CHAPTER -IV
EXISTING SYSTEMS/PROCEDURES FOR NPA IDENTIFICATION

This chapter deals with existing systems/procedures for NPA identification at Commercial banks. In this regard various risks namely Credit risk, Market risk, Liquidity risk, Interest rate risk, Foreign exchange risk, Country risk and Operational risk are explained and different approaches are also explained.

CREDIT RISK

For banks and financial institutions, management of credit risk is critical. Credit risk is defined as the possibility that a borrower or counter party will fail to meet its obligations in accordance with agreed terms. These losses in a bank’s portfolio stem from outright default due to inability or unwillingness of a customer or counter party to meet commitments in relation to lending, trading, settlement, and other financial transactions. Losses also result from reduction in portfolio value arising from actual or perceived deterioration in credit quality. Credit risk is a combined outcome of default risk and exposure risk, which also includes off-balance sheet exposures such as forex forward contracts, swaps, options, etc. Credit risk, therefore, arises from the banks’ dealings with or lending to a corporate, individual, another bank, financial institution or a country. The effective management of credit risk is a critical component of comprehensive risk management and is essential for the long-term success of any banking organization. Credit risk management encompasses identification, measurement, monitoring and control of the credit risk exposures.

The Credit Risk Management (CRM) focuses on the aspects relating to:

- Default, and
- Credit quality

Default is a situation in which bank does not receive the amount due from the obligator as per the contract. This has two aspects-

- Solvency (which relates to non-payment), and
- Liquidity (which relates to delay in payment).

Credit quality relates to changes in the asset value. The value of credit asset may decline due to increase in likelihood (or even perceived likelihood) of default. In order to manage and control the risk within the set limits (risk appetite of the bank), the risk will have to be measured and quantified. It is said that if you cannot measure the risk properly you cannot manage and control it. Measurement of risk is thus a critical stage in credit risk management. The RBI has advised the banks to put in place appropriate risk management architecture to comply with the new Basel accord. RBI guidelines on credit risk management stipulate that, it is imperative that banks have a robust credit risk management system, which is sensitive and responsive to all major risk factors. Credit risk rating framework is recognized as a key instrument for rating of bank’s borrowers in various sectors like industrial, trade, and agriculture, etc. In pursuance of these requirements, banks have designed a Credit Risk Rating (CRR) framework in the form of eight models to be utilized for risk rating of borrowers. These models, guidelines, and scoring norms are now being implemented in many banks. The applicability and coverage of the eight models are as under:

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Standardized Approach

It is based on the External Credit Assessment Institution (ECAI) rating for sovereign, banks and corporate and is more sensitive as compared to the existing standardized approach.

Internal Rating Based Approach (IRB)

Measurement of credit risk involves quantification of:

1) Expected Losses (EL);
2) Unexpected Losses (UL).

Expected loss is denoted by the formula

\[ EL = PD \times LGD \times EAD \]

Unexpected loss is denoted by the formula

\[ UL = EAD \times \sqrt{(PD \times \sigma^2_{LGD} + LGD^2 \times \sigma^2_{PD})} \]

Thus, for the measurement of credit risk, quantification of the following components is necessary:

- Probability of default (PD).
- Expected exposure at default (EAD).
- Loss given default (LGD).
- Maturity or tenor of the exposure.
- Degree of diversification in a banks credit portfolio.

The above equation shows that the unexpected loss arises due to the variance (\( \sigma^2 \)) of the LGD and PD. In case the \( \sigma^2 \) LGD, and \( \sigma^2 \) PD are zero, i.e. there is no variance in PD or in the LGD, the above expression becomes zero and the UL is zero. It is only on account of the variations in PD and LGD values ex-post from their values taken ex-ante the UL arises. As the EL indicates the average or mean loss expected, it is to be taken care of through provisioning i.e. by booking it as loss. The unexpected loss (UL) can be taken care by maintaining proper capital adequacy (Chaubal, R.P., June 2003).
Advanced IRB Approach

In Advanced IRB approach, the range of risk weights will be diverse.

MARKET RISK

Market Risk may be defined as the possibility of loss to a bank in the terms of earnings and capital, caused by the changes in the market variables. It is the risk that movements in equity and interest rate markets, currency exchange rates, and commodity prices will adversely affect the value of on/off balance sheet positions.

LIQUIDITY RISK

Liquidity is the ability to efficiently accommodate deposit and reduction in liabilities as also to fund the loan growth and possible funding of the off-balance sheet claims.

The cash flows are placed in different time brackets based on future behavior of assets, liabilities, and off-balance sheet items. Liquidity risk consists of funding risk, time risk, and call risk.

- Funding Risk: The need to replace net outflows due to unanticipated withdrawal/non-renewal of deposit.
- Time Risk: The need to compensate for non-receipt of expected inflows of funds, i.e. performing assets turning into non-performing assets.
- Call Risk: It happens on account of crystallization of contingent liabilities and inability to undertake profitable business opportunities, when desired.

INTEREST RATE RISK

Interest Rate Risk is the potential negative impact on the net interest income and it refers to the vulnerability of an institution’s financial condition to the movement in interest rates. Changes in interest rate affect earnings, value of assets, liability, off-balance sheet items, and cash flow. Management of interest rate risk aims at capturing the risks arising from the maturity and re-pricing mismatches and is measured both from the earnings and economic value perspective. Earnings perspective involves analyzing the impact of changes in interest rates on accrual or
reported earnings in the near term. This is calculated by measuring the changes in the net interest income equivalent to the difference between total interest income and total interest expense. Economic value perspective identifies risk arising from long-term interest rate gaps and involves analyzing the expected cash inflows on assets minus expected cash outflows on liabilities plus the net cash flows on off-balance sheet items.

**FOREIGN EXCHANGE RISK**

Foreign exchange risk arises when a bank may suffer loss as a result of adverse exchange rate movement during a period in which it has an open position, either spot or forward, or both in same foreign currencies. Even, in case, where spot or forward positions in individual currencies are balanced, the maturity pattern of forward transactions may produce mismatches. There is also a settlement risk arising out of default of the counter party and out of time lag in settlement of one currency in one center and the settlement of another currency in another time zone.

**COUNTRY RISK**

This is the risk that arises due to cross-border transactions that are growing dramatically in the recent years owing to globalization. In the process there arises, a situation in which seller (exporter) may deliver the goods, but may not be paid or the buyer (importer) might have paid the money but was not delivered the goods for one or the other reasons. As per the RBI guidelines, banks should reckon both fund and non-fund exposures from their domestic as well as foreign branches, if any, while identifying, measuring, monitoring and controlling country risk. It also advocates that bank should also take into account indirect country risk exposure. For example, exposures to a domestic commercial borrower with large economic dependence on a certain country may be considered as subject to indirect country risk. The exposures should be computed on a net basis, i.e. gross exposure minus collaterals, guarantees, etc. Banks are expected to disclose the “country risk management” policies in their annual report by way of notes.

**OPERATIONAL RISK**

Operational risk is the risk of loss arising from various types of technical or human errors or failed internal process, legal hurdles, fraud, and failure of people and
systems or from external agencies. It can result into low productivity and have greater impact on performance as compared to market and credit risk. There is no fixed formula for probability of occurrence of operational risk and as such these are classified in the category of non-measurable risk. Most banks, internationally, admit in having poor measures of operational risk. Banks measure credit and market risk because they can, not because these are the biggest risk they face.

Operational risk is larger, more dangerous and no one knows exactly what to do about it. Risk education for familiarizing the complex operations at all levels of staff can also reduce operational risk. Insurance cover is one of the important mitigators of operational risk. Operational risk events are associated with weak links in internal control systems or laxity in complying with the existing internal control procedures. Operational risk involves breakdown in internal controls and corporate governance leading to error, fraud, and failure to perform in a timely manner, compromise on the interest of the bank resulting in financial loss. In order to mitigate this, internal control and internal audit are used as the primary means. Putting in place proper corporate governance practices by itself would serve as an effective risk management tool. The new Basel accord outlines three approaches in the assessment of the requirements for operational risk. (Raghavan, R.S., November 2002).

**Basic Indicator Approach (BIA)**

BIA allocates capital for operational risk using a single indicator, i.e. gross income as a proxy for an overall operational risk exposure. Each bank holding capital for operational risk equal to the amount of a fixed percentage, multiplied by the individual amount of gross income.

**Standardised Approach (SA)**

This approach differs from the BIA in that a bank’s activities are decomposed into eight standardized business lines (corporate finance, trading and sales, retail banking, commercial banking, payment and settlement, agency services, asset management, and retail brokerage). Thus the SA is better able to reflect the different risk profiles across the banks as reflected by their broad business activities. However, like the BIA, the capital charge would continue to be standardized by the supervisor.
Internal Management Approach (IMA)

Under IMA, bank’s activities are categorized into a number of business lines, and a broad set of operational loss types is defined and applied across business lines. In the regulated banking environment, banks had to primarily deal with credit or default risk but the current scenario demands the dealing with the whole range of risk like exchange risk, interest rate risk, operational risk, etc. Operational risk, which had always existed in the system, would become more pronounced in the coming future, as the technology has become the new factor in today’s banking. Traditional risk management techniques become obsolete with the growth of derivatives and off-balance sheet operations, coupled with diversifications. The expansion of e-banking will lead to continuous vigilance and revision of regulations. The RBI, presently, has supervisory mechanism by way of no-site inspection and off-site monitoring based on the audited balance sheet of a bank. In order to enhance the supervisory mechanism, the RBI has decided to put in place, beginning from the last quarter of the financial year 2002-03, a system of risk-based supervision (RBS). The RBS is expected to focus supervisory attention in accordance with the risk profile of the bank. It is designed to ensure continuous monitoring and evaluation of risk profile of the institution through risk matrix. This may optimize the utilization of the supervisory resources of the RBI so as to minimize the impact of a crises situation in the financial system.

The implementation of risk-based auditing would imply that greater emphasis is placed on the internal auditor’s role for mitigating risks. By focusing on effective risk management, the internal auditor would not only offer remedial measures for current trouble-prone areas, but also anticipate problems and play an active as well as important role in protecting the bank from risk hazards. If the above procedure of integrated risk management is put in place in the banks, past due loans (NPAs) can be managed to a large extent.

Ultimately the management of NPAs boils down to-

- Credit monitoring, as a tool to arrest the slippage of assets into the non-performance zone.
- Credit monitoring as a tool for drafting and implementing rehabilitation programme for converting NPAs into performing assets.
➤ Skillful negotiation for evolving a compromised payment-settlement to annihilate NPAs.
➤ Timely filing of civil suits and effectively managing the litigation to build up pressure on the defaulting borrowers for repayment.

CREDIT MONITORING

Once a decision to extend financial assistance to a company is taken, an enduring relationship with borrower gets established. This relationship, to be healthy, demands a systematic sequencing of monitoring activities that can optimize the benefit of borrowers’ investment of funds on production cycle, within the given constraints and opportunities by ensuring the pursuit of the policies enunciated under various covenants. For a better understanding of its significance in arresting NPAs, credit monitoring can be summarized as:

➤ A logical step after the sanctioning of limit.
➤ A systematic sequencing of activities-execution of documents, creation of securities, registration of charges, obtention of operational data, fixation of drawing limits, etc.
➤ A tool to optimize the benefits of production – it is a dynamic concept as the production cycle rolls over, new opportunities / constraints /challenges are likely to emerge vis-a-vis assumptions made at the time of sanctioning; changed circumstance demand commensurate change in the lender’s perception, may be in the sanctioning terms itself.
➤ A means to take cognizance of the emerging issues and redefine the relationship in tandem with them, though it is ab initio defined in various covenants before the loan is released.

Credit Monitoring: Goals

➤ To ensure that the assisted company undertakes production satisfactorily as per projected schedules and generates anticipated returns.
➤ To identify critical areas in the functioning of the borrower unit and diagnose symptoms of incipient weakness, if any.
➤ To help viable/economic operation of the unit, so that the loan is repaid within the stipulated time period.
➢ To nurture the units promoted by first generation entrepreneurs during the critical period of adjustment and survival.

➢ To nurse and rehabilitate ailing units with a reasonable chance of revival through financial and management support.

➢ Incidentally, the experience gained in monitoring units can be made use for upgrading subsequent quality of appraisal.

**Credit Monitoring: Tools**

1. Scrutiny of operations,
2. Stock statements,
3. Stock inspection,
4. Stock audit by chartered accountants,
5. Quarterly/half-yearly statements under various information systems, and
6. Annual review.

**Scrutiny of Operations**

Operations, as reflected, in various accounts maintained with the bank throws open many significant pointers like:

➢ Unusual debits-diversion?

➢ Unusual credits-undisclosed sources/outside borrowings?

➢ Frequent bouncing of cheques-poor cash flows?

➢ Delayed retirement of bills-liquidity crisis?


➢ Are the frequent returns of sales bills due to: poor quality of products? Drop in the market share? Slackness in market? Accommodation?

➢ Is the poor turnover in the account due to: routing the sales through some other bank? Cash sales? Drop in production?
Does the poor utilization of limit mean: projections are not being realized? Creditors have gone up? Book debts have come down? Estimation of working capital requirement is wrong?

**Stock Statements**

Banks, having fixed the WC limits based on projected sales/build-up of current assets and liabilities, have to regulate drawings based on actual holding of current assets on a monthly basis.

- Does the irregular submission of statements mean: poor holding? Disorganized inventory management? Huge unpaid stocks? Sheer non-cooperative / lackadaisical attitude?
- Would low credit purchases mean: Poor market image? Single supplier? Non-competitive prices? Excess liquidity?

**Stock Inspection**

Based on monthly stock statements submitted by the borrower, site inspections are carried out to verify the inventory and ensure that everything is in order.

- Does insufficient stock holding mean: Diversion of funds? Acquisition of fixed assets, pending release of funds by term-lending institutions? Advance payments made? Plant shut down? Cyclical/seasonal demand? Funds blocked in receivables? Corrective course of action is warranted immediately?
- Huge inventory/inventory exceeding permissible levels should lead to questions like: How is it financed? Share of unpaid stocks? Lead-time is more? Import content is high? Seasonal availability? Speculative hoarding? Old/non-moving inventory? High share of finished goods due to poor off-take? Make of non-moving finished goods? Sudden spurt in market demand? Plans to bring down to normal levels?
➢ Does huge outstanding under receivables mean: Low cash sales? Poor market demand? High competition? Sales growth through credit alone? Poor realization mechanism? Bills outstanding considerably long? Excess liquidity?


**Stock Audit by Chartered Accountants**

Inspection of accounts with sizeable limits could be entrusted to empaneled chartered accountants once in a year. Such inspection is preferably to be carried out by the chartered accountants themselves rather than their audit clerks/trainees and a detailed report submitted. Report needs to be scrutinized by the monitoring authorities and any adverse remarks are to be immediately attended to. The cost of such stock audit is to be borne by the company.

**Quarterly/Half-Yearly Statements Under Various Information Systems**

Banks, by and large, are still continuing with the practice of obtaining information pertaining to production plans, required current assets for executing the plans for the current as well as ensuing quarter, production performance during the previous quarter, etc., as prescribed under the concept of CMA by RBI for borrowers enjoying working capital facilities of Rs.1 crore and above. Such information helps in- 

➢ Determining credit requirement for executing the projected production plans;
➢ Monitoring performance of the previous quarter vis-à-vis projections and ensure borrower’s compliance;
➢ Ensuring safety of lent funds by constant monitoring operations; and 
➢ Identifying early signal of incipient sickness, if any, and initiate corrective measures.
The utility of the forms depends on timely submission, reliability of the data, acceptability of the data, and interpretation of the data.

**Annual Review**

As per Chamber’s dictionary, “review” means: “to look at or examine again”; “to look back upon a period of time, sequence of events, etc.”; and “to read through or go over in order to correct or second consideration; re-examination”. However, reviewing of advance accounts encompasses many more things. This relook/reviewing has got its own objectives and accordingly, its own methodology with its own well laid-out path for logical conclusions/ultimate decision-making. Looking back upon the happenings in a borrowal account over a period of time, under the grab of “annual review” would, therefore, encompass:

- Deciphering the business happenings and its net result by the end of the scheduled time;
- Juxtaposing the actual against the assumptions/projections made at the time of the sanctioning of the loan proposal;
- Analysing the underlying reasons for deviations, if any, from the assumptions;
- Deciding their acceptability or otherwise; and
- Wherever needed, proposing mutually acceptable corrective measures for restoring the unit back to the desired level of performance / achievements.

**Credit Monitoring: Process**

This exercise involves a lot of decision-making which is quite complicated under the present context of the bank’s entertaining a huge number of loan accounts that too involving multifarious technologies/processes spread over a wide variety of industries. This complex situation demands from the appraiser:

- A thorough knowledge and understanding of the environment in which the assisted unit is functioning;
- Sharp skills to gather relevant facts, ability to process and evaluate the data by using appropriate tools; and
- Right attitudes and values.
The internal environment of the company can be read from the audited profit and loss account and balance sheet, CMA data and director’s report. The knowledge about the external environment, though difficult to source from readymade documents, can be gauged from the annual reports of the company’s operating in the same industry, press reports about macro-economic changes in the country and their influence on different industries, government policies declared from time to time and the experience of the lending institutions in the same industry.

The financial data as obtained from the annual statements of the borrower company needs to be analysed/ratios worked out to decipher the financial implications. These would be juxtaposed with the projections made at the time of sanction and preferably with the industry averages if available, to study:

- Whether the actual have turned out to be as planned for, i.e. the actual financial performance is in conformity with the projections made in the sanctioned proposal.
- If not, how adverse are the deviations?
- The underlying reasons for such distortions/shortages from the planned document.
- Grouping the underlying reasons identifiable heads like:
  - Fall in production due to: Shortage of raw materials, shortage of power/feedstock, industrial unrest, poor maintenance, and high cost of inputs.
  - Fall in sales due to: late entry in the market, stiff competition from new entrants, availability of cheap alternatives to the consumers, and inability to offer credit facilities.
  - Financial inadequacies due to: meeting the requirements to NWC, diversion of short-term funds for acquisition of fixed assets, blockage of funds in sister concerns, investments in too many activities, and delayed release of funds by term lending institution.

Here it is worth bearing in mind that the borrower being interested in his own cause/goal, is more prone to gloss over the weaknesses with camouflaged explanations. Therefore, the knowledge, attitudes and the values of the appraising officer plays a critical role in accepting/rejecting/modified/generating altogether
new explanations and accordingly, deciding upon the course of action. If the analysis indicates that the things are moving in the right direction, perhaps the review would be smoother, but if the going is found to be topsy-turvy, it demands:

- Identification of contributory factors for such distortions;
- Crystallizing them to specific areas like production, sales, inadequate supply of inputs, obsolete technology, introduction of substitutes by new entrants at a lesser price, availability of better alternatives to the consumer, government policies, industrial unrest, financial inadequacies of the borrower either to meet NWC or long-term requirements, diversion of short-term funds towards acquisition of fixed assets, etc.;
- Drafting a suitable plan of action to counter the threats posed by the market, capital inadequacies of the borrower, changed government policies;
- Acceptability of such plans both to the borrower and the bank in terms of their ability to generate adequate cash flows and thereby ensure safety of funds already lent/to be lent and returns thereon;
- Incorporating such plans in the review proposal with judicious explanations for getting formal approval from competent authority.

In addition, that shall, smoothly conclude the review exercise/pave way for the unit to remain as a going concern. However, the whole exercise may, at times, land the appraisee in an impasse wherefrom he finds it difficult to make any further improvements except to initiate the recovery proceedings. This shall prompt the authorities to initiate either a compromise dialogue or civil proceedings without further loss of time. The whole of the above discussion leads to the following group of early warning signals.

**EARLY WARNING SIGNALS (EWS)**

While undertaking the process of credit monitoring, banks come across signals that warn them about the possibility of the account slipping in the category of NPAs. These signals are nothing but non-adherence of various benchmarks financial or otherwise. The charts below identify a few such warning signals that can lead to early detection of a problem account.
Early Management Warning Signals

- Change in behaviour/personal habits of key people.
- Martial problems.
- Changes in attitude towards bank or banker, especially seeming lack of cooperation.
- Recurrence of problems presumed to have been solved.
- Failure to perform personal obligations.
- Change in management, ownership, or key personnel.
- Illness or death of key personnel.
- Inability to meet commitments on schedule.
- Neglect or discontinuance of profitable standard lines.
- Inability to plan.
- Poor financial reporting and controls.
- Fragmented functions.
- Venturing into acquisitions, new business, new geographic area, or new product line.
- Desire and insistence to take business gambles and undue risk.
- Unrealistic pricing of goods and services.
- Delay in reacting to declining markets or economic conditions.
- Lack of visible management succession.
- One-man operations showing growth patterns that strain owner’s capacity to manage and control.
- Change in business, economy or industry.
- Labour problem.

Early Financial Warning Signals

Balance Sheet

- Failure to get statements in timely fashion.
- Slow down in receivables collection period.
- Deterioration in customer’s cash position.
- Sharp increases in dollar amounts or percentages of accounts receivables.
- Slowdown in inventory turnover.
• Decline in current assets as percentage of total assets.
• Deterioration of liquidity working capital position.
• Marked changes in mix of trading assets.
• Rapidly changing concentrations in fixed assets.
• Large increase in reserves.
• Concentrations in non-current assets other than fixed assets.
• High concentration of assets in intangibles.
• Disproportionate increases in current debt.
• Substantial increases in long-term debt.
• Low equity relative to debt.
• Significant changes in balance sheet structure.
• Presence of debt due to / due from officer / stockholder.
• Qualified audit.
• Change of accounts.

Income Statement

• Declining sales.
• Rapidly expanding sales.
• Major gap between gross and net sales.
• Rising cost percentages / narrowing margins.
• Rising sales and falling profits.
• Rising levels of bad debt losses.
• Disproportionate increases in overhead, relative to sales.
• Rising levels of total assets relative to sales / profit.
• Operating losses.

Receivable Aging

• Extended average age of receivables.
• Changes in credit policies.
• Extended terms.
• Replacement of accounts receivables with notes receivable.
• Concentration of sales.
• Compromise of accounts receivable.
• Concentrations of seriously past due accounts.
• Receivables from affiliated companies.

**Early Operations Warning Signals**

• Change in the nature of companies business.
• Poor financial records and operating controls.
• Inefficient layout of plants and equipment.
• Poor use of people.
• Loss of key product lines, franchises, distribution right.
• Loss of one or more financial sound customers.
• Substantial jump in the size of single order.
• Speculative inventory purchases that are out of line with normal purchasing practices.
• Poor maintenance of plant and equipment.
• Deferred replacement of plant and equipment.
• Large inventories or inappropriate mix of inventories.

**Early Banking Warning Signals**

• Declining bank balances.
• Poor financial planning for fixed assets requirement or working capital requirement.
• Heavy reliance on short-term debts.
• Marked changes in timing of seasonal loan request.
• Loans where purpose is “working capital”.
• Calls from existing suppliers requesting information to evaluate request for special terms or expanded credit information.
• Calls from new suppliers requesting information to open new credit lines.
• Appearance of other lenders in financial picture, especially collateral lenders.