Impact of Covid-19 on Non-Performing Assets (NPAs): A Study of Major Public & Private Sector Banks and the Policy Response to the Pandemic

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Abstract

For a banking sector still recovering from the NPA crisis of the last decade, the Covid-19 pandemic could not have come at a worse time. Faced with the deepest economic slump in the nation's history, the country's banks and economic policymakers had the hard task of simultaneously preserving asset quality and granting relief to distressed borrowers. This paper is an attempt to assess the degree to which their efforts succeeded over the first nine months of FY 2020-21. It addresses the subject through a comparative analysis of secondary data obtained from the country's major public and private sector banks. With the pandemic still with us, and with the impact of the relief measures implemented in response to it yet to fully work through the system, the paper is necessarily constrained by having to work with data that may be revised in the future. Subject to this limitation, however, it finds that there continues to be a significant disparity in the performance of public and private sector banks in the area of NPA management. It also finds that larger banks haven't out performed their smaller peers on the NPA front, and that various interventions by the government and the RBI to help borrowers have become embroiled in court battles whose outcomes remain uncertain.

Keyword: Covid-19, Gross NPA, moratorium, loan restructuring, interest waiver

Introduction

: The Covid-19 pandemic has affected all sectors of the Indian economy, with some – such as hospitality, travel and construction, among others - being particularly worse hit (Chandrasekaran 2021). The impact on banking has been complex and unusual in at least two ways. To begin with, banking was kept out of the purview of the national lockdown imposed in March 2020, as it was deemed an "essential" service (Guidelines). This meant that unlike much of the economy, banking operations were relatively unaffected during the early months of the current financial year (FY 2020-21) when most offices, factories and business establishments were forced to either stop functioning or shift to work-from-home mode (Paliwal 2020)

However, with banks being intimately connected to virtually every part of the economy as lenders, payment platforms and recipients of savings, it was inevitable that distress in the wider economy would affect their balance sheets at some point. The main channel through which economic slumps usually affect banks is the rise in loan defaults and the consequent increase in Non-Performing Assets (NPAs) (Iyer 2020). But in the context of the Covid-induced recession, the announcement of several relief measures for borrowers by the government, the RBI and the Supreme Court introduced an element of complexity to how this channel has worked.

Against this backdrop, the current study looks at the impact of the pandemic on the asset quality of major public sector and private sector Indian banks by unravelling four related strands of the issue. First, it considers the question of whether there is a significant difference in the degree of impairment in asset quality of public and private sector banks since the onset of the pandemic. Second, it looks for evidence (from the pandemic period) for the claim that the size of a bank's loan book is a factor in determining its level of NPAs. Third, it compares the NPA levels of the sampled banks in March 2020 with the levels of December 2020. And finally, it examines the relief measures rolled out by the government and RBI that shaped the way banks responded to borrower distress

The comparison of the public and private sector banks is topical as the government has signalled a renewed push towards bank privatization ("Privatisation of PSU banks" 2021). Similarly, examining the relationship between the size of loan book and the level of NPA is relevant at a time when smaller banks are being merged with larger banks in the belief that the larger banks would be more efficient(Ohri 2020).

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Comparing NPA levels of March and December would give us a sense of the impact of the pandemic, and the examination of the policy response would help illuminate the path forward for the banking sector as a whole.

Statement of the problem

The paper examines whether the asset quality of public and private banks has been differentially affected during the pandemic period and also whether larger banks are at an advantage from the standpoint of keeping NPAs down.

Objectives

- 1. To determine if the Gross NPA ratios of public and private sector banks are significantly different over the first three quarters of FY 2020-21.
- 2. To determine if the overall NPA ratios of banks have varied significantly between March 2020 and December 2020.
- 3. To test the claim that the size of a bank's loan book is a factor in determining its level of NPAs
- 4. To critically review the relief measures undertaken by the government and the RBI to deal with borrower distress due to the pandemic.

Methodology

(a) Data:

- The paper uses purposive sampling to select the 7 largest public sector and private sector banks in India (for a total sample size of 14), the banks being ranked on the basis of their outstanding advances as at the close of Financial Year 2019-20 (i.e. as on 31.03.2020)
- > Secondary data obtained from the published quarterly results of the sampled banks over the first 3 quarters of Financial Year 2020-21 (April-June 2020, July-September 2020, October-December 2020) is used for the purpose of analysis
- > Secondary data from newspapers, news magazines, RBI circulars and reports published by consultancy firms is used in discussing and analyzing the policy response to the pandemic.
- The main variables used in the study are the level of Gross Non-Performing Assets (GNPA) and the GNPA ratio i.e. the ratio of GNPA to Gross Advances (expressed in percentage terms). The level of GNPA represents the total NPAs of a bank on a given date (without netting off provisions) while Gross Advances represent total outstanding advances.

(b) Techniques:

The paper uses Student's t-test (paired samples), Welch's t-test (unequal variances t-test) and chisquare test for hypothesis testing, the tests being run using MS Excel and statistical calculators available on the Internet.

(c) Hypotheses:

- i. H0: The difference in the Gross NPA (GNPA) ratios of public sector and private sector banks over each of the first three quarters of FY 2020-21 is not statistically significant.
 - Ha:The difference in the Gross NPA (GNPA) ratios of public sector and private sector banks over each of the first three quarters of FY 2020-21 is statistically significant.
- ii. H0: The difference in the Gross NPA (GNPA) ratios in the banking sector between March 2020 and December 2020 is not statistically significant.
 - Ha:The difference in the Gross NPA (GNPA) ratios in the banking sector between March 2020 and December 2020 is statistically significant.
- $iii. \ \ H0: A \ bank's \ gross \ NPA \ level \ is \ independent \ of \ its \ overall \ level \ of \ advances.$
 - Ha: A bank's gross NPA level is not independent of its overall level of advances.

Results & Analysis

(a) Hypotheses tests:

- $I.\ Comparison\ of\ the\ Gross\ NPA\ ratios\ of\ public\ and\ private\ sector\ banks:$
- (i) First Quarter (As on 30.06.2020)

Table 1: Gross NPA as on 30 June 2020

Public Sector	GNPA %	Private Sector	GNPA %
State Bank of India	5.44	HDFC Bank	1.36
Bank of Baroda	9.39	ICICI Bank	5.46
Punjab National Bank	14.11	Axis Bank	4.72
Canara Bank	8.84	Kotak Mahindra Bank	2.70
Union Bank of India	14.95	IndusInd Bank	2.53
Bank of India	13.91	Yes Bank	17.30
Indian Bank	10.90	Federal Bank	2.96

(Source: Bank Quarterly Financial Results)

Null Hypothesis (H₀): There is no significant difference in the GNPA ratios of public sector and private sector banks.

Alternative Hypothesis (H_a): There is a significant difference in the GNPA ratios of public sector and private sector banks.

Significance level (α) = .05; Critical value for two tailed test (α = .05, df = 10) = 2.228, t-value = 2.364; p-value = .040

Decision: The difference in GNPA ratios of public and private sector banks is significant at p<.05 hence H_0 is rejected

(ii) Second Quarter (As on 30.09.2020)

Table 2: Gross NPA as on 30 September 2020

Public Sector	GNPA %	Private Sector	GNPA %
State Bank of India	5.28	HDFC Bank	1.08
Bank of Baroda	9.14	ICICI Bank	5.17
Punjab National Bank	13.43	Axis Bank	4.18
Union Bank of India	14.71	Kotak Mahindra Bank	2.55
Canara Bank	8.23	IndusInd Bank	2.21
Bank of India	13.79	Yes Bank	16.90
Indian Bank	9.89	Federal Bank	2.84

(Source: Bank Quarterly Financial Results)

Null Hypothesis (H₀): There is no significant difference in the GNPA ratios of public sector and private sector banks.

Alternative Hypothesis (H_a): There is a significant difference in the GNPA ratios of public sector and private sector banks.

Significance level (α) = .05; Critical value for two tailed test (α = .05, df = 10) = 2.228 t-value = 2.326; p-value = .042

Conclusion: The difference in GNPA ratios of public and private sector banks is significant at p<.05 hence H_0 is rejected.

(iii) Third Quarter (As on 31.12.2020)

Table 3: Gross NPA as on 31st December 2020

Public Sector	GNPA %	Private Sector	GNPA %
State Bank of India	4.77	HDFC Bank	0.81
Bank of Baroda	8.48	ICICI Bank	4.38
Punjab National Bank	12.99	Axis Bank	3.44
Canara Bank	7.46	Kotak Mahindra Bank	2.26
Union Bank of India	13.49	IndusInd Bank	1.74
Bank of India	13.25	Yes Bank	15.36
Indian Bank	9.04	Federal Bank	2.71

(Source: Bank Quarterly Financial Results)

Null Hypothesis (H₀): There is no significant difference in the GNPA ratios of public sector and private sector banks.

Alternative Hypothesis (H_a): There is a significant difference in the GNPA ratios of public sector and private sector banks.

Significance level (α) = .05; Critical value for two tailed test (α = .05, df = 11) = 2.200 t- value = 2.437; p-value = .033

Decision: The difference in GNPA ratios of public and private sector banks is significant at p<.05 hence H_0 is rejected.

(iv) Third Quarter (As on 31.12.2020)- Notional NPA*

Table 4: Gross Notional NPA as on 31st December 2020

Public Sector	GNPA %	Private Sector	GNPA %
State Bank of India	5.44	HDFC Bank	1.38
Bank of Baroda	9.63	ICICI Bank	5.42
Punjab National Bank	14.76	Axis Bank	4.55
Canara Bank	8.95	Kotak Mahindra Bank	3.27
Union Bank of India	15.29	IndusInd Bank	2.93
Bank of India	14.59	Yes Bank	22.32
Indian Bank	10.38	Federal Bank	3.38

(Source: Bank Quarterly Financial Results and authors' calculation)

Null Hypothesis (H₀): There is no significant difference in the GNPA ratios of public sector and private sector banks.

Alternative Hypothesis (H_a): There is a significant difference in the GNPA ratios of public sector and private sector banks.

Significance level (α) = .05; Critical value for two tailed test (α = .05, df = 9) = 2.262 t-value = 1.665; p-value = .13

Decision: The difference in GNPA ratios of public and private sector banks is not significant at p<.05hence H_0 is not rejected.

II. Comparison of Gross NPA levels of 31.03.2020 and 31.12.2020

Table 5: Comparative GNPA (31st March 2020 vs 31st December 2020)

Bank	GNPA % (March 20)	Notional *GNPA % (Dec 20)
State Bank of India	6.15	5.44
Bank of Baroda	9.4	9.63
Punjab National Bank	13.79	14.76
Canara Bank	9.39	8.95
Union Bank of India	14.59	15.29
Bank of India	14.78	14.59
Indian Bank	11.39	10.38
HDFC Bank	1.26	1.38
ICICI Bank	6.42	5.42
Axis Bank	4.86	4.55
Yes Bank	16.8	22.32
Kotak Mahindra Bank	2.2	3.27
Federal Bank	2.84	3.38
IndusInd Bank	2.45	2.93

(Source: Bank Quarterly Financial Results and Annual Reports)

Null Hypothesis (H ₀): The GNPA ratios of March 2020 and December 2020 are not significantly different.

Alternative Hypothesis (H _a): The GNPA ratios of March 2020 and December 2020 are significantly different.

Significance level (α) = .05; Critical value for two tailed test (α = .05, df = 13) = 2.160 t- value = -0.988; p-value = 0.34

Conclusion: The GNPA ratios of March 2020 and December 2020 are not different at p<.05, hence H_0 isnot rejected significantly

III. Testing the claim that a bank's NPA level is independent of the size of its overall level of advances (data as on 31.12.2020)**

Table 6: Gross Advances and Gross NPA as on 31st December 2020

	O/s Advances		GNPA	
Bank	(Rs in Crore)	% of total	(Rs in Crore)	% of total
State Bank of India	24,56,607	26.89	1,17,244	19.21
HDFC Bank	10,82,324	11.85	8,826	1.45
Bank of Baroda	7,45,420	8.16	63,182	10.35
Punjab National Bank	7,27,432	7.96	94,479	15.48
ICICI Bank	6,99,017	7.65	34,860	5.71
Canara Bank	6,67,561	7.31	49,789	8.16
Union Bank of India	6,51,973	7.14	87,968	14.42
Axis Bank	5,82,754	6.38	21,998	3.61
Bank of India	4,14,987	4.54	54,997	9.01
Indian Bank	3,89,646	4.27	35,237	5.77
Kotak Mahindra Bank	2,14,103	2.34	4,928	0.81
IndusInd Bank	2,07,128	2.27	3,651	0.60
Yes Bank	1,69,721	1.86	29,547	4.84
Federal Bank	1,25,505	1.37	3,470	0.57
Total	91,34,178	100	6,10,176	100

(Source: Bank Quarterly Financial Results)

^{*}In its order dated 3rd September 2020, the Supreme Court directed banks to not declare accounts as NPA until further orders. However, in their third quarter results, most of the banks considered in this paper reported their "notional" GNPAs i.e. the GNPA figures including those loan accounts that would have been declared NPA in the absence of the Court order. While Punjab National Bank, Yes Bank and Union Bank of India did not explicitly report notional GNPAs, the figures used here were calculated from available data in their quarterly reports.

Null Hypothesis (H_0): The GNPA sof banks are independent of their level of advances. Alternative Hypothesis (H_a): The GNPA sof banks are not independent of their level of advances.

p-value = 0.0001; $\chi^2 = 40.670$; df = 13; Correlation Coefficient: 0.671

Conclusion: As result is significant at p<.05, H_0 is rejected.

** The above test uses an individual bank's share of total advances as the "expected" frequency and its share of total GNPAs as the "observed" frequency for the chi-square test.

Discussion: As the above tests show, the difference between the GNPAs of public and private sector banks is significant for each of the three quarters of FY21. However, an unexpectedly interesting result is that when we consider Notional GNPAs instead of the official GNPA figures for the third quarter (i.e. 31.12.2020), the difference between the two categories of banks turn out not to be significant. It must be noted, however, that the data for the private sector is skewed by Yes Bank's unusually stressed balance sheet.

On balance, therefore, the assumption that private banks are better than public sector banks at credit management is rather well supported by the evidence offered by the pandemic period. And this implies that the government's support for privatization to improve the overall health of the banking sector is eminently sensible.

The fact that GNPA ratios of all the sampled banks haven't significantly worsened over the nine month period from March to December 2020 is contrary to expectations. But in light of the moratorium and restructuring framework rolled out by the RBI (discussed in the next section) this result should not be interpreted to mean that everything is fine in the banking system.

The analysis does not, however, support the idea that the amalgamation of smaller banks to form large banks actually improves things on the NPA front. Now since this conclusion is based on the limited data of just 9 months, it does not entirely discount the logic of building banking giants. But when taken alongside the American experience from the great financial crisis of 2008 – where large, unstable banks contributed to the economic crisis (Morris 2020)—it does underline the need for caution in pursuing industry wide consolidation.

(b) RBI & Government Response

Almost immediately after the first Covid-19 cases began to be reported in India there was concern over how the pandemic would affect our already fragile banking system. Even without a government imposed lockdown and the consequent freeze in the economy, the drop in demand in high-contact sectors like restaurants was bound to impact banks ("Impact of corona virus on financial institutions 2020"). This is because businesses facing a sharp decline in sales were naturally at high risk of defaulting on their loans, while individuals facing job loss or salary cuts were also expected to be hard-pressed to pay their EMIs on time.

Once the lockdown was imposed, however, the situation turned dire. With almost all economic activity halted, thousands of businesses and individuals suffered a drastic overnight income loss. Under these circumstances it was almost a given that there would be widespread default on both personal and business loans. So relief of some kind became inevitable.

While massive liquidity infusion by the RBI was a critical component of the overall support given to banking (Kumar 2020), for the purpose of this paper we shall focus on the relief measures that directly affected asset quality and asset classification.

Moratorium: The most immediate relief measure announced by the RBI was the loan moratorium. This allowed borrowers whose loans weren't overdue by more than 30 days on 1 March 2020 to defer loan instalments falling due between 1st March 2020 and 31st May 2020 without hurting their credit history and without having their accounts marked NPA. In effect, this was a suspension of the normal rule of categorizing loans as NPA upon 90 days of default (RBI Circular, 2020a and RBI Circular, 2020b)

Though this wasn't a waiver, it relieved the immediate pressure on borrowers to service their loans. It was hoped that as the lockdown was lifted and economic activity revived, individuals and businesses would be able to resume their repayments. The initial moratorium was later extended till August 30(RBI Circular,

2020c), and on September 3, the Supreme Court ruled that banks had to maintain their existing asset classification (i.e not downgrading accounts into NPA) until further orders ("SC on Loan Moratorium Highlights: Apex court reserves judgment on a batch of petitions 2020"). As on 15th March 2021, the final ruling from the Supreme Court is awaited, and so effectively the loan moratorium remains in place.)

Even as the moratorium was underway, there was some controversy over banks charging compound interest on outstanding loans. This meant that even as repayments were deferred, the overall loan burden actually increased due to the accrual of unpaid interest. With growing public pressure to extend some kind of relief, the government eventually decided to bear the cost of the "interest on interest" for the moratorium period for all personal and SME loans of upto Rs 2 crore (Scheme for grant ex-gratia payment).

Restructuring: Recognizing that the disruption caused by Covid-19 would continue to adversely affect the economy even after the pandemic has passed, in September 2020, the RBI issued guidelines on the restructuring of loans that were facing stress due to the pandemic(RBI Circular, 2020d and RBI Circular, 2020e). These guidelines – which were largely based on the recommendations of the expert committee set-up under the chairmanship of veteran banker KV Kamath – laid down the criteria for reworking the terms and conditions of outstanding loans. The restructuring could involve changes in the repayment schedules, interest concessions or a moratorium of up to 2 years, all of which had to be based on a comprehensive board approved policy for each individual bank.

Unlike the older restructuring framework (RBI Circular, 2019) which required "Standard" loans (i.e. those not in default) to be downgraded to NPA category in case concessions were given to a borrower without changes in ownership of the business, the new guidelines allowed loans to be restructured without change in their asset classification (i.e. "Standard" loans would remain standard) even if the owners remained the same. However banks have to increase their provisioning against restructured loans

The new framework also lays down detailed financial benchmarks for 26 different sectors, which were to be incorporated into any restructuring plan. These essentially involved specific floors or ceilings for financial parameters like leverage ratios, current ratios etc (RBI Circular, 2020e).

Halt to IBC proceedings: Besides imposing a standstill on asset classification – that is, not downgrading loans to NPA category despite default – the government also suspended the application of the Insolvency and Bankruptcy Code. The IBC had been introduced in 2016 to bring about swift resolution of NPAs and liquidation of bankrupt companies. The idea was to unlock funds tied up in businesses that had little or no hope of clearing their over dues through regular revenue flows (Tripathi and Gupta). However, in view of the widespread distress caused by Covid-19, the government suspended IBC proceedings for all defaults arising after 25th March 2020 (day of the lockdown). As of 28th February 2021, the suspension stands extended till 31st March 2021 ("IBC suspension extended till March 2021").

Discussion: While the initial moratorium was unavoidable, its continuation well past nine months, and almost extending into the next financial year, needs to be seriously rethought. The RBI and the government have already told the Supreme Court that any further extension of the moratorium would not only delay a transparent accounting of the real state of affairs in banks, but would also damage overall credit discipline and encourage a culture of "delinquency" ("Loan moratorium scheme: Extension of time given to borrowers not viable 2000"). Under these circumstances, it would be prudent for the Court to vacate its order of 3rdSeptember 2020, which has, for all practical purposes, indefinitely extended the moratorium.

The Gross NPA ratio of Scheduled Commercial Banks (SCBs) came down from a peak of 11.5% in March 2018 ("Scheduled banks healthier now as gross NPA ratio dips in FY19") to 8.5% in March 2020 (Arun 2000). Given the blow dealt to the broader economy by Covid-19, with negative growth in the first two quarters of FY 20-21, loan defaults were only to be expected. However, as we saw above, this has apparently not led to a significantly greater deterioration in asset quality among the country's 14 largest banks over the nine month period from April to December 2020, even when the figures considered for December 2020 are notional NPAs. This raises obvious doubts about the reliability of the numbers.

Although banks may not have been deliberating concealing their NPAs, it is safe to assume that a sizeable chunk of loans that would otherwise be marked NPA have been restructured. The exact magnitude of asset impairment would only be known when audited annual reports are released later in the year, but unless the

original moratorium is withdrawn, the reported figures for actual NPA and restructured accounts won't be credible.

The quarterly reports of banks also reveal that despite the moratorium, banks continue to have slippages(RBI Financial Stability Report, 2021), It is not clear how standard loans slipped into NPA category even as the moratorium was in effect. While this is not impossible – since there are other reasons besides default why loans may be classified as NPA – the entire picture would remain murky until the moratorium is lifted.

In this context, the onus now lies with the Supreme Court to swiftly dispose of all pending petitions calling for either an extension of the moratorium or a complete interest waiver. The court needs to recognize that economic activity has revived in most sectors and corporate profits are soaring ("Corporate profits touch all-time high in the September quarter 2000"). As such, many large borrowers may be perfectly capable of resuming repayment. Regarding smaller borrowers, the restructuring guidelines of the RBI, which are expected to be further enlarged, provide the right framework for granting longer term relief to stressed accounts.

Banks for their part need to be extra careful to ensure that only deserving borrowers facing a genuine cash crunch due to the pandemic receive concessions and assistance. This is easier said than done, since it would be a challenge to determine the extent to which the financial woes of particular companies are attributable to the pandemic itself as opposed to other factors that could well be within the control of their managements. As the Economic Survey (2021) has pointed out, "ever greening" of loans in the name of restructuring was a major contributor to India's NPA crisis in the period after the global financial crisis. The mistake should not be repeated.

The other major issue is the possibility of the Supreme Court ordering a general interest waiver for the entire moratorium period (1st April to 31st August 2020). The government has already informed the court that any such waiver would be catastrophic, with a likely cost of Rs 6 lakh crore, something neither banks nor the government can bear ("Loan moratorium scheme: Extension of time given to borrowers not viable"). The Indian Banking Association (IBA) in an affidavit before the court had also mentioned how SBI alone earned Rs 88,000 crore in interest from its borrowers during the moratorium period, which covered the Rs 75,000 crore it paid as interest to its depositors in the same period. (Singh). Any blanket interest waiver would therefore either wreck the financials of banks or lead to a default on their obligations to depositors. On the other hand, if this cost is meant to be borne by the taxpayer, then the right forum to discuss the matter is Parliament, not the judiciary. One can only hope that as and when a final ruling comes, the Court would be mindful of the broader economic implications of any interest waiver, whether partial or total.

The government should also avoid extending the suspension of the IBC beyond the current deadline of 31st March 2021. As in the case of repayments, there was clearly a need in March 2020 to put insolvency proceedings on hold as thousands of businesses, big and small, were struggling to stay afloat. But continuing with the suspension for too long would defeat the very purpose of introducing the IBC in the first place.

The RBI's Financial Stability Report for January 2021estimates that the GNPA ratio for all Scheduled Commercial Banks could climb to 13.5 % by September 2021 (from 7.5% in September 2020) under the baseline scenario, and upto 14.8% under the severe stress scenario. While things could very well turn out to be better than that, it is crucial that the reported NPA figures are a true reflection of the health of our banking sector. Without knowing how bad things really are, no remedial action would be effective.

Conclusion

The foregoing discussion and analysis lend support to the hypothesis that private banks have been better than government-owned banks at maintaining asset quality, thus strengthening the case for the government's privatization push.

However, going by the statistical evidence from the pandemic period, it is not apparent that larger banks are necessarily at an advantage in keeping NPAs down. The drive towards consolidation in the banking sector may, therefore, be approached with caution.

Somewhat surprisingly, the analysis does not indicate that the NPA situation in December 2020 was any worse than it was in March 2020. However, this conclusion needs to be read with caresince we don't yet

know the true extent of deterioration in bank balance sheets because of restructuring and the continued moratorium.

Finally, in response to the pandemic, the government and the RBI rolled out a raft of measures to give relief to borrowers. But as important as the measures were, it is time now for policy makers to gradually return to normal regulatory practices while continuing to provide support to sectors that genuinely require a helping hand.

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