

## IMPACT OF CREDIT RISK ON CAPITAL OF URBAN CO-OPERATIVE BANKS

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### **Abstract**

Risk reduces returns and equity. The banks whether commercial or co-operative, are subject to several risks predominantly being market risk, interest risk, credit risk, operational risk, etc. Among them, credit risks predominate in the co-operative banks due to certain operational and legislative limitations. Hence, an attempt is made in this present paper to evaluate the impact of credit risk reflected in the size of non-performing assets, the only on their capital. With this end in view, the sensitivity analysis was undertaken signifying the change in the non-performing assets on the change in the capital to risk adjusted assets. The paper concludes that one per cent increase in the NNPA would affect the capital to an extent of roughly 0.35 per cent and 0.29 per cent respectively; and that sensitivity of capital to NNPA had never been volatile as revealed from the standard deviation of sensitivity.

**Key Words:** Credit dispensation, Net non-performing assets; delinquency, credit risk, sensitivity;

### **1. Introduction**

The advent of the current century discerned the spectacular rise of the urban cooperative banks generally in India and especially in Maharashtra. They have effectively spearheaded in commercial banking competing with powerful and resourceful public and private commercial banks. Their competitive advantage, which has hitherto been ignored, ushered due to the new found customer- affiliation. Dr. P.N. Vasnani (1) from the Vaikunthalal Mehta Institute of Co-Operative Management, Pune, in this context, made a pertinent remark, saying, "Off late, the cooperative banking business particularly in Maharashtra and Gujarat, has captured the most potential segments of customers spatially and culturally close to these banks". Their public acceptability has substantially been intensifying primarily for two significant reasons, (i) common customers have totally got disoriented from the diminishing responsiveness of the branch-level operatives of public sector commercial banks and (ii) they find cultural and social affinity or fellow-feeling with the operatives of a local co-operative bank. Here, customers rarely come across the air of dissonance or dissension with the frontline staff of the co-operative banks. Prof. R. N. Kishore (2) pertinently remarks "In fact, a branch of the local co-operative bank clearly reflects the culture, legacy, predisposition and affinity towards the customers". "The customers value manner of rendering services rather than the package of operations". These perceptible changes seemed to have empowered the expansion of the business of co-operative banks in local areas. They are the best intermediary between the money lenders on

one side and commercial banks on the other. Further, Malathi S. Somasunderam, (3) Professor of Financial Management at the Co-Operative Banking College, Chennai, Pune, remarked in these words, “The growth of banking business by the urban cooperative banks has been undoubted spellbinding since last two decades in many states of the country, but at the same time the degree of risks associated with the expansion cannot be overlooked”. The Reserve Bank of India has been issuing from time to time many effective directives for taking appropriate steps for the sole purpose of managing their business risks. Their risks are not dissimilar to those of commercial public and private sector banks. Obviously, the business of banking, irrespective of its form of business, is susceptible to several risks.

## 2. Definition and kinds of risks

Risk is normally defined as an estimated impending loss in pursuit of any project for certain expected benefits. There is no project or activity without involving any risks that:

- Invokes its pursuers to carefully and cautiously consider as many factors of the project as possible ;
- Induces the pursuers to work diligently and intelligently; and
- Increases the challenges when additional information sweeps in.

Thus, the risks reduce returns. With a view to enhancing the returns, therefore, the risk mitigation exercises need to be suitably and vigorously launched by the managements of these banks whatever may be their form of structure. The significant risks need to be covered are : (i) Liquidity risk, (ii) Interest rate risks, (iii) Market risks, (iv) Credit risks, and (v) Operational risks.

Among the aforesaid risks, the credit risks are formidable causing diminution in assets and reduction in profits of the banks. These risks ultimately weaken their capital structure to an alarming situation. Substantively, these were the reasons which prompted to undertake this study.

## 3. Risk alleviating features

The co-operative banks, which are subject to the Banking Regulation Act, 1949, the Maharashtra State Co-operative Societies Act, 1960, the guidelines issued from time to time by the Reserve Bank of India, have many following favourable features substantively alleviating the credit risks.

[1] The lending operations of the UCBs are ordinarily less likely to encompass major agricultural, industrial, and transport sectors etc., involving commitment of huge funds for long times;

[2] Their lending operations are legally restricted to the local projects normally within the area of the district;

[3] It is mandatory for the borrowers of a co-operative bank to purchase its equity shares disposable after the final settlement of the outstanding loans and advances; such provision makes every borrower a shareholder with the status and responsibility as the equity holder;

[4] The most employees, officers, directors of a co-operative bank and its borrowing clientele are people sharing almost the same culture, language and ethos thereby ushering very close acquaintance and affinity essential for minimizing credit risk; social distance between the co-operative bank and its customers is observed to be short;

[5] Since the co-operative bank and its borrowing clientele reside within the same district, the formalities of identification, verification, documentation, registration of documents etc are carried out smoothly and speedily by the district authorities;

[6] All necessary and reliable customer information is easily procurable and accessible for the co-operative bank through local informers and acquaintances within a district within a short period without additional cost.

#### **4. Objective of the Study:**

Against the above backdrop, the objectives of this proposed study are to:

- Examine and study the trend in the Capital to risk adjusted ratio with reference to the Gross Non-performing assets as well as the Net Non-performing assets;
- Analyse the impact of Capital to risk adjusted ratio on the return on assets; and
- The sensitivity of the capital to risk adjusted ratio to return on assets.

#### **5.. Hypothesis for the Study:**

UCBs have gained enviable and incredible experience in providing loans and advances to mostly individual enterprises in business, agriculture and priority sectors over the last few decades in local and adjacent areas which is known to the officials of UCBs. In the light of accessible and well cognized business space, the hypotheses formulated are as under:

Hypothesis I. The credit risks in UCBs would likely to be mitigated by effective follow-up and control recovery measures since the borrowing clientele are not socially distanced;

Hypothesis II. The credit risk market risk is likely to be alleviated by further industrial and commercial dispersion of loans and advances; the larger the range of dispersion, the less would be chances of delinquency;

Hypothesis III. The operational risk as well legal risks in UCBs would likely to remain in check as a result of cordial inter-personal relations among the employees and encouraging ambience in the branch of the UCB; and

Hypothesis IV: The degree of credit risks as not crossed the norms of stipulated ranges at their annual audit reports are clean.

#### **6. Selection and data collection**

The study pertains to six prominent UCBs- three of which belong to class 'A' and other three to the class 'B' according to their annual audited reports- all are registered at Nagpur and functioning in the district Nagpur; it covers the period of five years i.e. 2015-17 to 2020-21 both inclusive; The data was collected from their published annual reports and all derivatives are worked out from the data sourced therefrom.

#### **7. Rationale of the study**

What requisitioned the necessity of the present study were the significant trends in their basic operational variables having the direct bearing on the credit risk since last quinquennium. A few of them are analysed in this context.

[a] Movements in Index Numbers

The amount of total credit dispensation i.e. loans and advances outstanding by the end of the year, made by UCBs of both classes are converted into index numbers for simple comparison.

In addition, the index numbers of the total gross non-performing assets of those UCBs are furnished with the base year of 2015-16 for congruous presentation. They indicate how far the lending activities continued during the period despite the rising of GNPA.

Table: 1: Index Numbers of Credit dispensation and gross non-performing assets:  
(Base year 2015-16= 100)

Year	UCB CLASS A		UCB- CLASS B	
	CD	GNPA	CD	GNPA
2016-17	120	124	110	104
2017-18	118	128	106	113
2018-19	125	135	111	105
2019-20	137	139	116	103
2020-21	130	140	121	117

Sources: Derived from respective Published financial Reports

CD= Total credit dispensation during the financial years;

GNPA= Gross Non-Performing Assets

The figures in Table 1 reveal that:

[i] the total credit dispensation by both the groups of UCBs had move up; in case of Class ‘A’ it increased from 120 to 130 while in case of Class ‘B’ it went up from 110 to 121 during the same period; in this manner, the rate of credit dispensation had been higher in the UCBs of Class A as compared those of Class B;

[ii] The index number of the Gross-Nonperforming assets (GNPA) in case of UCBs of the Class ‘A’ increased from 124 in the year 2016-17 to 140 in the year 2020-2021; however, in the case of Class ‘B’ the upward trend in the size of GNPA rose little from 104 to 117;

[iii] The rate of growth in credit dispensation particularly in case of UCBs in Class ‘A’ had been comparatively lower than the rate of increase in GNPA during the period under review; consideration; and

[iv] Insofar as the UCBs of class ‘B’ are concerned, the rate of expansion in credit dispensation and the rate of growth in GNPA were almost similar, which implies better control over the credit risk.

During the quinquennium under review, the rate of expansion in GNPA never came down even marginally; in other words, credit risk continued to harry the management of these banks.

[b] Trends in GNPA and NNPA

The trends in the average percentages both the GNPA and NNPA demonstrating status of delinquency of borrowers for the UCBs of the classes are presented in the following table 2, for the period under consideration.

Table 2: Trends in the Mean percentages of GNPA and NNPA

Year	CLASS A	CLASS B
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	GNPA	NNPA	GNPA	NNPA
2016-17	20.35	18.16	24.86	22.42
2017-18	24.31	21.15	28.41	26.21
2018-19	28.54	24.20	30.44	28.12
2019-20	30.15	26.59	32.15	25.16
2020-21	32.60	29.41	28.20	25.33

Sources: Worked out on the basis of figures published in their respective annual reports.

Table reveals that

[1] The GNPA in respect of the UCB of class A was hardly 20.35 per cent in the year 2016 -17, which swelled by 32.60 per cent with the period of five years, i.e. around 2.4 per cent every year; however, in respect of the B class UCBs it registered the increase from 24.86 per cent only up to 28.20 per cent i.e. hardly four per cent during the period of five years;

[2] So far as the NNPA of the UCBs of Class A was concerned, it moved up from 18.16 per cent to 29.41 per cent whereas the percentage of NNPA in respect of the UCBs of Class 'B' went up from 22.42 to 25.33 i.e. hardly three per cent during the same period.

[3] The average gap between the GNPA and NNPA, as may be observed, remained within a span of (3to 4) per cent which is certainly laudable.

What is evident that both GNPA and NNPA in case of the concerned UCBs could /did not swell far beyond the uncontrollable limits and compatibly the gap between GNPA and NNPA also continued to remain appreciably limited.

[c] Return on Assets

The inevitability of direct adverse impact of GNPA on the annual returns of UCBs cannot be prevented by any operational strategies or accounting mechanism. Table 3 clearly tells that:

Table 3: The Mean percentage of returns on assets

Year	Class A	Class B
2016-17	0.66	0.58
2017-18	0.68	0.53
2018-19	0.71	0.60
2019-20	0.74	0.63
2020-21	0.70	0.59

Sources: From the audited annual reports of the concerned UCBs

These UCBs could not achieve even one per cent rate of returns on their assets and its average was 69.8 per cent for Class A, while 58.3 per cent for the class 'B' during the quinquennium under review. The poor rate of return on assets substantially adversative to (i) strengthening the capital structure of these banks and (ii) enhancement of profitability. Although in case of the UCBs under study the ranges of GNPA and NNPA appeared to be limited, their effect on return on assets and finally on capital structure is worth examining.

Shri M. S. Mohapatra (4) the erstwhile Professor at the Dhananjay Rao Gadgil Institute of Co-operation, commented in these words, " The capital structure of co-operative bank needs to

be strengthened predominantly from the internal sources by effectively managing the working funds because the external sources are costly and conditional”. This observations call upon the management of the UCBs to improve their capability to recover the loans and advances in order to prevent any diminution inn capital and profits..

### Tool of sensitivity of Capital to Credit Risk

Credit risks are a paramount factor that directly results in the shrinkage of basic capital as well as reduction in income tapering down the annual contribution in to the capital structure. In order to control the credit risks the dynamics of credit risks on capital of the bank, the Basel III norms were accepted by the RBI and it accordingly issued the detailed guidelines for the co-operative banks. The relationship between three fundamental variables is explained as under:

Capital = (CRAR) x (Credit Risk RWA);

Where,.

CRAR= capital to risk adjusted assets ratio,

Credit Risk at risk weighted assets (Net- Non- performing assets NNPA))

Therefore,

Sensitivity = (Change in Capital) / (Change in NNPA)

=  $[C_{t+1} - C_t / C_t] / [NNPA_{t+1} - NNPA_t / NNPA_t]$  where (t or t+1) indicate the time lag.

These figures are readily available in the annual reports of the concerned UCBs and the annual sensitivity figures are shown in the following Table 4.

Table 4: Sensitivity of CRAR with respect to NPAs

Year	UCB		UCB-	
	CLASS A	CLASSB	CLASS A	CLASS b
	CRAR	CRAR	SCRNPA	SCRNPA
2016-17	10.45	9.32	0.3135	0.2894
2017-18	11.92	10.33	0.3216	0.2876
2018-19	12.72	10.86	0.3421	0.2948
2019-20	14.12	11.51	0.4103	0.3113
2020-21	16.14	12.32	0.4219	0.3146
Mean	13.07	10.86	0.3469	0.2994
St. Dev.	1.94	1.02	0.0381	0.0112

Sources: Annual reports of the selected concerned UCBs

Observations

[1] During the quinquennium the capital to risk adjusted ratio moved upward from 10.45 per cent to 16.14n per cent in case of the UCBs of class ‘A’, whereas the same ratio in respect of the UCBs of the class B moved from 9.32 per cent to 12.32 per cent only; its Five-year mean was around 13.07 with the standard deviation around 1.94 for the class ‘A’ while in case of the class ‘B;’ UCBs the mean was 10.86 per cent with the standard deviation as low as of 1.02 per cent; what was an astonishing fact was that the CRAR did not drop even marginally during

the quinquennium in respect of both the classes of UCBs.

[2] The sensitivity of the CRAR with respect to the Net non-performing assets (SCRNPA) was around 0.3135 in the year 2016-17 in the case of the UCBs of the class 'A' and thereafter the sensitivity moved up slowly and steadily touching the level of 0.4219 by the end of 2020-21; its mean was about 0.3469 and standard deviation around 0.0381; on the contrary, in the case of the UCBs of the class 'B' had the SCRNP 0.2994 in the initial year which touched 0.3146 at the final year of the quinquennium with the mean 0.2994 and the standard deviation of 0.0112. ;

### Conclusions

The sensitivity of capital with respect to the net non performing assets (SCRNPA) for the period of five years in case of both the classes of UCBs as presented in the Table 4 leads to conclude that

- The five year mean of SCRNP for class A UCBS was 0.3469 and for class B it was 0.2994 meaning thereby that one per cent increase in the NNPA would affect the capital to an extent of roughly 0.35 per cent and 0.29 per cent respectively; and
- The standard deviations were around 0.03 and 0.01 for Class A and Class B evinced that sensitivity of capital to NNPA had never been volatile.

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### Selected References:

1. P.M. Vasnani: Promotional Environment for Development of Co-operative Banks In India- Journal of Co-operative Movement – November, 2018,p. 39
2. R.N. Kisore: Operational Hurdles in growth of co-operative banking, - Economic Times of India, March 28, 2017,p. 8-9.
3. Malathi S Somasundaram: Financial Impediments in Dispensation of Credit by co=Operative Banks, Journal of Indian Banking, Vol XXXNo 5, May 2015, p.34
4. M.S. Mohapatra: Dynamics of various risks in Lending- Indian Banking today-Tomorrow, New Delhi, January 2012, p. 25;