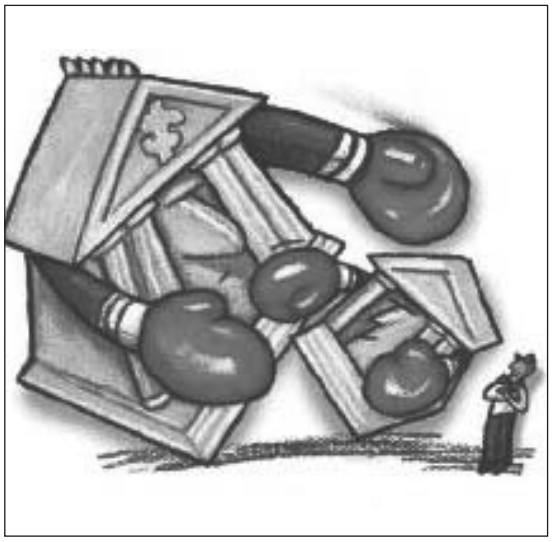

Credit as well as credit risk management in banks

RS Raghavan

Bank optimizes utilization of deposits by deploying funds for developmental activities and productive purposes through credit creation process. Deposit mobilization & Credit deployment constitute the core of banking activities and substantial portion of expenditure and income are associated with them. In the case of deposits, baring few stray instances of operational risks linked to the system and human failure culminating in fraud, forgeries & loss, there may not be anything very alarming. But credit portfolio is the real dynamic activity that requires close monitoring and continuous management. This article attempts to focus on not only credit management but also credit risk management.

Even though Tandon Committee norms have been dumped to dustbins, alternative methods being practiced by the banks are yet to pass the test of time. While some banks adopt the method of justifying the sanction of loan, others follow a combination of Turnover Method, Cash Flow Method, Cash Budget Method, Projected Balance Sheet method, etc.

Till recently, all the activities of banks were regulated and hence operational issues were not conducive to risk taking. The financial sector, now, wears a relaxed and liberated look. Banks have grown from being a financial intermediary, in the past, to a risk intermediary, at present. In credit, risks are co-related and exposure to one risk may lead to another having deeper ramification and hence, the real mantra for prudent banking lies in successfully managing the risks in an integrated and pro-active manner to optimize the exposure already taken or to be assumed by the bank. Adherence to standards of quick decision and providing adequate and need based financial assistance on attractive but safe terms, without losing the sight of the associated risks involved therein, appears to be a difficult proposition. There is an implicit understanding on the part of the planners that in the post nationalization era, banks will meet what is called social obligations through directed lending. Early stage of nationalization belonged to security oriented approach; in the nineties it was the spread-oriented era and in the early 21st century the focus is shifted to risk. When the security oriented approach was followed, economic activities and banking products were simple and "instances of frauds and forgeries were few and far in between.

It is very much essential to conduct credit investigation before taking up a proposal for consideration. This preliminary study should lead to valuable information on

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borrower's integrity, honesty, reliability, credit worthiness, management competency, expertise, associate concern, guarantor, etc. A due diligence report shall invariably accompany the credit proposal evaluation. Banks have to strictly adhere to the KYC (Know Your Customer) norms to ensure bonafide identification of borrows and should also follow the prescribed Fair Practice Code on Lenders Liability, by evolving their own best practices to be followed by the field functionaries, so as to avoid complaints from customer at a later date.

Lending methods

Even though Tandon Committee norms have been dumped to dustbins, alternative methods being practiced by the banks are yet to pass the test of time. While some banks adopt the method of justifying the sanction of loan, others follow a combination of Turnover method, Cash Flow Method, Cash Budget Method, Projected Balance Sheet method, Net Owned Fund Method & the popular one-size fits all

At present, due to lack of credit appraisal skill at the field level, manned by many generalist officials spread across the branch network, there is greater duplication of work at the sanctioning level at HO causing enormous and avoidable delay as papers pass through more than a dozen senior officials before they are placed before sanctioning authority.

Second Method of lending. Proper logistics should be built into the method of assessment -be it fund based or non-fund based requirement. What may be lacking is assessment of credit with risk perception.

Banks have to structure the assessed limits in the form of various credit facilities, having regard to the nature of activity, process/business cycle, trade terms, availability of security, operational convenience, etc. Loan System of Credit Delivery is one such system, developed a few years ago. This discipline in cash flow management, on mutual understanding between the bank and the borrower, should be observed in respect of credit exposures beyond a cut-off level of say Rs 10 cr or so. In view of the growing competition in the banking, take over of borrowal account is considered to be one of the major routes to accelerate credit expansion. It is just a shift of the lender, though there is no additional credit or asset creation activity. However, bankers should exercise due diligence and caution while entertaining a proposal for take over of an account from another lender.

When cash flow method is followed, repayment capacity of the borrower is well established and the return to the bank by way of interest is examined. But the question is how to rely on the projected cash flows. This can be overcome by building up industry wise data and the financials of the borrower. Information such as credit exposure in terms of sector, industry, security and region wise to all the credit appraisers in the institution should be uniformly made available with reasonable up-date so as to enable them to price, dispense, manage and monitor.

It is observed that extent of credit dispensation power is not related to the credit skill acquired by the authority , but linked to the position in the hierarchical ladder and, delegation has been based on the credit size and not the credit risk perceived in a proposal. For this, discretionary powers should be linked to the risk rating of the borrower. Banks are yet to fully move from credit rating to the risk rating of a borrower. When a borrower secures 95% marks and rated AAA, what is implied is credit rating is 95 (AAA) & the risk rating is 5. The mindset should change from credit rating to risk rating and proper system should be put in place in this regard. Proposals of non fund based limits should also be subjected to the same level of appraisal standards as adopted for appraising fund based limit so that the asset quality of the bank do not suffer any undue set back. Multiple analytical ratios are to be worked out in the credit appraisal duly discussing about the implications of these ratios. Detailed discussion on cash generation should compulsorily form part of credit appraisal.

Based on the risk rating, the

type of security to be obtained and cash margin to be insisted can be decided. Care should be taken that non-fund based limit in exclusion of fund based limit is not considered by a bank and proportionate fund and non-fund based limits are only considered. Banks should put in place their own Security Standards, Guarantee Standards, Documentation standards & Renewal/review standards to suit their appetite and quality standards.

In big-ticket credit, analytical tools will have to be used in various aspects of credit dispensation such as appraisal, delivery, monitoring, reporting, re-scheduling, restructuring, etc. As lenders feel that most of exposure ceiling / setting up limits, etc are regulator driven, it is better to be pro- active in these areas. Banks themselves should compile separate list of sectors to guide the field functionaries in the matter of credit deployment and some of these are given below:

- Indicative sectors where additional / fresh exposures can be considered without any prior reference to higher authorities.
- List of activities where selective approach is to be adopted and fresh / additional exposures can be considered only with the prior approval of appropriate authorities.
- Sectors / business segments where additional/ fresh exposure is prohibited for the time being.

Credit Monitoring

Credit Monitoring is an important function of credit management and some of these aspects are discussed in brief: Credit decisions do not get better, all because more people review the proposal. It can be improved only when those who review it are knowledgeable and carry with them requisite experience in credit portfolio. Credit Department should be expertise-oriented rather than going by the scale and grade in the organization, as there are many who climbed the organization ladder without being exposed to the requisite credit management. This anomaly should be properly understood by one and all. Typically, in PSU banks, branch head has a three-year tenure in a particular branch. They are geared for asset based lending, disregard of lending based on the forecast of cash flows. Even in Asset Based Lending, appraiser is bogged down in the paper financial ratios rather than cash flows which are vital in certain type of industries like, hospitality, construction, transport, hotel, etc where there are significant fluctuations in the cash flows. It requires totally different mindset. Though some banks, in line with the express RBI guidelines on credit risk management, follow the committee approach for credit sanction, in reality the committee hardly meets to share the broader range of skills, expertise & knowledge. Getting passed the proposal through circulation is more often the rule than an exception & one person's decision gets the sanctity of committee. The committee approach is helping the bank in diffusing individual responsibility from the angle of CVC.

A separate model for Non-SLR securities should be evolved, covering the features of instrument, company's financials, etc. so as to capture the credit risk in securities. Depending on the requirement, banks may think of evolving separate model for agricultural sector, export/import business etc.

At present, due to lack of credit appraisal skill at the field level, manned by many generalist officials spread across the branch network, there is greater duplication of work at the sanctioning level at HO causing enormous and avoidable delay as the papers pass through more than a dozen senior officials, before it is placed before the sanctioning authority. Business Process Re-engineering and Core Banking Project may come to the rescue of banks.

Exposure to sensitive sectors such as Real Estate, Capital Market & Commodities sector need to be kept under constant watch and adequately disclosed in the balance sheet of banks; Monitoring of unsecured exposures, both fund based and non-fund based, through internal ceilings prescribed by the Bank; Rating wise exposure ceilings i.e. achieving not more than 30 % of gross exposures in anyone grade; Stipulation of exposure levels under some of the following headings.

a) Sub-PLR lending.
b) Fixed Interest rate
c) Geographical region wise ceiling.
d) Maturity wise exposures

e) Precious Metals like gold, diamond
f) Retail Lending.
g) Small & Medium Enterprise
h) Large Borrowers beyond cut-off level.

Credit Risk

As observed by RBI, Credit Risk is the major component of risk management system and this should receive special attention of the Top Management of a bank. Credit risk is the important dimension of various risks inherent in a credit proposal, as it involves default of the principal itself. Credit risk may arise due to internal -meaning faulty appraisal, inadequate monitoring, unwillingness on the part of borrower to honour commitments despite being capable or external factors such as government policies, industry related changes.

Credit Risk is the potential that a bank borrower/counter party fails to meet the obligations on agreed terms. There is always a scope for the borrower to default from commitments for one or the other reason resulting in crystalisation of credit risk to the bank. These losses could take the form of outright default or alternatively, losses from changes in portfolio value arising from actual or perceived deterioration in credit quality that is short of default. Credit risk is inherent to the business of lending funds to the operations linked closely to market risk variables. The objective of credit risk management is to minimize the risk and maximize bank's risk adjusted return by assuming and maintaining credit exposure within the acceptable parameters. Measurement of credit risk is crucial if the banks have to appropriately price their loan products, set suitable limits on

amount of credit to be extended as well as the loss exposure it accepts from any particular counter party.

Credit risk consists of primarily two components, viz. Quantity of risk, which is nothing but the outstanding loan balance as on the date of default and the Quality of risk, which is the severity of loss defined by Probability of Default as reduced by the recoveries that could be made in the event of default.

Thus credit risk, is a combined outcome of Default Risk and Exposure Risk. The elements of Credit Risk is Portfolio risk comprising Concentration Risk as well as Intrinsic Risk and Transaction Risk comprising migration/down gradation risk as well as Default Risk. At the transaction level, credit ratings are useful measures of evaluating credit risk that is prevalent across the entire organization where treasury and credit functions are handled. Portfolio analysis help in identifying concentration of credit risk, default/migration statistics, recovery data, etc.

In general, Default is not an abrupt process to happen suddenly and past experience indicates that, more often than not, borrower's credit worthiness and asset quality declines gradually, which is otherwise known as migration. Default is an extreme event of credit migration. Managing default risk through efficient risk management system helps bank in building healthy credit portfolio besides maximizing returns. Risk Management System would help in providing unity of direction in accomplishment of the corporate goals.

Off-balance sheet exposures such as foreign exchange forward contracts, swaps, options etc are classified into three broad categories such as Full Risk, Medium Risk and Low Risk and then translated into risk weighted assets through a conversion factor and summed up.

Thus the management of credit risk includes: (a) measurement through credit rating/scoring, (b) quantification through estimate of expected loan losses, (c) Pricing on a scientific basis and (d) Controlling through effective Loan Review Mechanism and Portfolio Management.

Tolls of credit risk management

The instruments and tools, through which credit risk management is carried out, are detailed below:

a. Exposure Ceilings:

Prudential Limit is linked to Capital Funds -say 20% for individual borrower entity, 45% for a group with additional 5%/10% for infrastructure projects, subject to approval of the Board of Directors, Threshold limit is fixed at a level lower than Prudential Exposure; Substantial Exposure, which is the sum total of the exposures beyond threshold limit should not exceed 600% to 800 % of the Capital Funds of the bank (i.e. 6 to 8 times).

b. Review/Renewal:

Multi-tier Credit Approving Authority, constitution wise delegation of powers, sancti6ning authority's higher delegation of powers for better-rated customers; discriminatory time schedule for review / renewal, Hurdle rates and

Bench marks for fresh exposures and periodicity for renewal based on risk rating, etc

c. Risk Rating Model:

Set up comprehensive risk scoring system on a six to nine point scale. Clearly define rating thresholds and review the ratings periodically preferably at half yearly intervals, to be graduated to quarterly so as to capture risk without delay. Rating migration is to be mapped to estimate the expected loss.

d. Risk based scientific pricing:

Link loan pricing to expected loss. High-risk category borrowers are to be priced high. Build historical data on default losses. Allocate capital to absorb the unexpected loss. Adopt the RAROC framework.

e. Portfolio Management

The need for credit portfolio management emanates from the necessity to optimize the benefits associated with diversification and to reduce the potential adverse impact of concentration' of exposures to a particular borrower, sector or industry. Portfolio management shall cover bank-wide exposures on account of lending, investment, other financial services activities spread over a wide spectrum of region, industry, size of operation, technology adoption, etc. There should be a quantitative ceiling on aggregate exposure on specific rating categories, distribution of borrowers in various industries & business group. Rapid portfolio reviews are to be carried on with proper & regular on-going system for identification of credit weaknesses well in advance. Steps are to be initiated to preserve the desired portfolio quality and portfolio reviews should be integrated with credit decision-making process.

f. Credit Audit/Loan Review Mechanism

This should be done independent of credit operations, covering review of sanction process, compliance status, review of risk rating, pick up of warning signals and recommendation for corrective action with the objective of improving credit quality. It should target all loans above certain cut-off limit ensuring that at least 30% to 40% of the portfolio is subjected to LRM in a year so as to ensure that all major credit risks embedded in the balance sheet have been tracked and to bring about qualitative improvement in credit administration as well as Identify loans with credit weakness. Determine adequacy of loan loss provisions. Ensure adherence to lending policies and procedures. The focus of the credit audit needs to be broadened from account level to overall portfolio level. Regular, proper & prompt reporting to Top Management should be ensured. Credit Audit is conducted on site, i.e. at the branch that has appraised the advance and where the main operative limits are made available.

Risk Rating Models

The need for the adoption of the credit risk-rating model is on account of the following aspects.

- Disciplined way of looking at Credit Risk.
- Reasonable estimation of the overall health status of an account captured under Portfolio approach as contrasted to stand-alone or asset based credit management.
- Impact of a new loan asset on the portfolio can be assessed. Taking la fresh exposure to the sector in which there already exists sizable exposure may simply increase the portfolio risk although specific unit level risk is negligible/minimal.
- The Co-relation or co-variance between different sectors of portfolio measures the inter relationship between assets.
- Concentration risks are measured in terms of additional portfolio risk arising on account of increased exposure to a borrower / group or co-related borrowers.
- Need for Relationship Manager to capture, monitor and control the over all exposure to high value customers on real time basis to focus attention on vital few so that trivial many do not take much of valuable time and efforts.
- Instead of passive approach of originating the loan and holding it till maturity, active approach of credit portfolio management is adopted through securitisa-

Under the New Basel II Accord, assessment of Credit Risk can be carried out in any of the three approaches viz. Standardised Approach, Foundation Internal Rating Based Approach and Advanced Internal Rating Based Approach. At present, banks in India in general and PSU banks in particular, are ready to migrate to Basel II only at a conceptual and academic level.

tion/credit derivatives.

- Pricing of credit risk on a scientific basis linking the loan price to the risk involved therein, though the factor of business compulsion and competition is always there.
- Rating can be used for the anticipatory provisioning, certain level of reasonable over-provisioning as best practice.

Given the past experience and assumptions about the future, the credit risk model seeks to determine the present value of a given loan or fixed income security. It also seeks to determine the quantifiable risk that the promised cash flows will not be forthcoming. Thus, credit risk models are intended to aid banks in quantifying, aggregating and managing risk across geographical and product lines. Credit models are used to flag potential problems in the portfolio to facilitate early corrective action.

Country risk & inter-bank exposure

During the course of their business operations, banks invariably assume inter-bank exposures of varying degree arising from customers trade transactions, placement of money as bank's liquidity management, hedging, trading in securities, transactional banking services such as clearing, custodial & depository services, etc. As these transactions involve credit risk proper evaluation of credit risk is essential wherever an exposure on other banks is assumed in any form.

In this regard, the bank shall put in place proper credit rating models to evaluate the credit risk and rate the counter party so as to fix suitable exposure limits and mechanism for the off-balance sheet exposure, maximum tenor of exposure, etc in inter-bank transactions. The rating model shall take into account both financial (capital adequacy, asset quality, profitability, liquidity) and non-financial (country, ownership, management, market perception) parameters. Depending on the past exposure and dealings, in respect of various rating categories of the counter party banks, the maximum exposure ceiling may be suitably fixed in relation to the Capital Funds position of the bank so as to assume and absorb the credit risk.

When a bank undertakes cross border lending and investment activities and finance is extended to its constituents under foreign trade transactions, it encounters country risk, comprising of Settlement risk, Transfer risk, Sovereign Risk, Non-Sovereign Risks, Cross Border Risk, Currency Risk, etc. Country risk management involves aggregation of country exposures and monitoring thereof against predefined limits on the basis of rating framework. Till such time banks evolve their own internal rating mechanism, the country risk classification adopted by ECGC Ltd -the seven categories classification of countries ranging from Insignificant risk to Off-credit rating, may have to be adopted. Currency risk is the possibility that exchange rate changes will alter the expected amount of principal and return of lending or investment. At times, banks may try to cope with this specific risk on the lending side by shifting the risk associated with exchange rate fluctuations to the borrowers.

Basel II requirements

Basel II, released by Basel Committee on Banking Supervision in June 2004, has proposed the adoption of a better risk sensitive and balanced portfolio framework for the calculation of capital to risk weight on credit exposure. It is intended to bring the regulatory capital requirement more in line with the economic capital allocation approach.

The expected loss / unexpected loss methodology forces banks to adopt new Internal Ratings Based approach to credit risk management as proposed in the Capital Accord II. Under the IRB approach (both Foundation and Advanced) banks will be allowed to use their own internal estimates to determine the borrower's credit worthiness to assess the credit risk.

In to-days parlance, default arises when a scheduled payment obligation is not met within 90 days from the due date. Exposure risk is the loss of amount outstanding at the time of default as reduced by the recoverable amount. The loss in case of default is D * X* (l-R) where D is Default percentage, X is the Exposure Value and R is the recovery rate. The extent of provisioning required could be estimated from the Expected Loss Given Default (which is the product of Probability of Default, Loss Given Default & Exposure at Default). That is ELGD is equal to PD X LGD X EaD. After knowing the PD, it is necessary to calculate the proportion of loan loss on default. A historical data of 5 to 10 years may be considered enough for estimating the proportion of loan loss on default and the average may be tabulated in respect of all the rating grades, as under:

Rating of a/c	AAA	AA	A	BBB	BB	B	C	D
P D								
LGD								

Under the New Basel II Accord, assessment of Credit Risk can be carried out in any of the three approaches viz. Standardised Approach, Foundation Internal Rating Based Approach and Advanced Internal Rating Based Approach. At present, banks in India in general and PSU banks in particular, are ready to migrate to Basel II only at a conceptual and academic level and they have to travel a long distance when it comes to organizational and technological readiness to go ahead with it to adopt the international practice.

In Standardised Approach, bank allocates risk weight to each of the assets and off-balance sheet items and produces a sum of Risk Weighted Asset Values (RW of 100% may entail capital charge of 8 % and RW of 20% may entail capital charge of 1.6%). The risk weights are to be refined by reference to a rating provided by an approved External Credit Assessment Institution that meets certain strict standards. Under the Foundation Internal Rating Based Approach, Bank rates the borrower and results are translated into estimates of a potential future loss amount that forms the basis of minimum capital requirement. Under Advanced Internal Rating Based approach, the range of risk weights will be well diverse.

Conclusion

Growth in the economy during the last decade or so has been facilitated the Non-Banking Financial Sectors and hence there is an urgent need to focus on the need to integrate the financial market by leveraging on the strengths of NBFS. Banks are risk averse to lending, owing to lack of proper credit information mechanism, high transaction cost, weak enforcement of collateral, bankruptcy framework, high NPA, directed credit issues, staff accountability concept, etc. Laid back banking approach and related structural problems in the banks needs to be addressed. The explosive growth in the markets for securitised assets and for credit derivatives has offered bank new ways and means in managing as well as transferring credit risk.

In many banks in India, particularly in the PSU sector, it is believed that loans are akin to Indian marriages, where divorce is not feasible even when it is clear that the relationship is incompatible. Despite detailed technical analysis that supports a credit decision, it is the credit officer who decides on a proposal based on his own judgment. However, when it comes to rating of a borrower, the system and model in place should be such that who ever in the bank rates the borrower, the result should be same in at least 90% of the cases. Banks need both the information and system to rate the level of risk in a credit proposal. In order to achieve this, credit officers should work as a team and share learning with an institutional commitment to develop capabilities through ongoing and well-designed credit training. Bank should lend according to its appetite within the need-based assessment of the credit requirement of the borrower.

The ideal credit risk management system should throw a single number as to how much a bank stands to lose on credit portfolio and therefore how much capital they ought to hold. ■