CHAPTER – III

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RISK MANAGEMENT IN COMMERCIAL BANKS

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Introduction:

The primary activity of financial inter-mediation for a commercial bank is borrowing and lending money. Basically there are two parameters that determine the cost of these funds to banks, viz. the period for which the funds are made available & the creditworthiness of the person/institution using these funds. It is a established fact that the pricing of the long-term funds is generally higher than the short-term funds and a high interest rate is paid by high risk borrowers. Commercial banks too, have to take liquidity risk (borrowing short and lending long) and/or credit risk to earn margins & spreads.

However, in the process of earning the same, commercial banks cannot afford to take higher risks beyond a certain tolerance level, as after which the risk becomes totally unmanageable. To remain within the manageable risk levels, prudent bank decision making is necessary for formulating both lending as well as deposits mobilisation & bank borrowing strategies.

Risks in Commercial Banking:

In these present days of deregulation and management autonomy, the operating environment of a commercial bank is considered very volatile and hence is more prone to risks. In the banking industry risks are result of many diverse activities, undertaken at many locations/branches, and by numerous people with delegated powers. Based on the origin and their nature, risks in banking business can be classified into various categories. The most prominent financial risks to which banks are exposed to are Liquidity risk, Interest rate risk, Credit risk, Foreign Exchange risk & Contingency risk .

Liquidity Risk;

The mismatch in the maturity patterns of the assets and liabilities lead to the liquidity risk. A commercial bank runs high liquidity risk when it is not in a position to impart required liquidity into its system. It is customary to describe liquidity risk as a deficit situation where there is possibility of a bank not having adequate cash to meet customers demands at the counter or in bank clearings. As against this, surplus cash is also a problem to reckon with, since the bank would have already been burdened with the interest expense arising due to the cost of funds, while there may be a lag in the earnings due to unutilised funds. Thus, unutilised funds deployed at low rates or kept idle in the vault contribute to negative returns.

Interest Rate Risk;

This risk arises when the income of a bank is sensitive to the interest rate fluctuations.

Credit Risk;

Credit risk of a bank can be described as the possibility of a default in the repayment obligation by the person borrowing the funds. Delayed payment is also a facet of default risk.

Foreign Exchange Risk/Currency Risk;

The unexpected fluctuations in the exchange rates gives rise to foreign exchange risk. This type of risk becomes more relevant when the balance sheet of a commercial bank consists of multi-currency assets and liabilities.

Contingency Risk;

Off-balance sheet items (OBSI) such as guarantees, letters of credit, underwriting commitments, etc. give rise to the contingency risk .

One important feature of the various bank risks presented above is that there is a definite linkage between all of them. Let us take a practical illustration that if the bank charges its borrowers a floating rate interest, in cases of increasing interest rate scenario, the bank's interest rate risk will be lower and enhances the payment obligation of the borrower. However, other things remaining constant, the default risk increases. If the borrower is not able to bear the burden of the rising rates, which may lead to default in repayment and therefore give rise to credit risk for the bank. Further, the credit risk itself is closely associated with the forex risk in the case of borrowers whose earning are extremely influenced by exchange rates.[1]

After the identification of different types of risks, let us now identify the alternate approaches available for managing/reducing the risks in banking business. The approaches narrated below are not confined to the management of the above mentioned risks alone.

Avoidance : When a commercial bank refrains itself from not holding an asset/liability which is exposed to risk it is termed as avoidance. For eg. A commercial bank which does not want exchange risk can avoid it by not entering into forex transactions at all, However, this method is more of an exception than a rule since because no business can survive without assets and liabilities.

Loss Control: In case of the risks that are not avoided loss control measures are used. The objective of these measures is either to prevent a loss or to reduce the probability of loss. For example, introduction of systems and procedures, internal inspections & audit, developing strong IT platform for all banking operations & services.

Separation: Here, the asset is distributed into different locations & therefore, the scope of loss is reduced substantially. To say alternately, not to keep all eggs in one basket. This of course, would lead to an increase in the number of risk centers, but the risk of loss is minimised & kept within managerial control & scope. Last, but not the least;

Combination: When financial assets are distributed over a number of issuers instead of blocking them with a single issuer. Thus the impact of risk of default is minimised to a large extent.

Risk Management:

It is world over a common fact that a prudent banker should know to take better risk rather than a higher risk or no risk in banking business. The risk management enables a commercial bank to bring its risk level to a manageable proportion without casting any negative impact on its income or profit. In other words, it enables a bank to take the required level of exposures in order to meet its profit targets. There must also be a proper planning for a balancing act between the risk level and profits. Risk management consists of identifying the risks & controlling or minimising them, as risks cannot be eliminated totally. Controlling risks therefore means keeping the risks at an acceptable level. This level differs from bank to bank depending on its own risk exposures & experiences.

Asset-Liability Management:

Importance:

As discussed earlier, ALM basically focuses on the strategic balance sheet management involving risks caused by changes in the interest rates, exchange rates, the liquidity position of the bank etc. Managing these varied risks is the primary objective of any ALM Policy. The significance of ALM to the banking industry can be highlighted from the major changes that have occurred in recent years in the compositions of assets (application of funds) and liabilities (sources of funds) of commercial banks.

On the economic front in India in the post-reform era, we have witnessed a rapid growth in the industrial and the services sector, which has stimulated the growth in complex, competitive & varied banking & business finance activities. The rise in the demand for funds has triggered a rapid shift in the features of the sources and application of funds of commercial banks. Historically, commercial banks were using administered rates provided by RBI for pricing their assets and liabilities. In fact before the introduction of FSR more than two-third of commercial bank portfolio was managed by RBI alone by prescribing lending targets and reserve prescriptions. Bank advances under Commerce & Industry was also deployed at more or less unified rate of interest by commercial banks in India. But in the current deregulated environment, banks have witnessed narrowing down of the margins & spread. This laissez faire policy of regulating authority has not only led to the introduction of discriminate pricing policies of various bank products and services, but the need to match the maturity patterns of the assets and liabilities is also incresingly being felt by banks in India. The main reasons for the growing significance of ALM can be attributed to the factors like, Innovations in the

Financial Products, Market Volatility, Stringent Regulatory Environment, and last but not the least, the Management Recognition.

One of the main reason for the growing importance of ALM is the rapid innovations taking place in the asset as well as liability products of the commercial banks to provide convenience, better & faster services to institutional & individual customers. Following example will clearly explain the underlying significance of risk management/ ALM in banks. The flexibilities introduced in the term deposit called flexi-deposit facility by banks in recent years. Earlier term depositor in need of funds before maturity of deposit was allowed by the banks by pre mature withdrawal of entire deposit balance or a loan against it. Banks were charging penalty on the entire amount of deposit. This penalty by way of paying 1 to 2 percent less than contractual rate served as discouragement to depositor as well as reduced the risk for the bank. Now, under the flexi – deposit facility term deposit of the depositor is held in the multiples of say Rs. 100 or Rs. 1000 & the depositors are also allowed to premature withdraw in the same denominations instead of full deposit amount and earn the contractual rate on the remaining balances. This of course increases the risk for the bank also, as the bank has to constantly match the mismatch in the asset liability may be at higher interest rates as bank has to match sudden outflow of funds.

Further, recent years have seen introduction of liberalisation policies in various countries, and host of nations globalizing their banking & business finance operations and closely regulated markets are giving way to market-driven economies. This liberalisation, globalisation & deregulation, has entirely changed the dynamics of the financial markets, which is reflected in competitive interest rate structures, the market driven exchange rates and price levels. For all financial intermediaries dealing in money and near money products & services, rate fluctuations invariably affect the market value, yields/costs of the assets/liabilities that further affect their Net Interest Income (NII).

These aspects have forced the bank managements to have a serious thought about the management of the assets and liabilities in the new growing competitive environment. The managements have realized that it is just not sufficient to have a very good franchise for credit disbursement, nor is it enough to have just a very good retail deposit base. In addition to these, a bank should be in a position to relate and link the asset side with the liability side. And this calls for efficient asset-liability management.

In sum, there is increasing awareness in the top bank management that banking is now a different game altogether since all the rules of the game have changed.

Purpose of ALM:

As stated earlier that ALM is only an approach & not a precise technique. There are macro- and micro-level objectives of ALM, out of which the micro-level objectives actually help in attaining the macro-level objectives. At the macro-level, ALM plays a significant role in formulation of critical business policies, efficient allocation of capital and designing of products with appropriate interest rate strategies. And at the micro-level, the objective functions of the ALM are two-fold viz.

a) Achieving profitability through interest rate matching and,

b) Maintaining liquidity by means of maturity matching.

Interest rate matching basically aims to maintain spreads by ensuring that the deployment of liabilities will be at a rate higher than the costs. Similarly, grouping the assets/liabilities based on their maturing profiles ensures liquidity. The future financing requirements are then assessed after identifying the gaps in maturity profiles. However, It is practically very difficult to maintain profitability by matching interest rates and ensuring liquidity by matching the maturity levels. Mr. T.R. Ravikumar here has done an extensive research on the subject and has developed a model as reproduced as an illustration to present the purpose of ALM. Following Tables 3.1 & 3.2 explain the process involved in interest rate matching and maturity matching respectively.[2]

Table 3.1

Interest Rate Matching

(Rs. Crore)

Table				Table Rearranged				
Liabilities		Assets		Liabilities		Assets		Spread (%)
Amt.	Rate (%)	Amt.	Rate (%)	Amt.	Rate (%)	Amt.	Rate (%)	
1	2	3	4	5	6	7	8	9
15	0	10	0	10	0	10	0	0
25	5	20	12	5	0	5	12	12
30	12	50	15	15	5	15	12	7
30	13	20	18	10	5	10	15	10
				30	12	30	15	3
				10	13	10	15	2
				20	13	20	18	5
100	8.75*	100	13.5*	100	8.75*	100	13.5*	4.75*

* Average cost/return on liabilities/assets

Table 3.1 shows how a proper deployment (rearrangement) of liabilities can ensure positive spreads. These spreads can, however, be attained if the interest rate movements are known with accuracy, and the forecasts may fall close to actual movements.

Table 3.2

Maturity Matching

(Rs. Crore)

(period in months)

Table			Table Rearranged			
Maturing within (months) 1	Liabilities 2	Assets 3	Liabilities 4	Assets 5	Gap 6	Cumulative Gap 7
1	10	15	10	15	-5	-5
3	5	10	5	10	-5	-10
6	8	5	8	5	+3	-7
12	4	10	4	10	-6	-13
24	45	30	45	30	+15	+2
36	20	10	20	10	+10	+12
>36	8	20	8	20	-12	0
	100	100	100	100		

Table 3.2 helps in determining the gap that exists by using forecasted cash flows, both inflows and outflows. It further forecasts the surplus/deficit fund position and thereby enables better financing plan. Maturity matching however, is possible if the financial requirements are forecasted accurately.

Both these approaches help the management to develop an understanding of the balance sheet structure. However, it may be noted that risk management approaches for ALM cannot be unidimensional since the risks are inter-linked & need to be managed collectively in a cohesive manner. As discussed earlier an effective ALM technique aims to manage the volume, mix, maturity, rate sensitivity, quality and liquidity of the assets and liabilities as a whole so as to attain a predetermined acceptable risk/reward ratio. The basic aim of ALM, is to improve the asset quality, quantify the risks associated with the assets and liabilities and further manage them.

ALM basically uses several risk management techniques to manage different risks associated with banking business which are covered separately in following chapters However the parameter that is selected for the purpose of stabilizing will also indicate the target account that needs to be managed. The most common target accounts in ALM of banks are:

Net Interest Income (NII): The impact of volatility on the short-term profits is measured by NII. Therefore a bank willing to stabilize its short-term profits, will have to minimize the fluctuations in the NII.[3]

Market Value of Equity (MVE): It represents the long-term profits of the bank. The bank will have to minimize adverse movement in this value due to rate fluctuations. The target account will thus be MVE. In the case of unlisted banks, the difference between the market value of assets and liabilities will be the target account.[4]

Economic Equity Ratio(EER): The ratio of the shareholders funds to the total assets measures the shifts in the ratio of owned funds to total funds. This in fact assesses the sustenance capacity of the bank. Stabilizing this account will generally come as a statutory requirement.[5]

While the bank can target any one account, it is, however, essential to observe the impact on the other accounts also. While both NII and MVE may be affected favourably/adversely, there may also be instances where one may be affected favourably while the other is affected adversely. Considering these different situations, the bank may sometimes lay exclusive focus on the short-term profits and take decisions that have an adverse impact on the long-term profits of the bank, and *vice versa.*[6]

With this basic framework on risks, risk management and asset-liability management, a detailed discussion on the various risks and the techniques that can possibly be used to manage the same is presented in the following chapters.

Conclusion:

Over a period of time risk management in commercial banks is attracting more and more attention of the top managements, With the evolution of innovative products in banking the perception of risk is also increasing, compelling the banks to incorporate stringent risk management procedures into its policies & processes.

Refrences:

(1) www. contingencyanalysis.com

(2), (5) & (6) T.R. Ravikumar (1999) -Asset liability Management -

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(3) www. almprofessional.com

(4) www. riskmetrics.com