CHAPTER FOUR

REGULATORY GUIDELINES ON ALM BY RBI

The advent of liberalisation and globalisation has seen lot of changes in the focus of Reserve Bank of India (RBI) as a regulator of the banking industry. The focus has clearly shifted from micro monitoring to macro management. The focus of inspection is shifting from transaction-based exercise to risk-based supervision.

4.1 REGULATORY MEASURES BY RBI

Reserve Bank of India (RBI) had brought out guidelines on Assets Liability Management in February, 1999 (vide its circular no. DBOD. BP.BC/ 8/ 21.04.098/ 99 dated 10.02.1999)\(^1\). This was followed by broad guidelines on Risk Management in Banks in October 1999, covering contours of management of credit, liquidity, interest rate, foreign currency and operational risks\(^2\). The objective was to establish appropriate Risk Management Architecture in Indian banks for a dynamic strategic risk management, in the light of liberalisation in Indian financial markets and its growing integration with external markets. The need was felt for structured and comprehensive measures.

4.2 RBI’ GUIDELINES ON ASSET LIABILITY MANAGEMENT SYSTEM IN BANKS (FEBRUARY, 1999)

RBI in its guidelines on ALM System in Banks, has laid emphasis for addressing major risks of the banks in a structured manner by upgrading their risk management and adopting a more comprehensive ALM practices than has been done hitherto\(^1\). This note has laid down broad guidelines in respect of liquidity
and interest rate risks management systems in banks. It has identified three pillars of ALM:

- **ALM Information Systems.** It encompasses: a) management information system and b) information availability, accuracy, adequacy and expediency.

ALM has to be supported by a management philosophy, which clearly specifies the risk policies and tolerance limits. The ALM framework needs to build on sound methodology and necessary information system.

- **ALM Organisation.** The ALM organization envisages: a) structure and responsibilities and b) level of top management involvement.

The ALM organisation should address: a) successful implementation of risk management process, b) adherence to the limits set by the board as well as deciding of the business strategy of the bank in tune with the decided risk management objectives, through ALCO set-up and c) the responsibilities of ALM support groups, towards analysis, monitoring and reporting of the risk profiles to the ALCO.

*Each bank has been called upon to decide on the role of its ALCO, its responsibilities and the decisions to be taken by it. The size of ALCO would depend on the size cf each institution, business mix and organizational complexity.*

- **ALM Process.** The ALM process would envisage defining the risk parameters, identification of risks, risks measurement, risk management and framing risk policies and setting tolerance levels.

The scope of ALM function extends to management of market risks, including liquidity risk management, funding and capital planning and profit planning and growth, etc.
4.2.1 LIQUIDITY RISK MANAGEMENT

Measuring and managing liquidity needs are vital for effective operation of commercial banks. For measuring and managing net funding requirements, the use of a maturity ladder and calculation of cumulative surplus or deficit of funds at selected maturity dates is adopted as a standard tool. A format for structural liquidity has been prescribed. Within each time bucket there could be mismatches depending on cash inflows and outflows. While the mismatches up to one year would be relevant since these provide early warning signals of impending liquidity problems, the main focus should be on the short-term mismatches viz. 1-14 days and 15-28 days.

The statement of structural liquidity may be prepared by placing all cash inflows and outflows in the maturity ladder according to the expected timing of cash flows.

Banks may estimate their short term liquidity profiles (1-90 days) on the basis of business projections and other commitments for planning purposes. An indicative format for estimating short-term dynamic liquidity has been prescribed by RBI.

4.2.2 CURRENCY RISK MANAGEMENT

Large cross border flows together with the volatility have rendered the bank's balance sheets vulnerable to exchange rate movements. Dealing in different currencies brings opportunities as also risks. Mismatched currency position besides exposing the balance sheet to movements in exchange rate also exposes it to country risk and settlement risk.
Presently, the banks are also free to set gap limits with RBI’s approval but are required to adopt Value at Risk approach to measure the risk associated with forward exposures.

4.2.3 INTEREST RATE RISK MANAGEMENT

The immediate impact of changes in interest rates is on bank’s earnings i.e. reported profits, by changing its net interest income. A long term impact of changing interest rates is on bank’s market value of equity or net worth, as the economic value of bank’s assets, liabilities and off-balance sheet positions get affected due to variation in market interest rates.

In the light of poor Management Information System (MIS), the traditional gap analysis is considered as a suitable method to measure the interest rate risk in the first instance. However, RBI intends to move over to the modern techniques of interest rate risk measurement like duration gap analysis, simulation and value at risk over time, while the banks acquire sufficient expertise and develop sophisticated MIS.

The gap report need to be generated by grouping rate sensitive liabilities, assets and off-balance sheet positions into time buckets according to residual maturity or next repricing period. The method of classifying items of rates sensitive assets and liabilities and off-balance sheet items have been prescribed. Reporting format for interest rate sensitive assets and liabilities, have been prescribed by RBI.

Each bank is required to set prudential limits on individual gaps with the approval of the Board/ Management Committee. The prudential limits should have a bearing on the total assets, earning assets or equity. The banks may work out Earnings at Risk or Net Interest Margin based on their views on interest rate movements and fix a prudent level with the approval of the Board/ Management Committee.
4.2.4 General

Banks which are better equipped to reasonably estimate the behavioral pattern, embedded options, roll-in and roll-out, etc. of various components of assets and liabilities on the basis of past data/empirical studies could classify them in the appropriate time buckets, subject to approval from the ALCO/Board.

RBI has emphasised that a scientifically evolved internal transfer pricing model by assigning values on the basis of current market rates to funds provided and funds used is an important component for effective implementation of ALM system.

4.3 RBI' GUIDANCE NOTE ON MARKET RISK MANAGEMENT (2002)

The business decisions of the bank have to be based on a dynamic and integrated risk management system and process, driven by corporate strategy. The core principles for effective Banking Supervision of the Basel Committee on Banking Supervision (BCBS) of the bank mandate that supervisors must be satisfied that banks have adequate policies and procedures for identifying, monitoring and controlling credit, market, operational, country and transfer risks.

In view of above developments, RBI has found it essential that the banks adopt a more structured and comprehensive approach to market risk management. This Guidance Note on market risk management lays emphasis on the management of liquidity risk and market risk, the latter further categorized into interest rate risk, foreign exchange risk, commodity price and equity risk.
4.3.1 POLICY FRAMEWORK AND ORGANISATIONAL SET-UP

All banks should establish specific policies on market risk management. The responsibilities of Risk Management Committee, with regard to market risk management aspects are: a) setting policies and guidelines for market risk measurement, management and reporting, b) ensuring that market risk management processes (including people, systems, operations, limits and controls) satisfy bank’s policy, c) reviewing and approving market risk limits, including triggers or stop-losses for traded and accrual portfolios, d) ensuring certification of financial models through appointment of qualified and competent staff and the effectiveness of all systems used to calculate market risk and e) appointment of independent market risk manager/s, etc.

The policy framework includes specifying the responsibilities of Risk Taking Unit, Line Management and Market Risk Manager. All Risk Taking Units must operate within an approved, current market risk product Programme—which should define procedures, limits and controls for all aspects of the product.

Limits and triggers. All trading transactions will be booked on systems capable of accurately calculating relevant sensitivities on a daily basis, usage of sensitivity and Value at Risk limits for trading portfolios and limits for accrual portfolios, must be measured on daily basis. In instances, where daily monitoring is not done, Risk Taking Units must have procedures that monitor activity so that they remain within approved limits at all times. Further, approved Management Action Triggers or Stop-loss are needed for all mark to market risk taking activities.

All trading activities are needed to be conducted on an arm’s length basis in a manner conforming to applicable legal, tax, regulatory and accounting provisions of the country as well as bank’s own internal policies and procedures.
**Risk Monitoring.** It calls for: a) a rate reasonability process to ensure that all transactions are executed and revalued at prevailing market rates, b) financial models used for revaluations for income recognition purposes or to measure or monitor price risk (independently tested and certified) and c) stress tests performed at least quarterly or trading and accrual portfolios.

A Liquidity and Capital plan must be submitted annually and Contingency Funding Plans quarterly (and these should not show deficit for short tenors). The models used, should be subject to model assumption review on a periodic basis.

The **risk reporting** should enhance risk communication across different levels and it should be timely, reasonably accurate, highlight portfolio risk concentrations, in written commentary form and be concise.

### 4.3.2 ORGANISATIONAL SET-UP

The Board of the banks should articulate market risk management policies, procedures, prudential risk limits, review mechanisms and reporting and auditing systems. The **ALCO should function as the top operational unit for managing the balance sheet within the performance/ risk parameters laid down by the Board.**

The organization set up for market risk management should comprise: a) Board of Directors, b) Risk Management Committee c) ALCO and d) ALM Support Group. *The role of ALCO should include:* a) **product pricing for deposits and advances,** b) **deciding on desired maturity profile and mix of incremental assets and liabilities,** c) **articulating interest rate view of the bank and deciding on the future business strategy,** d) **reviewing and articulating funding strategy** and e) **reviewing economic and political impact on the balance sheet.**
The ALM Support Groups consisting of operating staff should be responsible for analyzing, monitoring and reporting the risk profiles to the ALCO. The size of ALCO would depend on the size of the bank, business mix and organizational complexity. The CEO/CMD or the ED should head the Committee, to ensure the top management commitment and the chiefs of Investment, Credit, Resources Management or Planning, Funds Management/ Treasury (forex and domestic), International Banking, Technology and Economic Research ought to be the members.

The Guidance Note on Market Risk Management of RBI has specified the roles of Middle Offices, Dealing Room and the Back Office, in details.

4.3.3 LIQUIDITY RISK MANAGEMENT

Measuring and managing liquidity needs are vital for effective operation of commercial banks. It is essential to understand how the funding requirements are likely to be effected under crisis scenarios. Since it is difficult to forecast with precision, the various factors affecting the liquidity of assets and liabilities of the bank, it is necessary to frequently review to determine their continuing validity, especially in the rapidly changing scenario of financial markets.

The liquidity risk management has to address the different dimensions of liquidity risks: a) funding risk (need to replace net outflows due to unanticipated withdrawal / non-renewal of deposits), b) time risk (need to compensate for non-receipt of expected inflows of funds) and c) call risk (due to crystallisation of contingent liabilities).

RBI Guidance Note emphasises on putting in place an effective liquidity management policy, which should spell out the funding strategies, liquidity planning under alternative scenarios, prudential limits, liquidity reporting/reviewing, etc. While the liquidity ratios are the ideal indicator of liquidity of banks
operating in developed financial markets, these ratios, however do not reveal the intrinsic liquidity profile of Indian banks, which generally operate in illiquid market (e.g. assets like Government securities etc. have limited liquidity).

RBI in its Note has advised the banks to consider putting in place certain prudential limits to avoid liquidity crisis: a) cap on inter-bank borrowings, especially call borrowings, b) purchased funds vis-à-vis liquid assets, c) core deposits vis-à-vis core assets, d) duration of liabilities and investment portfolio, e) maximum cumulative outflows across all time bands, e) commitment ratio—track the total commitments given to corporates/ banks and other financial institutions to limit the off-balance sheet exposure and f) Swapped Funds Ratio i.e. extent of Indian rupees raised out of foreign currency sources.

The Contingency Funding Plan has been deliberated in details in the Guidance Note. The ALCO need to implement the Contingency Funding Plan amending it in agreement with the Risk Policy Committee, where necessary, to meeting changing conditions, daily reports are to be submitted to the Treasury Head and the Risk Policy Committee, comparing actual cash flows with the assumptions of the Contingency Funding Plan.

4.3.4 INTEREST RATE RISK MANAGEMENT

The deregulation of interest rates has exposed Indian banks to the adverse impacts of interest rate risk. The Net Interest Income or Net Interest Margin of banks is dependent on the movements of interest rates; these are also affected by any mismatches in the cash flows (fixed assets or liabilities) or repricing dates (floating assets or liabilities).

Generally, the approach towards measurement and hedging of interest rate risk varies with the segmentation of the balance sheet. Banks broadly position their balance sheet into Trading and Banking Books. While the price risk is the
prime concern of banks in trading book, the earnings or economic value changes are the main focus of banking book.

*RBI has laid emphasis that the top management of banks should lay down policies with regard to volume, maximum maturity, holding period, duration, stop loss, defeasance period, rating standards, etc. for classifying securities in the trading book.* The securities held in the trading book should ideally be marked to market on a daily basis, and the potential price risk to changes in market risk factors should be estimated through internally developed Value at Risk models.

The changes in market interest rates have earnings *(in short term)* and economic value *(in long term)* impacts on the bank’s banking book. *RBI has advised that the bank should have measurement systems that assess the effects of the rate changes on both earnings and economic value.* The variety of techniques ranges from simple maturity (fixed rate) and repricing (floating rate) gaps and duration gaps to static simulation, based on current on-and-off-balance sheet positions, to highly sophisticated dynamic modeling techniques (that incorporate assumptions on behavioural pattern of assets, liabilities and off-balance sheet items and can easily capture the full range of exposures against basis risk, embedded option risk, yield curve risk, etc.).

*RBI has taken number of measures to correct the systemic rigidities, like: a) floating rate deposits, b) fixed rare lending, c) tenor-linked PLR, d) interest rate derivative products like interest rate swaps and forward rate agreements and e) pricing of rupee interest rate derivatives, banks have been allowed to use interest rate implied in foreign exchange market, etc.*

In tune with the Narasimham Committee II recommendations on Banking Sector Reforms, RBI has also prescribed 2.5 per cent risk-weight for capital adequacy for market risk on SLR and non-SLR securities, w.e.f. from 31st March, 2000 and 2001 respectively.
In line with Basle Committee on Banking Supervision of the Bank for International Settlements’ introduced capital charge for market risk, the banks in India are required to apply the 2.5 per cent risk-weight for capital charge for market risk for the whole investment portfolio and 100 per cent risk-weight on open gold and forex position limits.

4.3.5 FOREIGN EXCHANGE RISK MANAGEMENT

There are tools available to hedge foreign exchange risk like over the counter forwards, futures, money market instruments, options, etc. Most currency management instruments enable the bank to take a long or a short position to hedge an opposite short or long position.

RBI has advised that the banks can build up gaps, subject to the mandated gap limits, and do offsetting swaps to reduce gap risks if it so desires periodically. The bank’s treasury might also do transactions to take advantage of equilibrium situations, subject to such transactions permissible. The banks can also do transactions to take advantage of expected interest rate changes by using either the money market route (mismatched cash-flow maturities) or the forex market route (by running a gap risk).

RBI, has further stressed upon the management to keep in place systems of stop loss discipline, proper monitoring and evaluation of open positions, etc. The management of the bank need to lay out clear and unambiguous performance measurement criteria, accountability norms and financial limits in its treasury operations.
4.3.6 OTHER ASPECTS OF GUIDANCE NOTE OF RBI ON MARKET RISK MANAGEMENT

In the subsequent pages the Guidance Note of RBI, deliberates in details on the treatment of market risk in the proposed Basel Capital Accord, interalia BCBS principles for interest rate risk management (Annexure-I); sources, effects and measurement of interest rate risk (Annexure-II); Value at Risk (Annexure-III) and Stress Testing (Annexure-IV). The Guidance Note of RBI on Market Risk is available on its web site (www.rbi.org.in).

4.4 RBI MEASURES ON DEVELOPMENT OF DERIVATIVES MARKET

RBI's approach for introducing derivative market in the country has been in a phased manner. Derivative products like currency forwards, interest rate products, currency options (foreign currency - foreign currency) were introduced in 1993, followed by rupee interest rate derivatives in 1999 and currency options (Indian rupee-foreign currency) in 2003— in phases.

RBI has brought out Guidelines on Exchange Traded Interest Rate Derivatives (IDMD.PDRS.4802(a)/03.64.00/2002-03dated11.06.2003) and Foreign Currency-Rupee Options (A.P.-DIR Series-Circular No. 108 dated 21.06.2003).

The Guidelines on ALM by RBI and Guidance Note on Market Risk, and the measures for developing derivatives market are important initiatives by RBI for managing the risks associated with ALM by Indian Banks.

REFERENCES


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