

## **CHAPTER SIX**

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## **CHAPTER NO. 6**

### **RISK MANAGEMENT**

#### **6.0 INTRODUCTION:**

Risk is the situation where there are a number of specific, probable outcomes, but it is not certain as to which one of them will actually arise. Risk means the probability that the actual return on an investment will differ from its expected return. Risk is the major constraint on the investment and return on investment is the major opportunity or benefit. The term risk and uncertainty are often used in place of each other, however, certainty is a state of being completely confident and there is no doubt of what ever being expected. Risk is no more an abstract concept. It is a variable, which can be calculated, measured and compared.

#### **6.1 RISK –DEFINITION:**

Risk may be defined as the probability of incurring a loss or damage. Due to rapid environment changes and complexity of a banks balance sheet, risk are not only complex in nature, but also varied in direction.

When the whole world is turning to be a global village, effective risk management system is the need of the day. Identifying the risk and minimizing is the basic requirement. However, even the effective risk management practices cannot avoid losses. Risks can be minimized but never be fully erased.

Any decision, either financial or non-financial, short term or long term, relating to input or output involves risk. The types of risks include operational, transactional, depository, duration, credit, interest rate, transfer, competitive, managerial, legal, disaster, documentation, concentration etc.

Based on the personal visit to some of these banks and discussion with various bank employees it is observed that bearing few scheduled UCBs most of other UCBs lack in-depth knowledge and information of risk management. Even the questionnaire prepared and answered by these banks suggests that they have less exposure to varied aspects of risk. In the survey carried out for 118 UCBs it was observed that except liquidity and reputation risk only around twenty per cent of the banks survey possess the minimum required education of risk management. Therefore, an attempt is made through this study

to provide as many aspects as possible in a summarized form in this chapter. This chapter may cover such points that are not related to every UCB but are useful in future.

## **6.2 RISK PROFILE OF INDIAN BANKS:**

The risks faced by Indian banks, particularly during last few years are given below.

- Currency risk arising out of increasing transactional trade.
- Currency fluctuations, particularly in dealing with hard currency areas, which are the largest trade partners of India.
- Concentration of credit to particular single or group borrowers as also to particular industry.
- Uncertainty associated with lending to weaker sections in the absence of backward and forward linkages.
- Likely competition from private and foreign banks in metro centers, because of their technological and resources base.
- Partial and ad hoc interest rates deregulation, causing problems in spread management and planning thereof.
- Social issues imparting the economic issues like anti-power company agitation.
- Managing the volume and diversity of manpower with the changing skills and knowledge requirements.
- Planning for succession and continual handling of new and existing products.
- Positioning of new products for meeting the increasing customer demand at competitive prices
- Technological obsolescence, at a fast rate, although the investment in technology is on the rise.
- Increasing instances of fraud, embezzlement, robbery, computer insecurities causing newer and more operational risks.
- Tendency to obtain credit rating by corporates, compelling discriminatory interest rates, perhaps relating risk and reward by banks.
- Selective ignorance by monetary authorities in times of crisis.

The aforesaid is a list of both, financial and non-financial risks involved in the banking industry. The whole gamut of risk factors gives rise to the need of a solution- Risk Management.

### **6.3 RISK MANAGEMENT- OBJECTIVE AND PROCESS:**

“A primary objective of the risk management function is to ensure that limits are set to each business. These limits should reflect the risks being run and the level of risk the management is willing to take. The function should also serve as an independent check to ensure the traders operate within their limits, that exceptions are reported and actioned promptly, that sensitivity to changes in market and their impact on value of and losses are regularly recomputed and reconciled to the accounting records and if necessary the records maintained by traders”.<sup>1</sup>

The risk management process is given below:-

1. Identification involving-
  - a. Understanding risk specific to each bank.
  - b. Studying the nature of risk.
  - c. Visualising complex and non-complex risk.
  - d. Assuring whether the risk can be quantified.
2. Measurement including-
  - a. Understanding complexity and impact of risk in terms of measurement.
  - b. Establishing quantification mechanism.
3. Determination of tolerance involving-
  - a. Knowing tolerance levels.
  - b. Defining tolerance in policies and procedures.
  - c. Deciding profitability targets.
4. Management of acceptable risk including-
  - a. Formulation of policies and procedures.
  - b. Involvement of senior management committee.
  - c. Adhering to policies or procedures.
  - d. Establishing information system.
  - e. Documenting course of action when risk is excessive.
  - f. Planning profitability.

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<sup>1</sup> Measuring Financial Risk in the 21<sup>st</sup> Century, Capital Market Risk Advisors, Spring, 2002.

Risk is the potential that both the expected and unexpected events may have an adverse impact on the bank's capital or earning. The expected losses are covered by reserves and provisions and the unexpected losses require capital allocation that has resulted in to formation of capital adequacy ratio.

#### 6.4 TYPES OF RISK:

As per the RBI guidelines there are three major types of risks:

1. Credit risk
2. Market risk
3. Operational risk

RISK		
Credit risk	Market risk	Operational risk

##### 6.4.1 CREDIT RISK:

It is the oldest and most fundamental risk. As per Basel Committee, " it is the potential that a bank borrower or counter party will fail to meet its obligations in accordance with agreed terms". The goal of credit risk management is to maximize a bank's risk adjusted rate of return by maintaining credit risk exposure within acceptable parameters. The credit risk can be divided into three risks.

1. Default risk
2. Exposure risk
3. Recovery risk

**6.4.1.1 Default risk** is the probability of an event of default that may be in form of:

- Payment default: - means a scheduled payment is not made even after minimum period, say three months, after the due date.
- Technical default: - breaking a covenant
- Economic default: - when the economic value of assets goes below the value of outstanding debts

Default risk is measured by the probability of default occurring during a given period of time and depends upon the credit standing of a borrower.

**6.4.1.2 Exposure risk** is generated by the uncertainty associated with future amounts at risk. It is not necessary that exposure risk is with all lines of credit. For credits where there is a repayment schedule, the exposure risk can be very small or even

nil. However, all off- balance sheet items can generate future exposure such as when the bank is committed to lending money up to some maximum amount as per the requirement of the borrower.

**6.4.1.3 Recovery risk** is uncertainty of recoveries in the event of default, which may be in form of:

- **Collateral risk:-** collaterals can be like cash, other current assets or fixed assets. The value of collateral depends upon its nature and the market conditions. Fixed assets often has a low resale value where as the value of cash collateral is certain.
- **Third party guarantee risk:-** Guarantees are given by third parties to the banks at the request of the borrowers. Third party guarantees transform the default risk of the borrower into a combined risk of the borrower and his guarantor.
- **Legal risk:-** if legal procedure are involved in case of payment default it give rise to legal risk where recoveries may be delayed until some legal conclusion is arrived.

<b>CREDIT RISK- A summary</b>		
<b>1. Default risk-</b>	<b>2. Exposure risk -</b>	<b>3. Recovery risk-</b>
a. Payment default	a. Less exposure	a. Collateral risk
b. Technical default	b. More exposure	b. Third party guarantee risk
c. Economic default		c. Legal risk

As per new changes default in bank arises when a scheduled payment obligation is not met with in 90 days from the due date. From a quantitative point of view credit risk is measured by the loss in the event of a default. It results from a combination of default risk, exposure risk and recovery risk. The resulting loss can be calculated as follows:

$$\text{Loss} = D \times X \times (1 - R)$$

Where, D= default in percentage

X= exposure value

R= recovery rate in percentage

The suitable measures of default risk are the Probability of Default (PoD) and Loss given Default (LGD). The loss faced by the bank in case of a default by the borrower is called LGD. This loss is also dependent upon bank's exposure to the borrower at the time of default generally called as Exposure at Default (EaD). Therefore, the Expected Loss Given Default (ELGD) can be calculated as

$$\text{ELGD} = \text{LGD} * \text{PoD} * \text{EaD}.$$

Where, LGD = Loss given Default.

PoD = Probability of Default.

EaD = Exposure at Default

### **Instruments and tools of credit risk management**

Credit risk management is one of the important components of risk management system and this receives special attention of Board of Directors or Top management. They should be well aware with the following instruments and tools of credit risk management summarized below.

- **Exposure Ceilings** – Banks have prudential limit linked to capital fund in the lending process. The threshold (point below which stimulation causes no reaction) limit can be at a level lower than prudential limit. However, the substantial exposure (total of exposure beyond the threshold limit) should not exceed 6 to 8 times of the Capital Funds of the banks.
- **Process of review and renewal** – authority approving credit on the basis of the requirement of the borrower use to do it. More credit is given to better-rated customers. There is a discriminatory time schedule for review / renewal. However, the periodicity for renewal is based on risk rating.
- **Risk based scientific pricing** – banks relate loan pricing to expected loss i.e., high-risk borrowers are to be priced high and vice-versa. The banks build historical data in default loss. They can allocate capital to write off unexpected loss.
- **Portfolio Management** – here the bank decides ceilings on aggregate exposure on some rating. It distributes the borrowers into various groups. The banks initiate steps to preserve the desired portfolio quality and integrate portfolio review with credit decision-making process.
- **Loan Review Mechanism** – banks do this independently apart from credit operation and administration. It covers all loans above certain limit and

ensure that all major credit risks included in balance sheet are involved. The tool can review the loans portfolio within a year. Regular and prompt reporting is a part of this mechanism.

- **Risk Rating Models** – banks can have their own risk-scoring system by defining the rating thresholds and reviewing the ratings on a periodical basis. Some of the risk rating models used are briefed below:
  - Altman's Z score Model involves forecasting the probability of an organization entering bankruptcy. It converts certain financial ratios into a simple index.
  - Credit Metrics, developed by J. P. Morgan, focuses on estimation of the volatility of asset values caused by variation in the quality of assets. The model tracks rating migration – the probability that a borrower of one risk rating migrates to another risk rating.
  - Credit Risk plus is developed by Credit Suisse First Boston. It is a statistical method for measuring and accounting for credit risk. The model is based on actual rates and unexpected losses from defaults.
  - McKinsey's credit portfolio view is a multi-factor model which is used to stimulate the distribution of default probabilities, as well as migration probabilities conditioned on the value of macro-economic factors like the unemployment rate, GDP growth, forex rates, etc.

“A 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 need to hold in reserve”.<sup>2</sup>

#### 6.4.2 MARKET RISK:

It may be defined as the risk to the bank's earning and capital or possibility of loss to a bank caused by the changes in the market variables like interest rate, currency exchange rate, commodity prices, equity prices etc.

Market Risk Management provides a comprehensive framework for measuring, monitoring and managing liquidity risk, interest rate risk, foreign exchange risk, country risk and equity price risk.

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<sup>2</sup> R S Raghavan, Senior Manager, Vijaya Bank, Bangalore – “Risk Management – An Over View”, IBA Bulletin November 2002, p 16



<b>MARKET RISK</b>			
<b><i>Liquidity risk</i></b>	<b><i>Interest rate risk</i></b>	<b><i>Forex risk</i></b>	<b><i>Country risk</i></b>

One of the intermediation functions of the banks is to provide liquidity to the customers. It is therefore important that bank's own liquidity is at a comfortable level. "Bank liquidity may be defined as ability to raise a certain amount of funds at a certain cost within a certain amount of time". If a bank is in a position to raise additional funds at a cheaper rate in a shorter period compared to another bank, then the liquidity position of that bank is considered better than the other bank.

**6.4.2.1 Liquidity risk:** It is the potential inability of a bank to meet its liabilities as they become due. "It is the possibility that an institution may be unable to meet its maturing commitments or may do so by borrowing funds at prohibitive costs or by disposing assets at rock bottom prices".<sup>3</sup> It arises from the mismatches in the maturity pattern of assets and liabilities. Study of liquidity risk includes both the measurement of liquidity position of the bank on an on going basis and examination of fund requirement in under crisis situation. The liquidity risk of the banks has different dimensions that are as follows.

<b><i>Liquidity risk</i></b>		
<b>Funding risk</b>	<b>Time risk</b>	<b>Call risk</b>

- Funding risk- it is need to replace outflows due to unanticipated withdrawal / non renewal of deposits
- Time risk – It need to compensate for non-receipt of expected inflows of funds, i.e. performing assets turning in to non-performing assets.
- Call risk – It happen on account of crystallization of contingent liabilities and inability to undertake profitable opportunities when desired.

There is a need of liquidity in banks to provide funds to meet the net reduction in deposits and to provide funds to meet the increase in loans and investments that are rising faster than deposits.

As per the statutory requirement all UCBs (scheduled and non-scheduled) are required to maintain stipulated level of Cash reserve ratio (CRR) and statutory liquidity ratio (SLR).

<sup>3</sup> Bank Financial Management, Indian Institute of Banking and Finance, Taxmann publications, 2004, p 174

The present level of CRR, as per the RBI circular dated 13<sup>th</sup> September 2004 for scheduled UCBs is as follows:

<b>Effective date (i.e. the fortnight beginning from)</b>	<b>CRR on net demand and time liabilities NDTL (per cent)</b>
September 18, 2004	4.75
October 02, 2004	5.00

However, the effective CRR maintained by scheduled UCBs on total demand and time liabilities shall not be less than 3.00 per cent, as stipulated under the RBI Act, 1934. With a view to provide flexibility to banks and enable them to choose an optimum strategy of holding reserves depending upon their intra period cash flows, the scheduled UCBs are presently required to maintain average daily balance of 70% of the CRR balance required to be maintained by them, based on their NDTL, as on the last Friday of the second preceding fortnight.

As per the Banking Regulation Act, 1949 (as applicable to Co-operative Societies) every UCB (not being scheduled bank) is required to maintain on a daily basis cash reserve, the amount of which shall not be less than 3 % of its DTL as obtaining on the last Friday of the second preceding fortnight.

For SLR every bank (scheduled and non-scheduled), is required to maintain, on daily basis, liquid assets, the amount of which shall not be less than 25% or such other percentage not exceeding 40% as may be notified by RBI, of its DTL in India as on the last Friday of the second preceding fortnight.

Presently these banks are required to maintain a uniform SLR of 25% of their total DTL in India.

The potential sources of bank liquidity are as under:

- Money at calls and short notice.
- Short Government securities.
- Other marketable short term securities.
- Bills rediscounting.

However, the source of liquidity risk in banks may be as under:

- Mismatch in maturity profile of Assets and Liabilities.
- Option of prepayment on term deposits and loans.
- Non- Performing Loans.
- Not-drawn credit limits.

In case of UCBs holding excess liquidity has an effect on profitability because fluid assets in the form of cash, bank balance and short-term securities generate lower returns. Therefore, the objective of liquidity management should be to maintain statutory requirements as mentioned earlier, meet contractual or maturing cash outflows and make efficient use of available surplus cash. "Liquidity risk management basically involves effectively managing cash flows as also concentration of assets and liabilities both on and off balance sheet items with a view to satisfy that cash inflows have an appropriate relation to approaching cash flows".<sup>4</sup>

### **RBI Guidelines on Liquidity Management**

With respect to Liquidity Risk Management, RBI has asked the banks to measure the liquidity position on regular basis as well as to find out how liquidity needs are evolve under different situations. RBI says, liquidity can be tracked through cash flow mismatch. In order to measure and manage net fund requirements, banks can use maturity ladder and calculation of cumulative surplus or deficit of funds at a selected maturity dates. It has further added that banks can prepare Statement of Structural Liquidity based on cash flows mismatch on a fortnightly basis. The mismatch up to one year would be relevant consisting of such time baskets as it will provide an early signals of danger of reducing liquidity in a bank. RBI thrust up on short term mismatches i.e. 1 to 14 days and 15 to 28 days. Board of Directors should help in establishing standards limits related to such cumulative mismatch across all time baskets.

As per the guidelines the negative gaps representing excess of outflows over inflows during 1 to 14 days and 15 to 28 days in normal situations may not exceed 20 per cent of cash outflows in each time basket.

The liquidity requirements can be assessed through structural gap analysis as well as dynamic gap analysis.

### **Structural Liquidity Gap Analysis:**

As per the RBI design banks can prepare statement of Structural Liquidity by placing all cash inflows and outflows in the maturity ladder according to the expected timing of cash flows. The time baskets may be in eight forms as given below:

1. 1 to 14 days.
2. 15 to 28 days.

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<sup>4</sup> Bank Financial Management, Indian Institute of Banking and Finance, Taxmann publications, 2004, p 177

3. 29 days and up to 3 months.
4. Over 3 months and up to 6 months.
5. Over 6 months and up to 1 year.
6. Over 1 year and up to 3 years.
7. Over 3 years and up to 5 years.
8. Over 5 years

**Table No. 6.1 Performa Statement of Structural Liquidity Gap Analysis**

(Rs. in lakhs)

OUTFLOWS	1-14 days	15-28 days	29 days up to 3 mts.	Over 3 mts. up to 6 mts.	Over 6 mts. up to 1 yr.	Over 1 yr. up to 3 yrs.	Over 3 yrs. up to 5 yrs.	Over 5 yrs	TOTAL
Capital									
Reserves and surplus									
Deposits									
Borrowings									
Other liabilities and provisions									
Line of credit committed									
Unavailed portion of CC/ OD									
Letter of Credit / Guarantees									
Repos									
Bills Rediscounting									
Swaps									
Interest Payable									
Others									
<b>TOTAL OUTFLOWS</b>									
INFLOWS	1-14 days	15-28 days	29 days up to 3 mts.	Over 3 mts. up to 6 mts.	Over 6 mts. up to 1 yr.	Over 1 yr. up to 3 yrs.	Over 3 yrs. up to 5 yrs.	Over 5 yrs	TOTAL
Cash									
Bal With RBI									
Bal With other banks									
Investments									
Advances (Performing)									
NPAs (advances & investments)									
Fixed assets									
Other assets									
Reverse Repos									
Bills rediscounting									
Swaps /maturing forwards									
Interest Receivables									
Committed line of credit									
Export refinance from RBI									
Others									
<b>TOTAL INFLOWS</b>									
<b>MISMATCH (inflows-outflows)</b>									
<b>Cumulative Mismatch</b>									
<b>Mismatch as a % of total outflows</b>									

RBI has given ways for putting cash inflows and outflows in different time baskets summarized below:

**For cash outflows**

1. Capital, Reserves and Surplus- to be placed in time basket of 'Over 5 years'.
2. Fixed deposits- to be placed in time baskets of respective maturity.
3. Saving deposits- portion of deposit withdrawn on demand (10 %) in 1 to 14 days basket remaining in 1 to 3 years basket.
4. Current deposits- portion of deposit withdrawn on demand (15 %) in 1 to 14 days basket remaining in 1 to 3 years basket.
5. Certificate of deposits- to be placed in time baskets of respective maturity.
6. Bills payable- volatile portion in 1 to 14 days basket and remaining in 1 to 3 days basket.
7. Inter-Branch Adjustments- to be placed in time basket of 1 to 14 days.
8. Provision for other than loans loss- to be placed in time baskets of respective maturity.
9. Other liabilities- to be placed in time baskets of respective maturity.
10. Export refinances availed- to be placed in time baskets of respective maturity.
11. Export refinances unavailed- to be placed in time basket of 1 to 14 days.

**For cash inflows**

1. Cash- to be placed in time basket of '1 to 14 days'
2. Balance with RBI- excess balance over the required CRR/SLR may be shown under 1 to 14 days basket and the statutory balances may be shown under various time baskets according to the maturity profile of DTL with a time span of 14 days.
3. Balance with other banks- the portion of current account in form of minimum balance not to be withdrawn may be shown in 1 to 3 years basket and remaining under 1 to 14 days basket.
4. Investments- in the respective maturity baskets excluding the amount required to be invested to maintain SLR corresponding to DTL
5. Bills purchases and discounted- to be shown under respective time baskets.
6. Terms loans- to be placed in time baskets of respective maturity.
7. Cash credit/ overdraft- volatile portion in 1 to 14 days basket and remaining in 1 to 3 days basket.
8. Sub-standard assets- over 3 to 5 years basket.

9. Doubtful assets- over 5 years basket.
10. Inter-Branch Adjustments- to be placed in time basket of 1 to 14 days.
11. Intangible assets- over 5 years basket.
12. Contingent liabilities- in form of committed to/from institutions is to be shown in 1 to 14 days basket. Cash credit / over draft facility unavailed to be placed in relevant time basket.
13. Bills rediscounted - in respective maturity time basket.
14. Swap/Interest receivable- in respective maturity time basket.

The Structural Liquidity Gap Analysis report may be analysed to find out following points.

1. Negative mismatch (cash outflow – cash inflow) specially in first two time baskets as they should not be more than 20% of outflows as guided by RBI.
2. Any significant change in or level of cumulative outflow of cash.
3. Concentration of deposits, advances and investments in a particular time basket.
4. Increase in assets and liabilities as per the different periods (short/medium/long) and there effect on asset management and liability management.
5. To check whether required portion of long-term assets is financed by long-term liabilities.
6. Is there any excess dependence on call money/ borrowings?
7. Is there any big deposits or borrowing is maturing for payment in a near another 14 days?
8. To check that mismatch in every time basket should be with in the boundary as decided by bank's managing body.
9. The effect of off balance sheet items on the cash flows, like letter of credit and guarantees.

As every tool has its own limitation the Structural Liquidity Gap Analysis has a main limitation that it is based on positioning of assets and liabilities on a particular date and change if any in future is not considered.

Most simply way of finding out risk is ratio analysis. Liquidity ratios give the basic ideas to judge the liquidity position of any bank. However, no single liquidity ratio can give a total idea of liquidity position of a particular bank at a point of time. So, a combination of

such ratios as per the feature of a particular bank can be calculated. It is also necessary to decided prudent limits for some key liquidity ratios. .

Both the above approaches, Structural Liquidity Gap Analysis and Key Ratio Analysis do not get in to the changing nature of liquidity management. The assets and liabilities of a bank continuously changing with change in the business environment. Therefore, it is necessary that liquidity of bank needs to be used on a dynamic basis.

#### **Dynamic Liquidity Gap Analysis:**

It is primarily an extension of Structural Liquidity Gap Analysis. The outflow and inflow of cash is projected in the same manner as compare to Structural Liquidity Gap Analysis. However, changes on account of new business are interpolated in the projections. Tracking the cash flow in a long-term may be difficult practice but it can be carried out on a short-term basis using Dynamic Liquidity Approach. Even the RBI has suggested to the banks to examine their short-term liquidity on a dynamic basis over a time period 1 to 90 days. A Performa for finding the short-term dynamic liquidity as given by RBI is as under:

**Table No.6.2 : Performa Statement of Dynamic Liquidity Gap Analysis**

(Rs. in lakhs)

<b>OUTFLOWS</b>	<b>1 to 14 days</b>	<b>15 to 28 days</b>	<b>29 to 90 days</b>
Net increase in loans and advances			
Net increase in investments			
- Approved Securities			
-Money Market Instruments			
-Bonds/ Debentures/Shares			
-Others			
Inter-Bank Obligations			
Off balance sheet items (Repos, swaps, bills discount, etc )			
Others			
<b>TOTAL OUTFLOWS</b>			
Net cash position			
Net increase in deposits			
(Less CRR obligations)			
Interest on Investments			
Inter-bank claims			
Refinance eligibility (export credit)			
Off- balance sheet items (Reverse Repos, swap, bill discounted)			
Others			
<b>TOTAL ONFLOWS</b>			
<b>MISMATCH (Inflows-Outflows)</b>			
<b>Cumulative mismatch</b>			
<b>Mismatch as % of total outflows</b>			

In the above Statement of Dynamic Liquidity Gap Analysis following points can be determined as follows:

1. Net increase in loans and advances-
  - a. Based on fresh sanctions to take place in future and loans already sanctioned but not distributed.
  - b. Working capital facilities in form of cash credit that may have large limits sanctioned but not fully utilized by the borrowers.
  - c. Historical trend analysis of seasonal and cyclical fluctuations.
  - d. Future growth plans of large borrowers.
  - e. Repayment and loan recoveries.
2. Net increase in investments-
  - a. Based on need for Statutory Liquidity Requirements (SLR).
  - b. Banks investment policy and liquidity considerations.
  - c. Availability of various securities for auction at a particular time.
  - d. Past trends and estimates.
3. Inter-Bank obligations-
  - a. Call and term money.
  - b. Repos transactions that involve sale of securities with the condition to repurchase them.
  - c. Out going interest.
  - d. Increase in float funds.
4. Net cash position- it is the cash held by the bank at various branches plus balance with RBI (less minimum cash that is required to be maintained with RBI for CRR plus balance with other banks)
5. Net increase in deposits-
  - a. Past trends and market thrust for deposits.
  - b. Measurement of volatile (traditionally whole sale deposits) and core deposits.
  - c. Need to scan customers' profile of deposits from point view of retail deposits.
  - d. New source of deposits.



6. Interest in flow on Investments
7. Inter bank claims
8. Refinance eligibility- banks can avail the export credit from RBI to meet the short-term liquidity needs.
9. Reverse Repos- it is in the second leg of the transaction when securities are returned back and amount earlier advanced is received back.
10. Swaps- they generally involve exchange of interest obligations.

The mismatch of cash inflows and outflows of the above items will provide an overview of liquidity position of the bank in short run. A position where cash outflows are substantially higher than cash inflows, the bank may face liquidity crisis. The extent of negative mismatch as a percentage of outflows will determine the severity of the liquidity problem. RBI has prescribed that, “negative mismatch in first two baskets ‘1-14 days’ and ‘15-28 days’ not to exceed 20% each of the cash outflows”.

During the crisis liquidity management is more crucial as the demand for deposit withdrawals will be heavy while other sources for funding these outflows may not be available or available at high cost. It is therefore, important to visualize various situations that can arise in future to make a scenario analysis.

### **Situation Analysis-**

It is the assessment of liquidity requirement of the bank under different situations that helps management to decide strategy and contingency plan to meet the crisis before they actually come up. These situation analyses can be related to bank or market.

Situation Analysis	
Related to bank	Related to market

1. Related to bank- such crises are due to specific problems faced by the banks.
  - a. Because of panic.
  - b. Loss of reputation in the minds of the depositors.
  - c. Unsatisfactory financial results of the bank.
  - d. Sharp decline in prices of shares.
  - e. Large number of non-performing assets
  - f. Depositors looking for withdrawal of deposits.
2. Related to market- such problems arises because of change in money market may be due to:

- a. Change in monetary policy by RBI.
- b. Change risk perception of the banking system.
- c. Market disruptions.
- d. Failure of one of more banks
- e. Financial crisis.
- f. In a recession situation.

The recent crisis of liquidity faced by co-operative banks in the state of Gujarat and Maharashtra are good examples of such risk. Under the above situations roll over of high value customer deposits could be extremely difficult while flight of volatile deposits becomes likely. Various situations can be visualized based on economic environment and past trends and their impact on liquidity position of the bank can be analyzed.

In banks measuring and meeting liquidity needs is an important task. Bank's long-term profitability may be affected if a bank has large funds in low earning liquid assets in relation to its need for such liquidity or on the other side very small liquidity may lead the bank to severe financial problems. So, banks need to develop proper plan to maintain desired level of liquidity.

### **Liquidity Planning**

It is a necessary function of any bank management. It depends up on need, period, situations, seasons, trade cycles etc.

<b>Liquidity Planning</b>				
Short-term	Medium-term	Long-term	Optimum level	Contingency

#### **Short –term liquidity planning-**

The need of such planning may arise due to:

- Seasonal factors.
- Need of the holders of sizable deposits.
- Need and intention of large customers.

Short-term liquidity need should be meet through:

- Call money market or inter bank term money market.
- Repo transactions.
- Investments in 90 days and 365 days Treasury bills.
- Refinance facilities from RBI/ other banks.
- Line of credit from other banks.

### Medium-term liquidity planning-

They are also known as cyclical needs. They arise because of

- Economic recession or boom.
- Interest rates movement.
- Political pressure.
- Lack of confidence in bank's ability to repay debts obligations.
- Large deposits and borrowings from foreign sources.

Medium-term liquidity needs should be planned through study of correlation pattern between deposit flows and selected indicators like change in rates and change rate ceilings

### Long-term liquidity planning-

Such needs for planning generally related to customs and habits of the peoples in which the bank provide its services. In an area where development is taking place, loans often grow at a faster rate than deposits. In such a situation a bank needs source of liquidity to provide funds for loan expansion. However, in a developed area deposits may show a steady rise while loans remain more or less unchanged so the problem of liquidity is not that acute. A bank required planning the strategy accordingly.

### Optimum level liquidity planning-

It is basically a trade off between need for maximizing profits and need to meet all liquidity. Optimum level of liquidity can be further crystallized by deciding the amount of liquid assets it should hold as also proportion thereof to total assets. In order to determine such liquidity level the bank has to study / calculate:

- Maturity pattern of various assets and liabilities and maintain them.
- Business projections and past trends.
- Liquidity ratios to arrive at the level that bank require.

In such planning, liquidity needs to be balanced with profitability. Management should try to find out the full return of fluid assets against the higher return associated to less fluid assets and compare it with the expected loss of sale of illiquid assets to meet liquidity requirement.

### Contingency liquidity planning-

Planning of contingency liquidity is difficult because of uncertainly or unusual events. It includes:

- Unexpected outflows of deposits due to rumour.
- Natural climates like flooding, cyclone etc.
- War or signs of disturbance.
- Negative publicity of the bank.

The Co-operative banks in Gujarat and Maharashtra are the recent examples of such liquidity problems. However, banks should have plans to remain stable in case of some contingency arise.

### **Liquidity Risk Management- some other measures**

➤ **Investment Planning-** Bank's investment can be one of the sources of liquidity management. By investment bank can provide liquidity through:

- Maturing securities.
- The sale of securities for cash.
- By the pledging of securities as collateral in a repurchase agreement.
- By other hypothecation.

However for regulatory purpose investment can be categories in to following ways:

1. Investment Available for Sale- they are expected to be actively traded and offer cash inflows in the time of liquidity need.
2. Investment Held to Maturity- such investments will be actually purchased and sold as they get matured results in to inflows of cash and helps to maintain liquidity.
3. Investment Held for Trading- these can be pledged in a repurchase agreement to provide the bank with a source of liquidity.

➤ **Liquidity Adjustment Facility-** RBI is banker of last resort. It can put funds into the system or take out to help the banks over temporary mismatch of funds. Now a days RBI do this by auction system of Repos and Reverse Repos.

Repos and Reverse Repos- It is a securities repurchase agreement where an bank agrees to sell a security to a counter-party and simultaneously commits to repurchase the security at a mutually agreed upon future date. While banks use Repos transactions as short-term relatively low cost funding measure, Reverse Repos are used as short-term investment avenues (pathways).

- **Back Stop Facility**-it is a facility provided by RBI to each scheduled bank as liquidity support at bank rate under Collateralised Lending Facility. Under this facility banks in securities are being provided a back stop facility at variable rate of interest support over the normal liquidity facility at bank rate.
- **Export Refinance Facility**- RBI provides refinance facilities to the commercial banks to the extent of 15% against eligible exports. These refinance facilities are presently available up to 50% as normal refinance and remaining 50% as back stop facility. The normal facility is at banks rate where as back stop facility is at variable rate. Banks can use these facilities to take care of short-term liquidity requirement.
- **Committed Line of Credit**- a bank avail credit from other banks to meet short-term mismatch of funds. Credit can be available to these banks against certain collateral that bear some commitment charge. Such credit as a source of liquidity needs to be cost efficient.
- **Borrowings** – they are the short-term as well as long-term sources for liquidity management for the banks. By managing borrowing in coordinated manner with asset liquidity needs, banks can tailor liabilities to fit their cash flow needs. However borrowings should be viewed as a supplemental source of funding rather than as a replacement for core deposits. Cost of borrowings as compared to cost of deposits needs also to be considered while determining preference for borrowed funds.
- **Asset Securitisation** – it means transfer or sale of balance sheet assets to third party who issues asset backed securities that are sold to investors. It is essentially a transfer of pool of assets into cash. Such securitised assets includes:
  - Credit card receivables.
  - Automobile loan receivables.
  - Commercial mortgage loans
  - Residential loans

It can be an effective funding method for the banks that have recorded a significant growth in assets but are finding it difficult to fund it due to low growth of deposits. They can apply this path of selling certain assets so as to generate adequate liquidity. With the

introduction of ‘The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002’ the asset securitisation is gaining a movement.

**6.4.2.2 Interest rate risk**

Interest rate risk refers to the vulnerability of a bank’s financial condition to the movement of interest rate. It is the potential negative impact on the Net Interest Income (NII). The change in the interest rate affects:

- Earnings of the bank
- Value of the assets and liabilities.
- Off balance sheet items.
- Cash flow.

Therefore the aim of interest rate risk management is to:

- Maintain earning of the bank.
- Improve the capabilities.
- Ability to absorb potential loss.
- To ensure adequacy of the compensation received for the risk taken.
- Effect risks return trade off.

The objective of interest rate risk management is to capture the risks arising from the maturity and re-pricing mismatch and measure them from the point view of earning as well as economic value perspective. The earning perspective studies the impact of changes in interest rate on accrual or received earnings in the near term. It is calculated by measuring the changes in the NII equivalent to the difference between total interest income and total interest expense. The economic value perspective identifies risk arising from long-term interest rate gaps. It is calculated as below:

Expected cash inflows on assets - Expected cash out flows on liabilities + Net cash flows on off-balance items.

The types of interest rate risk are disused below.

INTEREST RATE RISK	
• Mismatch risk	• Yield curve risk
• Basis risk	• Price risk
• Embedded option risk	• Reinvestment risk

Mismatch risk- bank act as an intermediary between the depositors and borrowers. It assumes liabilities and creates assets that are of different sizes and maturities. The difference between the interest received on assets and the interest paid on liabilities is the bank's Net Interest Income. So, mismatch or gap risk arises from holding assets and liabilities and off-balance sheet items with different principal amounts, maturity dates and re-pricing dates thereby creating exposure to unexpected changes in the level of market interest rate. However, just matching of maturity between assets and liabilities will not necessarily protect the bank from mis-match risk because such mis-match can be due to re-pricing at shorter intervals resulting in to interest rate risk. Such assets and liabilities that are prone to pricing and re-pricing based on interest rate are popularly known as Interest Rate Sensitive Assets and Interest Rate Sensitive liabilities.

- Interest Rate Sensitive Assets- deposits, borrowings, loans, investments etc.
- Interest Rate Sensitive liabilities- building, furniture, stationery, computers etc.

For a bank interest rate mis-match can arise on any day if more rate sensitive assets getting re-priced or matured than rate sensitive liabilities or vice versa. So if, over a time period:

- Rate Sensitive Assets > Rate Sensitive liabilities = Positive Gap.
- Rate Sensitive Assets < Rate Sensitive liabilities = Negative Gap.

**Table No. 6.3 Performa Statement showing bank asset and liability maturing/ re-pricing with in the maturity baskets**  
(Rs. in lakhs)

Assets/Liabilities	1-28 days	29 days- 3 mts	> 3 mts- 6mts.	> 6 mts- 1 year	> 1 year	Non sensitive	Total
<b>Assets</b>							
Cash							
Deposits with banks							
Investments							
Loans							
Premises							
<b>TOTAL (a)</b>							
<b>Liabilities and net worth</b>							
Current deposits							
Saving deposits							
Term deposits							
Borrowings							
Other Liabilities							
Net worth							
<b>TOTAL (b)</b>							
<b>Interest rate sensitive Gap (a-b)</b>							
<b>Cumulative Gap</b>							

The relationships between interest rate changes and their impact on NII can be summarized as below.

<b>GAP</b>	<b>INTEREST RATE CHANGE</b>	<b>IMPACT ON NII</b>
Positive	Increases	Positive
Positive	Decreases	Negative
Negative	Increases	Negative
Negative	Decreases	Positive

**Basis risk-** as discussed above that change in interest rate equally affects both assets and liabilities because of re-pricing. However, in real terms this extent of change in interest rate on re-pricing will depend upon the particular asset or liability subject to re-pricing. So, the basis risk means the risk of interest rate attached to different groups of bank's assets and liabilities changes in response to a given change in the key interest rate in the market. NII will be affected by basis risk perhaps what so ever may be the causes. But following are the major contributors to the basis risk.:

- Call money.
- Repos.
- Certificates of deposits
- Interbank term money.

It is a common phenomenon that in the situation of falling interest rate the interest rate on loans and advances may be lower while the interest rate on deposits may be higher.

**Embedded option risk-** it is risk that arises due to the option provided by the banks

- To depositors to prematurely close the deposits.
- To borrowers to prepay the advances.

In both the above cases NII will be affected. It may so happen that depositors prematurely close the deposits when interest rates increases and re-deposits at a higher rate. As against, borrowers may choose to prepay the loans and renew the same at the lower rate.

**Yield curve risk-** bank's yield in common parlances means earnings of the bank. A major portion of these earnings is contributed in form of spread i.e. the difference



between interest paid on deposits and interest received on advances / investments. Bank's objective is to increase the spread to increase the earnings. Yield curve risk arises because the interest spread decrease as term spread narrow down.

Price risk- it is the potential loss on account of change in interest rates. Generally all items of assets and liabilities are exposed to price risk. For example, in case of investments, its value changes inversely to interest rates. So, if interest rates in the market decrease investments in banks gain the value and if interest rates increase the investments suffer a loss in value. This change in value of investments is on account of the present value of the cash flow is altered when discounted by the new interest rate. The price risk will affect the values of assets and liabilities as present value i.e. market value vary with market interest rates. This will also affect market value on net worth (difference between market value of assets and liabilities) and ultimately affects the NII.

Reinvestment risk- it is uncertainty with regards to interest rate at which the future cash flow could be reinvested. For example, the expected earnings on investments is based on assumption that it will be held till maturity and the income received on account will be reinvested. However if it is not so then income from investments declines.

There are different techniques for measurement of interest rate risk :

- Maturity Gap Analysis- to measure the interest rate sensitivity.
- Duration Gap Analysis- to measure interest rate sensitivity of capital.
- Simulation-
- Value at risk- it is a statistical tool that measures the worst expected loss over a given time interval under normal market conditions at a given confidence level.

(These tools will be discussed in depth in next chapter.)

#### **6.4.2.3 Forex Risk**

When a bank suffers a loss as a result of adverse exchange rate movement, it is known as Forex risk. Such movement in exchange rate should be during a period in which it has an open position, either spot or forward or both in same foreign currency.

Forex risk may arise in case where spot or forward positions in individual currencies are balanced; the maturity pattern of forward transactions may produce mismatches.

Forex risk may be in form of settlement risk arising out of default of the counterpart and out of time lag in settlement of one currency in one center and the settlement of another currency in another time zone.

#### **6.4.2.4 Country risk**

Risk that arises because of cross-border transactions is called as Country Risk. Such risk is the result of recent concepts of globalization and liberalization. The Country risk situation arises when due to:

- The importer (buyer) has paid the money but was not delivered the goods for some reasons.
- The exporter (seller) has delivered the goods but was not paid due to some reasons.

#### **6.4.3 Operational Risk**

Any risk that is not categorized, as market or credit risk is generally known as operational risk. However, it is the risk of loss arising from:

- Various types of technical error.
- Various types of human error.
- Failure of internal process.
- Legal complications.
- Misappropriations and frauds.
- Failure of people and systems.
- External agencies.

In order to overcome or minimize such risk following measures can be taken.

- Efficient and effective internal check system.
- Efficient and effective internal audit system.
- Insurance cover through proper value measurement.
- Proper corporate governance practices

At present, there is no scientific tools or methods to measure operational risk, however as per the RBI guidelines to commercial banks 20% charge on the Capital Funds is earmarked for operational risk.

Under the new situations the Basel Capital Accord 1988 provides fair number of approaches for the measurement of credit, market and operational risks to determine the capital required. Basel city situated at Switzerland was the birthplace of this accord. Bankers' for International Settlement meet there to address the common issues concerning bankers all over the world. The Basel Committee on Banking Supervision being in consultation with supervisory of a few G-10 countries including India given core principles for effective banking supervision in the form of minimum requirements.

However, this accord provided only one way for measuring the appropriate capital in relation to the risk –weighted assets of the banks. As an improvement over the above, the New Capital Accord (Basel-II) was produced in 2001 and implemented from the financial year 2003-04. The structure of New Accord consists of three basic approaches as given below.

- Minimum Capital Requirement.
- Supervisory Review Process.
- Market Discipline.

The points of difference between the old and new accord are summarized below.<sup>5</sup>

Old Accord	New Accord
1. Focus on single risk measure.	1. More emphasis on Banks' own internal methodology, supervisory review and market discipline.
2. One size fits all.	2. Flexibility, menu of approaches, incentive for better risk management.
3. Board brush structure.	3. More risk sensitivity.

## 6.5 RESERVE BANK GUIDELINES FOR RISK MANAGEMENT SYSTEM IN BANKS:

According to the guidelines the management of credit should receive the prime attention of the top management. The banks should put in place the loan policy, approved by the board of directors covering the methodologies for measurement, monitoring and control of credit. The RBI guidelines states that the activities of Asset-Liability Management Committee and Credit Policy Committee for management of credit and market risk need to be integrated.

<sup>5</sup> IBA Bulletin, November 2002

The guidelines also require banks to evaluate portfolio quality on an on going basis rather than near about balance sheet date. The proposal for investment should be subjected to the same degree of credit risk analysis as loan proposals. The risk evaluation should also include total exposures, including investments. As regards off-balance sheet exposures, the current and potential credit exposures may be measured on a daily basis.

To manage the liquidity risk, banks have been asked to consider putting in place prudential limits on inter-bank borrowings, especially call funding, purchased funds, core deposits to core assets, off-balance sheet commitments, swapped funds etc. Banks have been asked to evaluate liquidity profile under banks specific and market crisis scenario. They have also been asked to prepare contingency plans to measure the ability to withstand sudden adverse swings in liquidity conditions.

“RBI asked the banks to fix definite timeframe for moving over to Value at Risk (VaR) and duration approaches for measurement of interest rate risk. The guidelines also mentioned that it would be desirable to adopt international standards on providing explicit capital cushion for the market risk to which banks are exposed”.<sup>6</sup>

Banks should also adopt proper system for measurement, monitoring and control of operational risk that is emerging in the wake of phenomenal increase in the volume of financial transactions.

The guidelines on risk management have placed the primary responsibility of laying down risk parameters and establishing the risk management and control system on the board of directors. They have, however, stated “the implementation of the integrated risk management could be assigned to a risk management committee or a committee of top executives that reports to the board. The guidelines also require banks to constitute a high level credit policy committee to deal with issues pertaining to credit sanction, disbursement and follow-up procedures and to manage and control credit risk in a whole bank basis. Reserve bank further, stated that due to the diversity and varying size of balance sheet items between banks, it may neither be possible nor may it be necessary to adopt a uniform risks management system. The design of risk management framework should, therefore, be oriented towards the banks’ own requirement dictated by the size and complexity of business, risk philosophy, market perception and the existing level of

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<sup>6</sup> Risk Management Tailoring Risk and Return, Chartered Financial Analyst, May 2001

capital. While doing so, banks may critically evaluate their existing risk management system in the light of the guidelines issued by the RBI and put in place a proper system for covering the existing deficiencies and requisite up gradation. It is also suggested that the banks should report the board the progress in implementation of the guidelines on a regular basis”.<sup>7</sup>

#### **6.6 THE PRE-REQUISITES FOR ESTABLISHING A RISK MANAGEMENT SYSTEM-**

“Establishing of a sound risk management system pre-supposes specification of and adherence to certain qualitative and quantitative criteria. The quantitative requirements provide a level of consistency necessary for a capital standard, while the qualitative requirements include aspects”<sup>8</sup>, which may take the shape of –

- a. Having risk control unit independent of the others.
- b. Implementing a regular programme for validation.
- c. Laying down procedures for periodic stress testing to evaluate the impact of unusual transactions.
- d. Adopting internal policies/procedures/controls, which are documented.
- e. Conducting independent review of risk management system to meet these criteria

Each bank has to address to certain pre-requisites. They are:

- a. Active board and senior management oversight.
- b. Adequate risk management policies and limits.
- c. Appropriate risk measurement and reporting systems.
- d. Comprehensive internal control system.

#### **6.7 RISK AND RETURN:**

For UCBs it is necessary to adjust the banks asset value and earning that are affected by risk. Like credit risk, interest rate risk, risk of not meeting regulatory commitments, technological risk, etc. To avoid negative effect in the performance the banks credit and interest, risk can be measured through a risk return framework of the over all banks performance.

Return on Equity (ROE) and the risk are the key element of the approach. Combination of these two elements provides insights regarding banks risks and returns. ROE can be

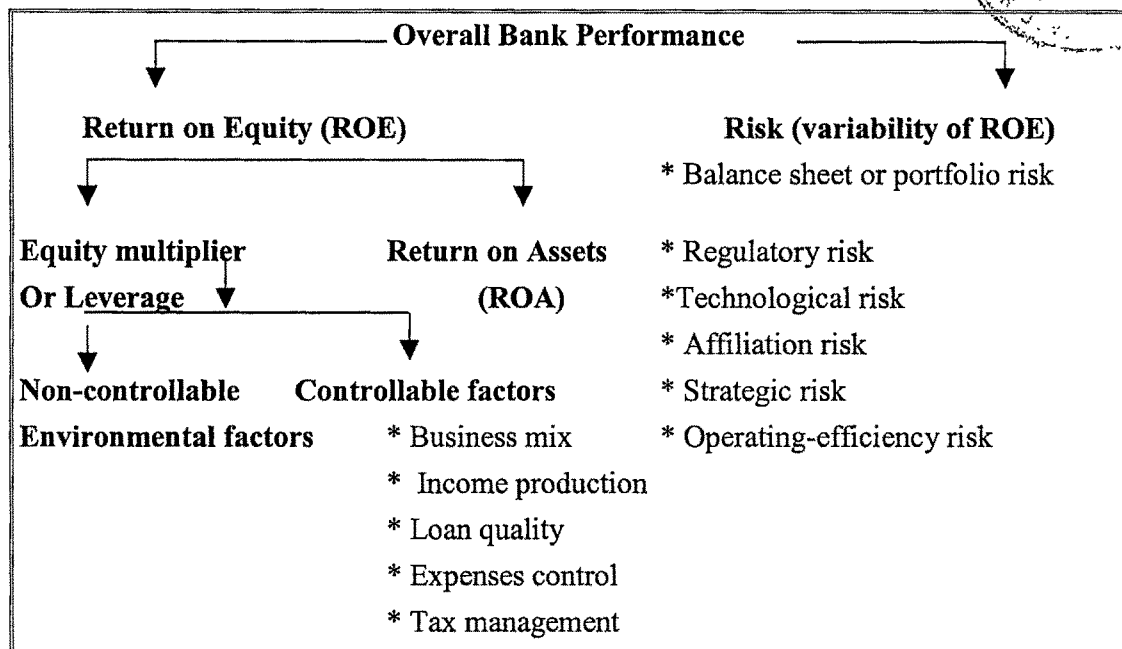
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<sup>7</sup> Summary of RBI guidelines for risk management system in co-operative banks- Report trends and progress of banking in India 1998-99

<sup>8</sup> Banks wake up to Risk management, The Economic Times, April 25, 2001.

split into return on assets and the equity multiplies i.e. Average Assets/ Average Equity.  
 Variability of each class and subclass of assets can be measured form past data.

#### A Risk Return view of Banks Overall Performance



Source: Suggested by Gillis, Iurnry and Oswals, (1980), Bank Valuation, Market and Accounting Measures of Performance by Joseph F. Sinkey, Jr.: Commercial Bank Financial Management, Macmillan Publications

#### 6.8 RETURN ON EQUITY (ROE):

The shareholders as well as the management of any UCB is more interested in knowing how much their investment has earned. It is the amount of profit available to its members after all statutory provisions. The ROE for the selected UCBs in Gujarat under study is as follows.

**Table No. 6.4 Return on Equity of Selected urban co-operative banks in Gujarat (1992-93 to 2003-04)**

NAME OF BANK	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2K	2K-01	01-02	02-03	03-04	AVG
Anyonya Co-op Bank	0.53	0.44	0.39	0.32	0.41	0.28	0.24	0.17	0.07	0.10	0.00	0.00	0.25
Bhavnagar Nagrik Bank	0.36	0.33	0.34	0.32	0.31	0.33	0.27	0.25	0.25	0.26	0.58	0.56	0.35
Dahod Urban Bank	0.24	0.19	0.20	0.23	0.23	0.16	0.17	0.17	0.13	0.14	0.22	0.22	0.19
Godhara City Co-op Bank	0.20	0.18	0.11	0.20	0.25	0.24	0.22	0.19	0.19	0.14	0.28	0.28	0.21
The Kalupur Bank	0.04	0.06	0.08	0.09	0.09	0.10	0.09	0.08	0.08	0.06	0.06	0.04	0.07
Mehsana Urban Bank	0.37	0.32	0.27	0.27	0.28	0.34	0.31	0.27	0.23	0.18	0.07	0.06	0.25
The Modasa Nagrik Bank	0.40	0.39	0.40	0.45	0.57	0.55	0.44	0.44	0.41	0.45	0.38	0.29	0.43
The Rajkot Nagrik Bank	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.06	0.06	0.04
Sardar Bhuladwala Bank	0.23	0.13	0.16	0.24	0.31	0.25	0.17	0.19	0.11	0.03	0.00	0.07	0.16
The Surat People's Bank	0.35	0.30	0.28	0.32	0.41	0.28	0.24	0.24	0.14	0.14	0.70	0.82	0.35

The table no. 6.4 shows ROE of selected UCBs in Gujarat for a period twelve years. It is calculated as net profit divided by own fund. The table reveals that Modasa nagrik sahakari bank has the highest average ROE followed by Bhavnagar nagrik sahakari bank and the Surat people's co-operative bank. It can be observed that there is big increase in the ROE of Surat people's co-operative bank in the year 2002-03 where as in case of Anyonya co-operative bank it is almost reduced to zero in last 1-2 years of the study.

**Table No 6.5 Return on Assets of Selected urban co-operative banks in Gujarat (1992-93 to 2003-04)**

NAME OF BANK	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2K	2K-01	01-02	02-03	03-04	AVG
Anyonya Co-op Bank	2.20	2.06	1.85	1.32	1.49	1.01	0.43	0.57	0.23	0.40	0.00	0.00	0.96
Bhavnagar Nagrik Bank	2.19	1.87	1.99	1.61	1.33	1.26	0.96	0.81	0.76	0.94	1.02	1.02	1.31
Dahod Urban Bank	1.43	1.06	1.19	1.29	1.21	0.84	0.75	0.75	0.58	0.62	0.59	0.73	0.92
Godhara City Co-op Bank	1.20	1.05	0.68	1.13	1.38	1.24	0.99	0.82	0.81	0.62	0.69	0.76	0.95
The Kalupur Bank	0.89	0.97	1.52	1.82	1.99	1.87	1.19	1.20	1.33	1.89	1.96	1.30	1.49
Mehsana Urban Bank	3.33	3.02	3.69	2.96	1.92	1.93	1.60	1.47	1.24	1.40	0.91	0.93	2.03
The Modasa Nagrik Bank	2.97	2.98	3.21	3.20	3.69	3.37	3.02	3.10	2.82	5.22	4.99	4.11	3.56
The Rajkot Nagrik Bank	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Sardar Bhiladwala Bank	3.67	1.98	2.46	3.58	4.92	4.20	2.81	2.77	1.76	0.50	0.04	1.43	2.51
The Surat People's Bank	2.49	2.14	2.11	2.33	2.73	1.83	1.44	1.38	0.82	0.86	1.17	1.38	1.72

In the above table no. 6.5 Return on Assets (ROA) is calculated for selected UCBs in Gujarat. The amount of assets includes cash in hand; balance with RBI and other banks, money at call and short notice, investments and advances. ROA is obtained by dividing the net profit with assets. The Modasa nagrik sahakari bank has the highest average ROA followed by Sardar Bhiladwals paridi people's bank and Mehsana urban co-operative bank where as Rajkot nagrik sahakari bank has the least ROA throughout the period of study.

## **6.9 PROFITABILITY AND CAPITAL ADEQUACY IN RISK MANAGEMENT:**

There is a link between profitability and capital adequacy. Higher profitability leads to improvement in capital adequacy as retained profit get added to the capital funds. However, the reverse is not true. On the other hand profitability normally accompanies higher risk weighted assets build-up. Profitability depends on the returns profile of the assets portfolio.

It is a common understanding that higher the risk, higher is the possibility of earning profits. But in getting higher profits bank go for high-risk assets as they may bring down

the viability of the bank in the case of large loan defaults. Bank must plan care fully to limit their risk weighted assets which do not earn any return. The aspects to be considered carefully regarding Risk Weighted Assets are as follows:

**6.9.1 Swings-** the risk-weighted assets (RWA) do not remain stationary throughout the year. There will be swing in their position. The more liquid the RWA profile, the more is the possibility of swing. It is advantages to the bank as it can achieve optimum mix of maturities and the smooth management of the capital adequacy is facilitated. With the swing on one hand, the asset-liability maturity gap can be kept within manageable limits and on the other hand, maturity mix of various assets will facilitate efficient management of capital adequacy ratio. Since the risk levels of various assets falling into same category of risk weights would be different, the approach to risk management has to be bank-specific.

**6.9.2 Quality** – It is the most important factor for the bank. A quality asset will generate more profit and enable the bank to service capital and augment capital funds. The bank should employ extra efforts to build up 100% risk weighted assets by proper monitoring of advances once they are given and quick identification of incipient sickness as well as taking prompt action for rehabilitation.

**6.9.3 Liquidity-** It depends up on the maturity and marketability of the asset. An asset like units of UTI would be readily encashable and so highly liquid. Where as a term loan given for a project cannot be called back before its maturity. It is illiquid till due date. The profile of risk-weighted assets in banks is heavily oriented towards illiquid assets such as cash credit and term loans thereby restricting the flexibility in managing the size RWA with reference to the change.

A key factor to be kept in mind about RWA is the significance of a particular RWA in the total asset portfolio. The loans and advances are high yielding assets. Therefore, in management of Capital Adequacy Ratio, the management of loans and advances is relatively of higher importance and close monitoring is essential.

#### **6.10 VALUE AT RISK (VaR):**

It is considered one of the latest advancement in risk measurement. Value at risk is an estimate of maximum potential loss to be expected over a given period at certain



percentage of time. It is a procedure for estimating the probability of portfolio losses exceeding some specified proportion based on a statistical analysis of historical market price trends, correlations and volatilities. By VaR we can obtain some quantifiable measure of the potential change in the portfolio's value over a certain horizon. It is a way to move from portfolio exposure to the portfolio risk. Portfolio risk is a measure of the maximum potential change in the value of a portfolio of financial instruments with a given probability over a pre-set horizon. This term is commonly referred to as the Value at risk. VaR answers the question: How much can bank loss/gain with percent probability over a given time horizon? For example, if bank thinks that there is a 95% chance that the interest rate for 10- year government of India (GOI) security is likely to increase by one percent over the next week, bank can determine the maximum potential loss in their GOI securities portfolio by using the VaR methodology. However if the bank changes the confidence level from 95% or vary the rate of change, bank will get a different maximum potential loss. One important point to note is that bank will determine the potential loss of the entire portfolio. Even though bank considered the change in the 10-year securities, securities of other maturities in bank portfolio will be affected. The VaR approach also considers the interaction and correlation in the price movements of the different securities to determine the total loss or gain for the portfolio. This is different than a mere addition of the loss/gain of individual items in the portfolio as it considers the correlation amongst the different items.

“Although VaR is one of those quantitative factors that should be incorporated into a cohesive risk-measurement and risk management approach and is an extremely important one, the emphasis on VaR versus other quantitative and qualitative approaches has perhaps been too great”.<sup>9</sup>

“VaR is not panacea for all risk measurement and management issues. Many of the financial losses and management issues were caused by failures that a VaR measurement system would not have prevented. VaR should be a key part of a risk management framework driven by an explicit statement of philosophy and supported by policies, guidelines, and procedures, as well as quantification and control of risk.”

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<sup>9</sup> Risk management is good management, Canadian Treasurer, May/June, 2001

Risk itself is not bad, but risk that is mispriced, mismanaged, misunderstood, or unintended is bad. Therefore, the aim of risk management is not to nullify risk but rather to increase adequate risk-adjusted returns.

“VaR is not a worst-case scenario. There is actually no way to compute the worst loss because if one goes back in time- one can back to the crash of 1987 and the depression of 1929- one will always find losses that wagged the tail of the distribution. To be effective, VaR must be combined with various risk management tools”.<sup>10</sup>

To compensate for the limitations of VaR, most users combine VaR with Stress Testing. It is the test for doing a series of scenario analysis to investigate the effect of violation some of the basic assumptions underlying the Risk management. There is no standard way to do stress testing. It is just a way to experiment with the limits of a risk model and to think a way out. “Most efforts in risk measurement to date, have really been control processes and not the risk management. Risk Optimization is the next evolutionary step in risk management, where the capacity to manage risk is used to increase shareholder value and generate a competitive advantage”.<sup>11</sup>

Risk Optimization helps in determining exactly,

- What type and combination of risk to take?
- What is the precise trade-off between risk and reward?
- What is the appropriate product pricing to reflect the risk taken?

Risk optimization uses advanced analytical tools with links to strategy, portfolio structuring, limit setting, cost and operational controls and performance measurement. Risk- adjusted performance measurement is one of them (RAPM).

RAPM is a technique that is used to bring together and measure the trade of between risk and rewards. It is a measure that attempts to arrive at a true measure of return in relation to the level of risk taken.

“In RAPM ratio the denominator of our risk/ reward ratio becomes a measure of equity of economic capital. The amount of equity capital needed is that which is sufficient to act as

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<sup>10</sup> Risk Management in Banks How to Shield Yourself, Risk Management –An Introduction, risk management series, ICFAI

<sup>11</sup> S N. Bidani, P K. Mitra, Pramod Kumar, credit risk management, taxmann's publications

a buffer against unexpected loss. As expected losses are assumed to have been provided for, this factor must therefore be present in our measure of true of economic return”.<sup>12</sup>

Although VaR is a good starting point for banks that wants to quantify their risk, it does not attempt to integrate market, credit and operational risk in a way RAPM does.

Though most of the above points mentioned remained more or less theoretical to UCBs because different types of risk and management of risk differs from bank to bank as per their needs. However, the chapter of risk management is incomplete without the discussion of some of the key factors that has a physical appearance in the balance sheet of every urban co-operative bank now a day. Such major factors are discussed below.

#### **6.11 NON- PERFORMING ASSETS (NPAs):**

Banks are identified as financial centers specialized in the art of lending out funds mobilized from the customers. The evil effect of lending is clearly stated in a saying “Neither be a borrower; nor a lender”. If you lend money to your friend, you will not only loose your money but also your friend”. The statement indicates just how difficult it is to get back the money once again. Banks have certain social obligations to fulfill as per government directives and in such a situation the position of Banks is “Lend that much of money which it can afford to loose”. Irrespective of little set backs, the role of “Credit” cannot be undermined when compared to its usefulness to the economy. That is why an Economist said, “Credit has done more to enrich the Nations than all the gold mines in the world put together”.

“Credit is like getting paste out of the toothpaste; easy to get it and recovery is like putting it back to the tube a very difficult task indeed. That is the reason why good money lent sometimes becomes bad partly and in the Banking parlance it is called as Non Performing Assets”.<sup>13</sup>

The NPA concept presently in vogue was introduced by RBI for implementation in the banks in year 1993 based on the recommendation of Narasimham committee on ‘Financial System Reforms’, in line with internationally accepted norms. However, it doesn’t mean NPA concept is new. “It all started in the late 80s the concept of

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<sup>12</sup> Risk optimization Capitalisation on Risk, Foresight, the newsletter published by Price waterhouseCooper Ltd

<sup>13</sup> IBA Bulletin, June 2002, p 23.

classification of bank advances in several health-code categories though the terminology of non-performing advances was not existent at that time. The system existing during 80s was known as “Health code System”.<sup>14</sup>

The Narasimham Committee on Banking Reforms submitted its report to Parliament in December 1991. Many of the Committee’s recommendations have been accepted and implemented by the banks. One significant recommendation has been in the area of income recognition and mandatory provisioning for non-performing assets. From April 1, 1992-93, all banks were required to change over to the new accounting system for interest income and the provisioning norms.

The word NPA is not something new to the banker. It is regular but disguised loan asset. NPA represents the quantified credit risk.

“NPA is akin to “diabetes”. The term diabetes represents a physiological disorder where in a organ of the body is not functioning, as it should have been, Likewise, NPA is also a disorder resulting in non-performance of a portion on loan portfolio leading to no recovery or less recovery\income to the lender. As in diabetics, the aim and goal would then be to keep the incidence (of NPA) at the minimum for the simple reason you can never get away from it”.<sup>15</sup>

“NPA of the banks constituted a real economic cost to the nation as the scarce capital was locked up in unproductive use and consequently adversely affected the re-cycling of funds with the banks. With every rupee of standard assets becoming a NPA, the concerned bank is not only deprived of the interest income otherwise available on the standard assets, but it is also required to make provision against the said NPA or right it off by making a charge on its profit. Thus, NPAs were depriving the concerned banks of interest income and indirectly eating away the income otherwise generated by the standard assets”.<sup>16</sup>

#### **Reason for assets becoming NPAs**

- Lack of proper monitoring
- Reckless advances to achieve the budgetary targets.

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<sup>14</sup> IBA Bulletin, September 1995, p 41

<sup>15</sup> IBA Bulletin, October 2000

<sup>16</sup> The Narasimham Committee Report, 1998

- Poor credit appraisal system.
- Lack of vision\ foresightness while sanctioning\reviewing or enhancing credit limits.
- Lack of sincere corporate culture. Inadequate legal provisions for closure and bankruptcy.
- Change in the economic policies\environment.
- Non-transparent accounting policy and poor auditing practices
- Lack of coordination between Banks/FIs.
- Directed/schematic lending to certain sectors.
- Failure on the part of the promoters to bring in their portion of equity from their sources of public issue due to market turning lukewarm.
- Abolition of license raj and hotting up of competition in the liberalized Indian economy.

#### 6.11.2 Effects of NPAs

“NPAs is not only non-performing but also makes the banker and the bank non-performing”<sup>17</sup> because: -

- NPAs are drag on profitability of banks because besides provisioning banks are also required to meet the cost of funding these unproductive assets.
- NPAs reduce earning capacity of assets. Return on Assets also gets affected. NPAs carry risk weights of 100% (to the extent uncovered). Hence they block capital for maintaining capital adequacy.
- As NPAs does not earn any income they adversely affect Capital Adequacy Ratio (CAR)
- No recycling of funds.
- NPAs also attract cost of capital for maintaining CAR. Capital cost involves dividend for Tier I capital and interest for Tier II capital.
- Carrying NPAs require incurrence of cost of capital adequacy and cost of funds blocked in NPAs. “PSBs are incurring around as high as 11% of their NPAs as operating cost for monitoring and recovering NPAs every year”.

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<sup>17</sup> IBA Bulletin, July 2001

- NPAs demoralize the operating staff.
- Regulatory and credit rating agencies abroad are also not comfortable with the high level of NPAs of Indian Banks.
- New Branch licenses are also not given to the banks where they have high level of NPAs.

If amount of NPAs get out of hand, then it might signal the end for that bank for example<sup>18</sup>: -

Suppose ABC bank with Return on Investments of 5% and NPA at 12%. If the Total Assets are Rs.150 crores, with the corporate income tax of 40%, the entire profit of the bank will be wiped out if “X” % of its NPA turns into loss assets, then: -

$$\begin{aligned}
 X &= \text{Total Assets} / (1 - \text{tax}) * \text{NPA} \\
 &= (150 * 0.05) / \{(1 - 0.4) * 150\} \\
 &= 7.5 / (0.6 * 18) \\
 &= 0.6944 \\
 &= 69.44 \%
 \end{aligned}$$

i.e., the total returns of this bank will be completely wiped out if 70% of its NPA becomes Loss Assets.

### 6.11.3 Managing NPAs and Potential NPAs Through Identifiable Critical Factors:

Effective management of NPAs would broadly mean as under:

- Arresting degradation of standard assets to NPA category.
- Up gradation of existing NPAs to standard status at an accelerated pace.

It is important for the banks that potential NPAs are identified well in time for branches to devise methods for recovery of Due Amount. Such standard accounts will have certain Due Amount, known as Critical Amount Due, which if not recovered before next asset classification will result into a Non Performing Asset. Therefore, all such standard assets with Critical Amount Due will be considered as potential NPAs requiring immediate attention. Recovery of Critical Amount Due before next asset classification will arrest slippage of such accounts into NPAs.

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<sup>18</sup> IBA Bulletin, October 2000

Following the logic of 'Critical factors', every NPA will have certain amount in default, because of which it is in the current status. Recovery of this identifiable Critical Amount under default, would upgrade the NPA to performing status in all cases except on NPAs under nursing programme. Further the recovery of Amount Due in such accounts would ensure that the accounts remain in standard category during such period. The empirical relationship between the presence of Critical Amount under Default and Critical Amount Due in a standard account (both existing standard as well as upgraded NPAs will show it as a potential NPA or a regular standard account respectively. The recovery of Critical Amount Due in such accounts would ensure continuance of borrowers accounts in standard category till next classification.

"Identification of 'Critical Factors' account wise and objective monitoring at all levels can effectively contain menace of NPAs in the Banks".<sup>19</sup>

#### **6.11.4 Slippage Management**

"What a banker really needs now is not "NPA management" but Slippage Management before the asset becomes NPA. The statistics showing the position of Performing Asset (PA) of a bank or branch may not be correct because within this "performing category" is a hidden portion showing "incipient problems" which may turn out to be non-performing if not properly and timely attended to. These "incipient" assets are in a state of flux showing varying degrees of prospective non-performance. Precisely because of this, RBI has asked the banks to make a provision of 0.25% even on outstanding of the so-called "Standard Assets".<sup>20</sup>

Any performing asset does not turn in to non-performing overnight. The "performing asset" passes through a relatively lengthier period of 90 days, after becoming due but before slipping down to the dangerous red band of non-performing asset. During this journey, every asset is giving out certain signals forewarning the banker that something bad is about to happen. Depending up on the type of credit facility and nature of business these distress signal may look like:

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<sup>19</sup> IBA Bulletin, April 1998

<sup>20</sup> IBA Bulletin, September 2000.

- Non-payment of the very first installment in case of term loans.
- Non-submission of stock statements in time.
- Cheques drawn on the account are bouncing.
- Credits into the cash credit account are not sufficient to meet the debits in the account.
- The over due bill is lying unpaid.
- Installments are irregular.
- Amount paid is not fully covering the principal and interest debited.
- No regular operations in the cash credit account
- Bank has been information that party is not doing the business.
- Post sanction inspection report speaks of diversion and improper utilization.
- There has been a natural calamity in the borrower's place.

Once these signals start to come in, the banker is supposed to act immediately. There is no point in waiting with the feeling that there are few more months and things may turn all right before that. Any symptom unattended would lead to major complications. Steps taken at the initial stage itself would help to keep the accounts performing and the costly slippage would never happen. The NPA reduction technique like, rephasing and nursing may even be attempted while the accounts are still in the performing basket by continuous monitoring of the individual asset. This type of constant and continuous surveillance requires co-operation and attention from all concerned in a branch. Any one shot measure like "recovery camps" can at best be of supplementary nature and may never is a permanent solution.

#### **6.11.5 Measures of reducing NPAs**

1. Compromise with borrowers: A compromise may be called a negotiated settlement in which the borrower agrees to pay a certain amount to the banker after getting certain concessions
2. Calling up the Advance and Filling of Civil suits : It is possible to revive a unit or enter into a reasonable settlement with the borrower, it is better to recall the advance at an early stage instead of waiting for a long time which may result in deterioration of the security available. Further, if it is



not possible to sell the security without obtaining court's order, Civil suits may be filed against such borrowers who are not likely to come to a reasonable settlement.

3. Approaching Debts Recovery Tribunals : The Debts Recovery Tribunals is being set up in various States and an Appellate Tribunal has also been set up at Mumbai to hear the appeals against the decisions of the Debts Recovery Tribunals.
4. Recovery of Advance given Under Government Sponsored Programmes : Banks can take advantage of the legislation enacted by State Government for speedy recovery of bank's overdue. They can promptly file cases against willful defaulters with the concerned authorities of the State Government.
5. Lok Adalats: It deals with the legal recourses, where continuous efforts and intensive follow up are required on the part of the Bank Officials. Officers must be identified for executing the work in connection with Lok Adalats.
6. Establishment of Asset Recovery Branches: Some banks have opened Asset Recovery Branches at critical centers for undertaking recovery. Bad and doubtful debts of various existing branches have been transferred to the Recovery Branches, which may have trained staff with necessary background for recovery. The Special Recovery Branches may give undivided attention to recovery of dues. Establishment of such specialized branches may help in reducing NPAs.
7. Write off the Outstanding :If all the efforts for recovery fail, banks may have to write off the advances. Such write off should be done after exhausting all other remedies. When chances of recovery are negligible, some banks prefer to reduce its income and save tax. In such cases, banks should continue to make efforts for recovery even after writing off the advance.

#### **6.12 GROSS AND NET NPAS OF PUBLIC SECTOR BANKS:**

Non-performing Advances are non-yielding advances and they bring down the overall yield. Besides, it affects the bottom line, as provisions will have to be made as per

prudential norms. It would therefore be necessary for the banks to take effective measures to reduce their NPA to the maximum possible extent. Steps should also be taken to upgrade the quality of such advances for performing status so that income on such assets can be transferred to profit and loss account and also to reduce provisioning requirements.

Following table gives the Gross and Net NPAs of Public sector Banks in India and the proportion of NPA with total advances and assets.

**Table No. 6.6 Gross and Net NPAs of Public Sector Banks (1993 to 2004)**

(Rs. in crores)

YEAR	GROSS NPA (Rs.)	PERCENT TO GROSS ADVANCE	PERCENT TO TOTAL ASSET	NET NPA (Rs.)	PERCENT TO NET ADVANCE	PERCENT TO TOTAL ASSETS
1993	39253	23.2	11.80	NA	NA	NA
1994	41041	24.8	10.80	NA	NA	NA
1995	38385	19.5	8.70	17657	10.7	4.0
1996	41061	18.0	8.20	18297	8.9	3.6
1997	43557	17.8	7.80	20285	9.2	3.6
1998	45653	16.0	7.00	21232	8.2	3.3
1999	51710	15.9	6.70	24211	8.1	3.1
2000	53033	14.0	6.00	26187	7.4	2.9
2001	54672	12.4	5.30	27977	6.7	2.7
2002	56473	11.1	4.90	27958	5.8	2.4
2003	54086	9.40	4.20	24963	4.5	1.9

**Source:** Reports on trend and Progress of Banking in India 1997-98 and 2002-2003

The table no. 6.6 shows the gross and net non-performing assets of public sector banks from 1993 to 2003. The table also reveals the percentage of gross and net NPA to gross and net advances as well as to total assets. The percentage of gross NPA to gross advances is reducing at a steady rate since last ten years, however there is an increase in the rate of reduction since 2003. The percentage of gross NPA to total assets is also reducing but not at the same pace as in case of gross advances. Similarly, the percentage of net NPA to net advances and total assets is also reducing, which is a good sign for Indian public sector banks.

**Table No. 6.7 Gross NPA as Proportion to Total Advances of urban co-operative banks in India (1995 to 2004)**

YEAR	NO. OF BANKS REPORTED	NPA AS PROPORTION TO TOTAL ADVANCE	YEAR	NO. OF BANKS REPORTED	NPA AS PROPORTION TO TOTAL ADVANCE
1995	832	13.9	2000	1748	12.2
1996	1161	12.9	2001	1942	16.1
1997	1363	13.3	2002	1937	21.9
1998	1379	11.0	2003	1941	19.0
1999	1474	11.7	2004	1926	17.6

**Source:** Report on trend and Progress of Banking in India 1997-98 and 2003-2004

The table no. 6.7 gives the details of NPA as percentage to total advances for UCBs in India from the year 1995 to 2004. The proportion of non-performing assets to total advances do not show any pattern because for the first five years from 1995 to 1999 even though the number of UCBs are increasing the proportion of NPA to total advances is decreasing but since last five years i.e. from the year 2000 to 2004 the number of UCBs are increasing or decreasing but the proportion of NPA to total advances has increased in the year 2000, 2001 and 2002 and shows a decline in the last two years.

### 6.13 COMPARISON OF NPA BETWEEN PSBS AND UCBS:

The norms of identifying non-performing are now more or less equally applicable to urban co-operative banks. So a comparison can be worked out to find out the difference between the NPA as a proportion to total advances in case of public sector banks and urban co-operative banks in India.

**Table No. 6.8 Comparison of NPA as Proportion to Total Advances between PSBs and UCBs (1995 to 2004)**

YEAR	NPA AS PROPORTION TO TOTAL ADVANCE (PUBLIC SECTOR BANKS)	NPA AS PROPORTION TO TOTAL ADVANCE (URBAN CO-OP. BANKS)
1995	19.5	13.9
1996	18.0	12.9
1997	17.8	13.3
1998	16.0	11.0
1999	15.9	11.7
2000	14.0	12.2
2001	12.4	16.1
2002	11.1	21.9
2003	9.40	19.0
2004	8.25	17.6

**Source:** Report on trend and Progress of Banking in India 1997-98 and 2003-2004

The table no. 6.8 shows the comparison of NPA as proportion to total advances between public sector banks (PSBs) and urban co-operative banks (UCBs) in India. In case of PSBs the proportion of NPA to total advances is continuously reducing over the period of study from 1995 to 2004. But in case of UCBs this proportion has reduced till the year 1998, than started increasing in the year 2000 and 2002 and since last two years it is declining. Such a comparison is not viable as the number of banks and amount of advances differs however, the reduction in the proportion of NPA to total advances in case of UCBs in India is good.

## 6.14 NPA OF SELECTED UCBS IN GUJARAT:

The following table no. 6.9 provides items that are practically known as NPA in case of urban cooperative banks as per their annual reports published at the end of every financial year.

**Table No. 6.9 Averaged Reserves for bad and doubtful debts (NPA) of Selected UCBs in Gujarat**

(Rs. in lakhs)											
NAME OF BANK	94-95	95-96	96-97	97-98	98-99	99-2000	2000-01	2001-02	2002-03	2003-04	AVG.
Anyonya Co-op. Bank	247.60	286.58	335.87	366.47	478.85	698.42	943.95	1116.48	950.44	741.90	616.66
Bhavnagar Nagrik Bank	295.50	370.00	475.50	617.00	782.50	935	1045.30	1525.60	2182.80	2612.50	1084.17
Dahod Urban Bank	97.75	104.50	125.00	200	279.38	326.88	380.00	446.08	587.00	730.93	327.75
Godhara City Co-op Bank	28.40	30.41	36.66	47.56	64.25	81.47	99.78	122.72	176.48	238.76	92.65
Mehsana Urban Bank	32.81	69.91	130.11	197.83	270.44	368.75	491.36	830.05	2356.74	3962.25	871.03
Sardar Bhiladwala Bank	326.82	375.30	449.78	568.46	717.29	845.23	974.58	1271.95	1662.04	2253.38	944.48
The Kalupur Bank	919.61	1067.83	1340.29	1742.26	1954.60	3287.46	4567.54	5281.92	6566.26	7433.17	3416.09
The Modasa Nagrik Bank	14.63	17.26	20.67	25.25	39.16	52.98	57.99	63.08	70.10	78.50	43.96
The Rajkot Nagrik Bank	3040.76	3678.26	4553.26	5079.13	5180	5280	5280.00	7640.00	11151.02	12840.00	6372.24
The Surat People's Bank	1575.00	1875.00	2325.00	2875.00	3487.50	4262.5	5150.00	6350.00	8175.00	9525.00	4560.00

**Source:** Annual Reports of respective urban co-operative bank

As per the table no. 6.9 the averaged reserves for bad and doubtful the debt of the Rajkot nagrik sahakari bank is the highest followed by the Surat people's co-operative bank and Kalupur co-operative bank. It is interesting to note that the amount of NPA is increasing in all UCBs under study but in case of Anyonya co-operative bank one of the oldest urban co-operative bank in Asia, it is deducing since last two years. In other UCBs also the pace of increase has decline.

**Table No. 6.10 Provision of Non-Performing Assets for selected UCBs in Gujarat**

(Rs. in lakhs)											
NAME OF BANK	94-95	95-96	96-97	97-98	98-99	99-2000	2000-01	2001-02	2002-03	2003-04	AVG
Anyonya Co-op. Bank	308.80	380.52	467.64	534.34	698.70	1036.05	1564.63	2185.14	2519.20	2894.59	1258.96
Bhavnagar Nagrik Bank	444.00	551.00	683.00	834.50	1002.50	1155.00	1265.30	1635.60	2182.80	2612.50	1236.62
Dahod Urban Bank	143.71	155.52	187.64	283.31	395.97	486.29	564.58	636.58	796.01	962.20	461.18
Godhara City Co-op Bank	50.22	54.34	60.92	81.40	103.65	124.34	152.51	210.03	277.97	315.33	143.07
Mehsana Urban Bank	63.90	108.37	149.34	197.83	274.94	377.74	500.35	1152.01	2958.25	4506.67	1028.94
Sardar Bhiladwala Bank	585.64	675.52	708.01	775.63	1010.33	1294.10	1643.86	2419.56	3100.36	4450.94	1666.40
The Kalupur Bank	1938.33	2141.95	2094.78	2356.41	2763.35	4096.21	5436.29	8878.50	14494.98	19058.95	6325.98
The Modasa Nagrik Bank	14.63	17.26	20.67	25.25	39.16	52.98	57.99	63.08	70.10	96.97	45.81
The Rajkot Nagrik Bank	5435.23	6694.89	8370.60	10327.50	12223.59	13943.61	16034.83	21621.64	28308.02	32961.41	15592.13
The Surat People's Bank	1941.37	2290.30	2799.51	3448.30	4232.79	5135.75	6144.04	7502.66	9459.12	10883.08	5383.69

**Source:** Annual Reports of respective urban co-operative bank

In table no. 6.10 of provisions of NPA since the Rajkot nagrik sahakari bank, Surat people.s co-operative bank and Kalupur co-operative bank have some of the high NPA figures so these banks are making big provisions to overcome the problems of NPA. Anyonya co-operative bank has made enough efforts to counter the NPA, as it is clearly visible from the amount of provision against the figures of NPA.

Even though the picture of NPA is not so gloomy of urban co-operative banks in Gujarat However the problems face by these banks in the recovery of their bad loans is of great concern. A comprehensive remedial legislation is a crucial need, which is to critically examine so as to remove the several difficulties, in order to serve the public policy objective.

The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 is passed to regulate securitisation and reconstruction of financial assets and enforcement of security interest and for matters connected there with of incidental thereto. Immediately after the enactment of the Securitisation Act, the Government has vastly expended the ambit of the law by bringing Co-operative banks with in its folds. This Act has removed the main shortcomings of DRTs.

#### **6.15 ROLE OF DEBTS RECOVERY TRIBUNALS:**

The level of NPAs in the UCBs is relatively high in 2001-2002 as compare to public sector banks in India and as per the International standard. NPAs nullify current profit through provisioning requirements, reduction of interest income and limiting the recycling of funds resulting in mismatch in asset-liability requiring higher provisioning requirements affecting the capacity of the banks to increase good quality risk assets in future. The Government of India established Debts Recovery Tribunals (DRTs) to overcome the drawbacks and delay in the courts and Board for Financial and Industrial Reconstruction (BIFR). But DRTs also not fully succeed in minimizing the NPAs. In this situation the Govt. of India in 2002 passed an Act known as The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002.

“To match the recovery of loan given by the banks with the payments of liabilities on the date of maturity or to meet the liquidity need, Securitisation can help to overcome such

difficulty. It is one of the best tools for Asset-Liability Management in Urban co-operative banks”<sup>21</sup>

#### **6.16 MEANING OF SECURITISATION:**

“It is process of converting claims to debts as marketable commodity. This process involve identification of number of homogenous loan accounts with the same maturity date, interest rate etc., out of the portfolio of advances, pooling and repacking them and selling them as marketable securities. Securitisation is a way –backed financing as distinguished from user-base financing and if the receivables are backed by mortgage, then the securities are called mortgaged back securities”.<sup>22</sup>

The existing NPA realization system of huge dues by sale of security takes a long time due to the heavy backlog of cases pending in courts and every decision of a court can be frustrated by numerous appeals that a defaulting borrower happened to be a medium or large industrial unit and default in repayment to its bank, the unit could be declared as sick by the Board for Financial and Industrial Reconstruction (BIFR). Then after, nobody can sue the unit without the specific permission from the BIFR. Thus, banks felt totally helpless in even realizing the value of security given to them.

These Debts Recovery Appellate tribunals established to deal exclusively with the bad loans of banks. DRTs were expected to provide a fast track mechanism for recovery of dues by banks. However, in reality, DRTs did not afford sufficient support to banks in their recovery effort due to the following reasons:

- The DRTs cannot take up the bigger cases, which come under the purview of BIFR.
- In many cases the judgment will take several months.
- The sale of property can be made only through court appointed officials, which adds delay.

The Securitisation Act however, vested enormous powers in the banks as:

- Now, the banks can sell the security and appropriate the sale proceeds to settle the dues.
- Banks having 75% of the dues owned by the borrower can collectively proceed as follows in the event of the account becoming NPA.

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<sup>21</sup> IBA Bulletin, March 2003, p166

<sup>22</sup> S.O Junare and D M Bavarva, Securitisation and Reconstruction of financial Assets and Enforcement of Security Interest Act – 2002-Applicable to Co-operative Banks, NICM, Gandhinagar, p 11

- Issue notice of default to borrower asking him to repay the due within 60 days of the notice.
- Take over the management of the borrowing concern.
- Appoint any person to manage the concern.
- It is also clearly mentioned that if any case is pending before the BIFR, the proceeding can be settled by banks having 75% share in the dues and have taken any steps to recover the dues under the provisions of the Act.
- The banks can also sell the security to a Securitisation or Asset Reconstruction Company, established under the provisions of the Act

However, in case of co-operative banks the provisions of the Securitisation Act are not applicable to

- Pledged or hypothecated property
- Loans of less than Rs. 1 lakhs
- Loans taken on agricultural land.
- To the dues of any unpaid seller.
- To the loan taken for purchase of vehicles
- To a loan where the amount of loan and the amount of interest due there on is less than 20% of the total amount to be recovered

#### **6.16.1 Shortcoming of the policy:**

Even though the Act provides enormous power to banks, there are some legal and practical issues in exercising them.

Second charge on the assets- For example the banks have a 75% share in the total borrowings of a company, but have a second charge of immovable property, can they sell the property?

Working Capital Loans:- Banks would be at a disadvantage compared to the financial institutions as the bulk of bank advances is for working capital and secured by a charge on the current assets of borrower, comprising stocks and receivables. Generally, when the unit is in financial distress, the value of these assets would diminish fast and/or the unit will sell them to meet its day-to-day expenses. Therefore, when the lending bank wants to actually seize and sell the security of current assets, it would find that it could get very little cash form the sale.

Hypothecation of assets:- The Act recognizes, for the first time, hypothecation as a charge and has vested full right of sale even to hypothecate bank without the court intervention. This is difficult and may be challenged.

Provision to borrower: The act gives special provisions to borrower, who is aggrieved by the action of banks in seizing and selling the security can prefer an appeal to DRT and then on to an Appellate Tribunal. When he prefers an appeal to DRT, he has to deposit 75% of the disputed amount with DRT. This deposit can be waived or reduced by DRT. Further, if the DRT decides against the banks, the latter has to duly restore the asset to the borrower and also pay some compensation

“The Bankers felt – It is a long overdue legislation to protect the interest of banks. While the Industry captain said that, the new ordinance on recovery of bank loans is more draconian than the dreaded POTA”.<sup>23</sup>

Another aspect without which the discussion of risk management is incomplete is Capital Adequacy Norms.

#### **6.17 CAPITAL ADEQUACY NORMS:**

RBI introduced capital adequacy norms on the recommendations of Narsimham committee. The committee has adopted weighted risk approach, which assigns weight to different assets based up on risk attached to such assets. The product of the calculation is called Risk Weighted Asset (RWA). Capital Adequacy Ratio is the prescribed minimum proportion of such risk weighted assets.

$$\text{CAR} = \frac{\text{Capital}}{\text{Total Risk Weighted Assets}} \times 100$$

The Basel committee has decided capital in two tiers:

**Tier I –**

- Paid capital
- Statutory reserve
- Share premium
- Capital reserve (surplus on sale of assets)
- Other disclosed reserve (revenue reserve)

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<sup>23</sup> Saumitra Chaudhry, Some issues of growth of and profitability in Indian Public sector Banks, Economic and Political weekly, June 2002, p 2155-2162



Less- Investments in subsidiaries

Intangible assets and losses

**Tier II –** Undisclosed reserves and cumulative perpetual  
Preference shares  
Revenue reserves (at discount)  
Capital reserve (excess provisions on investments)  
General provisions and loss reserves  
Hybrid debt capital instruments  
Subordinated debts (at discount)

The weight allotted to each of the assets are furnished below:

<b>Funded risk assets</b>	<b>% Weight</b>
Cash, balance with RBI, balance with other banks, money at call and short notice and investments in Govt. and other trustee securities	0
Claim on commercial banks such as certificates of deposits etc.	0
Other investments	100
Loan guaranteed by Govt. of India	0
Loan guaranteed by State Govt.	0
Loan guaranteed to public sector undertakings of GOI	100
Loan guaranteed to public sector undertakings of State Govt.	100
Others advances	100
Premises, furniture and fixtures	100
Other assets	100

A definite time frame has been worked out for introduction of Capital to Risk-Weighted Assets Ratio (CRAR) for UCBs. The time schedule is as under:

<b>Date</b>	<b>CRAR for Scheduled UCBs</b>	<b>CRAR for Non-Scheduled UCBs</b>
March 31, 2002	8 per cent	6 per cent
March 31, 2003	9 per cent	7 per cent
March 31, 2004	As applicable for commercial banks	9 per cent
March 31, 2005	As applicable for commercial banks	As applicable for commercial banks

#### **6.17.1 Impact of Capital adequacy norms**

- It results in increase in the capital stock of the banking system over a period of time. It was gradually increased from 4% to 8% at present.
- All banks put in place the machinery for risk management. It has created a new sense of awareness about importance of risk management banks.
- The level of NPA, which were earlier, not recognized by banks explicitly, is now being required to reveal in the balance sheet. Further, it has emerged as the yardstick of performance of individual banks and its viability.