication of the study.
R. Sheikh — compiled the tables and interpreted the results.
P. Sharma — revised the manuscript.

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