

## Asset Liability Management (ALM) System

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To

All India Financial Institutions  
(ICICI, IDBI, IFCI, IDFC, TFCI, IIBI, NABARD, NHB, SIDBI and EXIM Bank)

Dear Sir,

### Asset Liability Management (ALM) System

As you are aware, the final guidelines for introduction of ALM system by banks have been recently issued by RBI and the system has become operational w.e.f. 1 April 1999. Since the operations of financial institutions also give rise to liquidity and interest rate risk exposures, it has been decided to introduce an ALM system for the all-India financial institutions as well, as part of their overall system for effective risk management in their various portfolios.

2. We forward herewith the broad draft guidelines for measurement of liquidity and interest rate risk which could form the basis for evolving an ALM system by the FIs. The intention of issuing these guidelines is to sensitise the managements of FIs to the need for a formally structured management of the liquidity and interest rate risk of their portfolios and to provide a basis for initiating measures for collection, compilation and analysis of data required for an effective ALM system. The FIs may study the draft guidelines and offer their suggestions on the aspects where there are likely to be practical difficulties in implementing the guidelines latest by 30 June 1999.

3. The guidelines are expected to be particularly useful for the FIs which do not have a formal and well structured ALM system. However, if any of the FIs already have more sophisticated ALM systems in place, they may continue with the same but should fine tune their reporting systems, where necessary, so as to conform to the prescribed guidelines . It would be desirable to constitute a small Group under the charge of the senior executive responsible for treasury function of the institution, with members drawn from investments, foreign exchange, credit and MIS areas. The Group should be entrusted with the task of carrying out necessary spade work for formalising the ALM system in the institution.

4. We would like the financial institutions to introduce the ALM system w.e.f. 1<sup>st</sup> October 1999 on a trial run basis so that they are in a position to switch over to a regular ALM system from 1<sup>st</sup> April 2000.

5. Please acknowledge receipt.

Yours faithfully,

**(K. C. Bandyopadhyay)**  
**Chief General Manager**

Encl: as above

## ASSET - LIABILITY MANAGEMENT (ALM) SYSTEM IN FINANCIAL INSTITUTIONS (FIS) - GUIDELINES

In the normal course, FIs are exposed to credit and market risks in view of the asset-liability transformation. With liberalisation in Indian financial markets over the last few years and growing integration of domestic markets and with external markets, the risks associated with FIs' operations have become complex and large, requiring strategic management. FIs are now operating in a fairly deregulated environment and are required to determine on their own, interest rates on deposits and advance in both domestic and foreign currencies on a dynamic basis. The interest rates on FIs' investments in government and other securities are also now market related. Intense competition for business involving both the assets and liabilities, together with increasing volatility in the domestic interest rates as well as foreign exchange rates, has brought pressure on the management of FIs to maintain a good balance among spreads, profitability and long-term viability. Imprudent liquidity management can put FIs' earnings and reputation at great risk. These pressures call for structured and comprehensive measures and not just *ad hoc* action. The Management of FIs has to base their business decisions on a dynamic and integrated risk management system and process, driven by corporate strategy. FIs are exposed to several major risks in the course of their business - credit risk, interest rate risk, foreign exchange risk, equity / commodity price risk, liquidity risk and operational risk. It is, therefore, important that FIs introduce effective risk management systems that address the issues related to interest rate, currency and liquidity risks.

FIs need to address these risks in a structured manner by upgrading their risk management and adopting more comprehensive Asset-Liability Management (ALM) practices than has been done hitherto. ALM, among other functions, is also concerned with risk management and provides a comprehensive and dynamic framework for measuring, monitoring and managing liquidity, interest rate, foreign exchange and equity and commodity price risks of a bank that needs to be closely integrated with the FIs' business strategy. It involves assessment of various types of risks and altering the asset-liability portfolio in a dynamic way in order to manage risks.

2. This note lays down broad guidelines in respect of interest rate and liquidity risks management systems in FIs which form part of the Asset-Liability Management (ALM) function. The initial focus of the ALM function would be to enforce the risk management discipline viz. managing business after assessing the risks involved. The objective of good risk management systems should be that these systems will evolve into a strategic tool for FIs management.

3. The ALM process rests on three pillars:

- ALM Information Systems
  - ⇒ Management Information Systems
  - ⇒ Information availability, accuracy, adequacy and expediency
- ALM Organisation
  - ⇒ Structure and responsibilities
  - ⇒ Level of top management involvement
- ALM Process
  - ⇒ Risk parameters
  - ⇒ Risk identification

- ⇒ Risk measurement
- ⇒ Risk management
- ⇒ Risk policies and tolerance levels.

#### 4. ALM Information Systems

ALM has to be supported by a management philosophy which clearly specifies the risk policies and tolerance limits. This framework needs to be built on sound methodology with necessary information system as back up. Thus, information is the key to the ALM process. It is, however, recognised that varied business profiles of FIs in the public and private sector do not make the adoption of a **uniform ALM System** for all FIs feasible. There are various methods prevalent world-wide for measuring risks. These range from the simple Gap Statement to extremely sophisticated and data intensive Risk Adjusted Profitability Measurement methods. However, the central element for the entire ALM exercise is the availability of adequate and accurate information with expedience and the existing systems in many FIs do not generate information in the manner required for ALM. Collecting accurate data in a timely manner will be the biggest challenge before the FIs, particularly lacking full scale computerisation. However, the introduction of base information system for risk measurement and monitoring has to be addressed urgently. As FIs are aware, internationally, regulators have prescribed or are in the process of prescribing capital adequacy for market risks. A pre-requisite for this is that FIs must have in place an efficient information system.

Considering the large network of branches and the lack of (an adequate) support system to collect information required for ALM which analyses information on the basis of residual maturity and behavioural pattern, it will take time for FIs in the present state to get the requisite information. In respect of foreign exchange, investment portfolio and money market operations, in view of the centralised nature of the functions, it would be much easier to collect reliable information. The data and assumptions can then be refined over time as the FI management gain experience of conducting business within an ALM framework. The spread of computerisation will also help FIs in accessing data.

#### 5. ALM Organisation

5.1 a) Successful implementation of the risk management process would require strong commitment on the part of the senior management in the FI, to integrate basic operations and strategic decision making with risk management. The Board should have overall responsibility for management of risks and should decide the risk management policy of the FI and set limits for liquidity, interest rate, foreign exchange and equity price risks.

b) The Asset - Liability Committee (ALCO) consisting of the FI's senior management including CEO should be responsible for ensuring adherence to the limits set by the Board as well as for deciding the business strategy of the FI (on the assets and liabilities sides) in line with the FI's budget and decided risk management objectives.

c) The ALM Support Groups consisting of operating staff should be responsible for analysing, monitoring and reporting the risk profiles to the ALCO. The staff should also prepare forecasts (simulations) showing the effects of various possible changes in market conditions related to the balance sheet and recommend the action needed to adhere to FI's internal limits.

5.2 The ALCO is a decision making unit responsible for balance sheet planning from risk-return perspective including the strategic management of interest rate and liquidity risks. Each FI will have to decide on the role of its ALCO, its responsibility as also the decisions to be taken by it. The business and risk management strategy of the FI should ensure that the FI operates within the limits / parameters set by the Board. The business issues that an ALCO would consider, inter alia, will include product pricing for both deposits and advances, desired maturity profile and mix of the incremental assets and liabilities, etc. In addition to monitoring the risk levels of the FI, the ALCO should review the results of and progress in implementation of the decisions made in the previous meetings. The ALCO would also articulate the current interest rate view of the FI and base its decisions for future business strategy on this view. In respect of the funding policy, for instance, its responsibility would be to decide on source and mix of liabilities or sale of assets. Towards this end, it will have to develop a view on future direction of interest rate movements and decide on funding mixes between fixed *vs* floating rate funds, wholesale *vs* retail deposits, money market *vs* capital market funding, domestic *vs* foreign currency funding, etc. Individual FIs will have to decide the frequency for holding their ALCO meetings.

### 5.3 Composition of ALCO

The size (number of members) of ALCO would depend on the size of each institution, business mix and organisational complexity. To ensure commitment of the Top Management and timely response to market dynamics, the CEO/CMD or the ED should head the Committee. The Chiefs of Investment, Credit, Resources Management or Planning, Funds Management / Treasury (forex and domestic), International Business and Economic Research can be members of the Committee. In addition, the Head of the Technology Division should also be an invitee for building up of MIS and related computerisation. Some FIs may even have Sub-committees and Support Groups.

### 5.4 Committee of Directors

The Management Committee of the Board or any other Specific Committee constituted by the Board should oversee the implementation of the system and review its functioning periodically.

### 5.5 ALM Process:

The scope of ALM function can be described as follows:

- Liquidity risk management
- Management of market risks
- Trading risk management
- Funding and capital planning
- Profit planning and growth projection

The guidelines given in this note mainly address Liquidity and Interest Rate risks.

## 6. Liquidity Risk Management

6.1 Measuring and managing liquidity needs are vital for effective operation of FIs. By assuring a FI's ability to meet its liabilities as they become due, liquidity management can reduce the probability of an adverse situation developing. The importance of liquidity transcends individual institutions, as liquidity shortfall in one institution can have repercussions on the entire system. FIs management should measure not only the liquidity positions of FIs on an ongoing basis but also examine how liquidity requirements are likely to

evolve under different assumptions. Experience shows that assets commonly considered, as liquid like Government securities and other money market instruments could also become illiquid when the market and players are unidirectional. Therefore liquidity has to be tracked through maturity or cash flow mismatches. 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. The format of the Statement of Structural Liquidity is given in Annexure I.

6.2 The Maturity Profile as given in Appendix I could be used for measuring the future cash flows of FIs in different time buckets. The time buckets, may be distributed as under:

- i) 1 to 14 days
- ii) 15 to 28 days
- iii) 29 days and upto 3 months
- iv) Over 3 months and upto 6 months
- v) Over 6 months and upto 1 year
- vi) Over 1 year and upto 3 years
- vii) Over 3 years and upto 5 years
- viii) Over 5 years and upto 7 years
- ix) Over 7 years and upto 10 years
- x) Over 10 years.

6.3 The investments are assumed as illiquid due to lack of depth in the secondary market and are therefore required to be shown under respective maturity buckets, corresponding to the residual maturity. However, some of the FIs may be maintaining securities in the 'Trading Book', which are kept distinct from other investments made for retaining relationship with customers. Securities held in the 'Trading Book' are subject to certain preconditions like :

- i) The composition and volume are clearly defined;
- ii) Maximum maturity/duration of the portfolio is restricted;
- iii) The holding period not to exceed 90 days;
- iv) Cut-loss limit prescribed;
- v) Defeasance periods (product-wise) i.e. time taken to liquidate the position on the basis of liquidity in the secondary market are prescribed;
- vi) Marking to market on a daily/weekly basis and the revaluation gain/loss charged to the profit and loss account; etc.

FIs which maintain such 'Trading Books' and complying with the above standards are permitted to show the trading securities under 1-14 days, 15-28 days and 29-90 days buckets on the basis of the defeasance periods. The Board/ALCO of the FIs should approve the volume, composition, holding/defeasance period, cut loss, etc. of the 'Trading Book' and copy of the policy note thereon should be forwarded to the Department of Banking Supervision, FID, RBI.

6.4 Within each time bucket there could be mismatches depending on cash inflows and outflows. While the mismatches upto 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. FIs however, are expected to monitor their cumulative mismatches (running total) across all time buckets by establishing internal prudential limits with the approval of the Board / Management Committee. The mismatches

(**negative gap**) during 1-14 days and 15-28 days in normal course may not exceed 5% of the cash outflows in each time bucket. If a FI in view of its current asset -liability profile and the consequential structural mismatches needs higher tolerance level, it could operate with higher limit sanctioned by its Board / Management Committee giving specific reasons on the need for such higher limit. The discretion to allow a higher tolerance level is intended for a temporary period, i.e. till **March 31, 2000**.

6.5 The Statement of Structural Liquidity ( Annexure I ) may be prepared by placing all cash inflows and outflows in the maturity ladder according to the expected timing of cash flows. A maturing liability will be a cash outflow while a maturing asset will be a cash inflow. It would also be necessary to take into account the rupee inflows and outflows on account of forex operations. While determining the likely cash inflows / outflows, FIs have to make a number of assumptions according to their asset - liability profiles. While determining the tolerance levels the FIs may take into account all relevant factors based on their asset-liability base, nature of business, future strategy, etc. The RBI is interested in ensuring that the tolerance levels are determined keeping all necessary factors in view and further refined with experience gained in Liquidity Management.

6.6 In order to enable the FIs to monitor their short-term liquidity on a dynamic basis over a time horizon spanning from 1 day to 6 months, FIs may estimate their short-term liquidity profiles on the basis of business projections and other commitments for planning purposes. An indicative format ( Annexure III ) for estimating Short-term Dynamic Liquidity is enclosed.

## 7. Currency Risk

7.1 Floating exchange rate arrangement has brought in its wake pronounced volatility adding a new dimension to the risk profile of FIs' balance sheets. The increased capital flows across free economies following deregulation have contributed to increase in the volume of transactions. Large cross border flows together with the volatility has rendered the FIs' balance sheets vulnerable to exchange rate movements.

7.2 Dealing in different currencies brings opportunities as also risks. If the liabilities in one currency exceed the level of assets in the same currency, then the currency mismatch can add value or erode value depending upon the currency movements. The simplest way to avoid currency risk is to ensure that mismatches, if any, are reduced to zero or near zero. FIs undertake operations in foreign exchange like borrowings, making loans and advances and quoting prices for foreign exchange transactions. Irrespective of the strategies adopted, it may not be possible to eliminate currency mismatches altogether. Besides, some of the institutions may take proprietary trading positions as a conscious business strategy.

7.3 Managing Currency Risk is one more dimension of Asset- Liability Management. Mismatched currency position besides exposing the balance sheet to movements in exchange rate also exposes it to country risk and settlement risk. Following the introduction of "Guidelines for Internal Control over Foreign Exchange Business" in 1981, maturity mismatches (gaps) are also subject to control. Following the recommendations of Expert Group on Foreign Exchange Markets in India (Sodhani Committee) the calculation of exchange position has been redefined and FIs have been given the discretion to set up overnight limits linked to maintenance of capital to Risk-Weighted Assets Ratio of 8% of open position limit.

7.4 Presently, the FIs are also free to set gap limits with RBI's approval but are required to adopt Value at Risk (VaR) approach to measure the risk associated with forward exposures. Thus the open position limits together with the gap limits form the risk management approach to forex operations. For monitoring such risks FIs should follow the instructions contained in Circular A.D (M. A. Series) No.52 dated December 27, 1997 issued by the Exchange Control Department.

## 8. Interest Rate Risk (IRR)

8.1 The phased deregulation of interest rates and the operational flexibility given to FIs in pricing most of the assets and liabilities imply the need for the financial system to hedge the Interest Rate Risk. Interest rate risk is the risk where changes in market interest rates might adversely affect a FI's financial condition. The changes in interest rates affect FIs in a larger way. The immediate impact of changes in interest rates is on FI's earnings (i.e. reported profits) by changing its Net Interest Income (NII). A long-term impact of changing interest rates is on FI's Market Value of Equity (MVE) or Net Worth as the economic value of FI's assets, liabilities and off-balance sheet positions get affected due to variation in market interest rates. The interest rate risk when viewed from these two perspectives is known as 'earnings perspective' and 'economic value' perspective, respectively. The risk from the earnings perspective can be measured as changes in the Net Interest Income (NII) or Net Interest Margin (NIM). There are many analytical techniques for measurement and management of Interest Rate Risk. In the context of poor MIS, slow pace of computerisation in FIs, the traditional Gap analysis is considered as a suitable method to measure the Interest Rate Risk in the first place. It is the intention of RBI to move over to the modern techniques of Interest Rate Risk measurement like Duration Gap Analysis, Simulation and Value at Risk over time when FIs acquire sufficient expertise and sophistication in acquiring and handling MIS.

The Gap or Mismatch risk can be measured by calculating Gaps over different time intervals as at a given date. Gap analysis measures mismatches between rate sensitive liabilities and rate sensitive assets (including off-balance sheet positions). An asset or liability is normally classified as rate sensitive if:

- i) within the time interval under consideration, there is a cash flow;
- ii) the interest rate resets/reprices contractually during the interval;
- iii) dependent on RBI changes in the interest rates/Bank Rate;
- iv) it is contractually pre-payable or withdrawal before the stated maturities.

8.2 The Gap Report should be generated by grouping rate sensitive liabilities, assets and off-balance sheet positions into time buckets according to residual maturity or next repricing period, whichever is earlier. The difficult task in Gap analysis is determining rate sensitivity. All investments, advances, deposits, borrowings, purchased funds, etc. that mature/reprice within a specified timeframe are interest rate sensitive. Similarly, any principal repayment of loan is also rate sensitive if the FI expects to receive it within the time horizon. This includes final principal payment and interim instalments. Certain assets and liabilities receive/pay rates that vary with a reference rate. These assets and liabilities are repriced at pre-determined intervals and are rate sensitive at the time of repricing. While the interest rates on term deposits are fixed during their currency, the tranches of advances portfolio is basically floating. The interest rates on advances could be repriced any number of occasions, corresponding to the changes in PLR.

The Gaps may be identified in the following time buckets:

- i) 1-28 days
- ii) 29 days and upto 3 months
- iii) Over 3 months and upto 6 months
- iv) Over 6 months and upto 1 year
- v) Over 1 year and upto 3 years
- vi) Over 3 years and upto 5 years
- vii) Over 5 years and upto 7 years
- viii) Over 7 years and upto 10 years
- ix) Over 10 years
- x) Non-sensitive

The various items of rate sensitive assets and liabilities and off-balance sheet items may be classified as explained in Appendix - II and the Reporting Format for interest rate sensitive assets and liabilities is given in Annexure II.

8.3 The Gap is the difference between Rate Sensitive Assets (RSA) and Rate Sensitive Liabilities (RSL) for each time bucket. The positive Gap indicates that it has more RSAs than RSLs whereas the negative Gap indicates that it has more RSLs. The Gap reports indicate whether the institution is in a position to benefit from rising interest rates by having a positive Gap ( $RSA > RSL$ ) or whether it is in a position to benefit from declining interest rates by a negative Gap ( $RSL > RSA$ ). The Gap can, therefore, be used as a measure of interest rate sensitivity.

8.4 Each FI should set prudential limits on individual Gaps with the approval of the Board/Management Committee. The prudential limits should have a relationship with the **Total Assets , Earning Assets or Equity**. The FIs may work out Earnings at Risk (EaR) or Net Interest Margin (NIM) based on their views on interest rate movements and fix a prudent level with the approval of the Board/Management Committee.

8.5 RBI will also introduce capital adequacy for market risks in due course.

## 9. General

9.1 The classification of various components of assets and liabilities into different time buckets for preparation of Gap reports (Liquidity and Interest Rate Sensitivity) as indicated in Appendices I & II is the **benchmark**. FIs which are better equipped to reasonably estimate the behavioural pattern, embedded options, rolls-in and rolls-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. A copy of the note approved by the ALCO / Board may be sent to the Department of Banking Supervision, Financial Institutions Division.

9.2 The present framework does not capture the impact of embedded options, i.e. the customers exercising their options (premature closure of deposits, bonds and prepayment of loans and advances) on the liquidity and interest rate risks profile of FIs. The magnitude of embedded option risk at times of volatility in market interest rates is quite substantial.. FIs should therefore evolve suitable mechanism, supported by empirical studies and behavioural analysis to estimate the future behaviour of assets, liabilities and off-balance sheet items to changes in market variables and estimate the embedded options.



9.3 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. The transfer price mechanism can enhance the management of margin i.e. lending or credit spread, the funding or liability spread and mismatch spread. It also helps centralising interest rate risk at one place which facilitate effective control and management of interest rate risk. A well defined transfer pricing system also provide a rational framework for pricing of assets and liabilities.

## Appendix - I

### Maturity Profile - Liquidity

#### Heads of Accounts Time-bucket category

#### **A. Outflows**

##### 1. Capital funds

- a) Equity capital, Non-redeemable or perpetual }  
preference capital, Reserves, Funds and Surplus }
- b) Preference capital - redeemable/non-perpetual

The '10 year and above' time-bucket.

As per the residual maturity of the shares.

##### 2. Gifts, grants, donations and benefactions

The '10 year and above' time-bucket. However, if such gifts, grants, etc., are tied to specific end-use, then these may be slotted in the time- bucket as per purpose/end-use specified.

##### 3. Notes, Bonds and debentures ( including Subordinated bonds, rupee as well as foreign currency bonds the proceeds of which have been converted into rupees)

- a) Plain vanilla bonds/debentures
- b) Bonds/debentures with embedded call/put options (including zero-coupon/deep discount bonds)

As per the residual maturity of the instruments.  
As per the residual period for the earliest exercise date for the embedded option..

##### c) Fixed rate notes

As per the residual maturity

##### 3. Deposits:

##### a) Term deposits from public

As per the residual maturity. Alternatively, the FIs which are better equipped, could analyse the behaviour of their deposits in terms of exercise of embedded options subject to lock-in period, roll-in and roll-out of deposits, etc., and slot them as per their behavioural maturity rather than the residual maturity.

##### b) Inter Corporate Deposits

These being institutional/wholesale deposits, should be slotted as per their residual maturity  
As per the residual maturity.

##### c) Certificates of Deposit

##### 5. Borrowings

- a) Term money borrowings
- b) From RBI, Govt. & others

As per the residual maturity  
-do-

##### 6) Current liabilities and provisions:

##### a) Sundry creditors

As per the due date or likely timing of cash outflows. A behavioral analysis could also be

- b) Expenses payable (other than interest)
- c) Advance income received, receipts from borrowers pending adjustment
- d) Interest payable on bonds/deposits

e) Provisions for NPAS

f) Provision for Investments portfolio

g) Other provisions

### **B. Inflows**

- 1. Cash
- 2. Remittance in transit
- 3. Balances with RBI
- 4. Balances with banks (in India only)
- a) Current account

- b) Money at call and short notice
- c) Deposit accounts/short term deposits
- 5. Investments (net of provisions)
  - a) Govt. securities
  - b) Corporate bonds and debentures

- c) Non-convertible, redeemable preference shares and units of closed-ended mutual funds.
- d) Equity shares, convertible preference shares, non-redeemable, perpetual preference shares, shares of subsidiaries/joint ventures and units in open

made to assess the trend of outflows and the amounts slotted accordingly.

As per the likely time of cash outflow.

In the '10 year and above' time-bucket as these do not involve any cash outflow.

In respective time buckets as per the due date of payment. The amount of interest overdue (including the amount pre-funded in the account with RBI for servicing of outstanding SLR bonds pending claims from investors) be shown in 1 - 14 days time-bucket. In case of floating rate bonds/deposits, outflow may be calculated at current interest rate.

The amount of provision may be netted out from the gross amount of the NPA portfolio and the net amount of NPAs be shown as an item under inflows in stipulated time-buckets.

The amount may be netted from the gross value of investments portfolio and the net investments be shown as inflow in the prescribed time-slots. In case provisions are not held security-wise, the provision may be shown on "over 10 years bucket".

To be bucketed as per the purpose/nature of the underlying transaction.

In 1 to 14 day time-bucket.

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---do---

The stipulated minimum balance be shown in 1 to 3 years bucket. The balance in excess of the minimum balance be shown in 1 to 14 day time bucket.

In 1 to 14 day time bucket.

As per residual maturity.

As per residual maturity of the securities.

As per residual maturity of the instruments.

However, the bonds/debentures valued by applying NPA norms due to non-servicing of interest, should be shown in 3-5 year bucket if sub-standard norms and in 5 to 7 year bucket if doubtful norms are applied for valuation respectively.

As per residual maturity of the instruments.

(i) Shares classified as "current" investments representing trading book of the FI may be shown in time buckets of 1 - 14 days, 15 -28 days and 29

ended mutual funds.

e) Venture capital units

**6. Advances (performing)**

a) Bill of Exchange and promissory notes discounted and rediscounted

b) Term loans (rupee loans only)

c) Corporate loans/short term loans

**7. Non-performing loans**

(May be shown net of the provisions, interest suspense held and the amount of claims received from ECGC.)

a) Sub-standard

i) All overdues and instalments of principal falling due during the next three years

ii) Entire principal amount due beyond the next three years

b) Doubtful and loss

i) All instalments of principal falling due during the next five years as also all overdues

ii) Entire principal amount due beyond the next five years

**8. Assets on lease**

**9. Fixed assets** (excluding leased assets)

**10. Other assets**

(a) Intangible assets and items not representing cash inflows.

(b) Other items (such as accrued income, other receivables, staff loans, etc.)

**C. Contingent liabilities**

(a) Letters of credit/guarantees (outflow through devolvement)

days to upto 3 months time buckets as per the defeasance period (i.e. the time required to liquidate these shares) of various securities.

(ii) Shares classified as "long term" investments may be kept in 10 year and above bucket.

However, the shares of the assisted units/companies acquired as part of the initial financing package, may be slotted in the relative time bucket keeping in view the pace of project implementation/time-overrun, etc., and the resultant likely timeframe for divesting such shares.

In the '10 year and above ' time bucket.

As per the residual usance of the underlying bills.

The cash inflows on account of the interest and principal of the loan may be slotted in respective time buckets as per the timing of the cash flows as stipulated in the original/revised repayment schedule.

As per the residual maturity

In the 3 to 5 year time-bucket.

In the time-bucket arrived at after adding 3 years to the respective due dates of various instalments of principal.

In the 3 to 5 year time-bucket

In the time-bucket arrived at after adding five years to the respective due dates of various instalments of principal

Cash flows from the lease transaction may be slotted in respective time buckets as per the timing of the cash flow.

In the '10 year and above' time-bucket.

In the '10 year and above' time-bucket.

In respective maturity buckets as per the timing of the cashflows.

Based on the past trend analysis of the devolvments vis-à-vis the outstanding amount of

- |  |  |
|--|--|
|  | LCs/guarantees (net of margins held), the likely devolvments should be estimated and this amount could be distributed in various time buckets on judgmental basis. The assets created out of devolvments may be shown under respective maturity buckets on the basis of probable recovery dates. |
| (b) Loan commitments pending disbursal (outflow)   | In the respective time buckets as per the sanctioned disbursement schedule.  |
| (c) Lines of credit committed to/by other Institutions (outflow/inflow)                          | In the 1 to 14 day time-bucket.  |
| (d) Underwriting commitments (outflow)   | Based on the analysis of the past trend of devolvment of underwriting commitments, the amount of such commitments may be slotted in the relative time bucket as per the time schedule of IPO/finalisation of allotment.  |
| (e) Forward exchange contracts/rupee dollar swaps, bills rediscounted and repos (inflow/outflow) | In the respective time buckets as per the residual maturity of the underlying bills/transactions.  |

**Note:**

- a) Any event-specific cash flows (e.g. outflow due to wage settlement arrears, capital expenses, income tax refunds, etc.) should be shown in a time bucket corresponding to timing of such cash flows.
- b) All overdue liabilities be shown in the 1 to 14 days time bucket.
- a) Overdue receivables on account of interest and instalments of standard loans should be slotted as below:
  - (i) Overdue for less than one month. In the 3 to 6 month bucket.
  - (ii) Interest overdue for more than one month but less than seven months (i.e. before the relative amount becomes past due for six months) In the 6 to 12 month bucket without reckoning the grace period of one month.
  - (iii) Principal instalments overdue for 7 months but less than one year In 1 to 3 year bucket.

**D. Financing of gaps:**

The negative gap (i.e. where outflows exceed inflows) in the 1 to 14 days and 15 - 28 days time-bucket should not exceed the prudential limit of 5 % of outflows of each time-bucket and the cumulative gap upto the one year period should not exceed 10% of the cumulative cash outflows upto one year period. In case these limits are exceeded, the measures proposed for bringing the gaps within the limit, should be shown by a footnote in the relative statement.

**Appendix II**

**Interest Rate Sensitivity**

Heads of accounts

Rate sensitivity of time bucket

## **LIABILITIES**

1. Capital, Reserves & Surplus

Non-sensitive

2. Gifts, grants & benefactions

-do-

### **3. Notes, bonds & debentures :**

a) Floating rate

Sensitive; reprice on the roll-over/repricing date should be slotted in respective time buckets as per the repricing dates.

b) Fixed rate (plain vanilla) including zero coupons

Sensitive; reprice on maturity. To be placed in respective time buckets as per the residual maturity of such instruments.

c) Instruments with embedded options

Sensitive; could reprice on the exercise date of the option particularly in rising interest rate scenario. To be placed in respective time buckets as per the next exercise date.

### **4. Deposits**

a) Term deposits from public

i) Fixed rate

Sensitive; could reprice on maturity or in case of premature withdrawal being permitted, after the lock-in period, if any, stipulated for such withdrawal. To be slotted in respective time buckets as per residual maturity or as per residual lock-in period, as the case may be. The prematurely withdrawable deposits with no lock-in period or past such lock-in period, should be slotted in the earliest /shortest time bucket.

ii) Floating rate

Sensitive; reprice on the contractual roll-over date. To be slotted in the respective time-buckets as per the next repricing date.

b) Certificates of deposits and ICDs

Sensitive; reprice on maturity. To be slotted as per the residual maturity in the respective time buckets.

### **5. Borrowings:**

a) Term-money borrowing

Sensitive; reprices on maturity. To be placed as per residual maturity in the relative time bucket.

b) Borrowings from RBI, Govt. & others

i) Fixed rate

Sensitive; reprice on maturity. To be placed as per residual maturity in the relative time bucket.

ii) Floating rate

Sensitive; reprice on the roll-over/ repricing date. To be placed as per residual period to the repricing date in the relative time bucket.

### **6. Current liabilities & provisions**

a) Sundry creditors )

b) Expenses payable ).

c) Swap adjustment a/c. )

d) Advance income received/receipts from borrowers pending adjustment ) Non-sensitive

e) Interest payable on )

f) bonds/deposits )

g) Provisions )

7. Repos/ bills rediscounted/forex swaps  
(Sell / Buy)

Sensitive; reprices on maturity. To be placed as per the residual maturity in respective buckets.

**ASSETS:**

1. Cash (incl. remittance in transit)
2. Balance with RBI

Non-sensitive.

Non-sensitive (since only current account is maintained with RBI).

**3. Balances with other banks in India**

- a) In current a/c.
- b) In deposit accounts, Money at call and short notice and other placements

Non-sensitive.

Sensitive; reprices on maturity. To be placed as per residual maturity in respective time-buckets.

**4. Investments**

- a) Fixed income securities (e.g. govt. securities, zero coupon bonds, bonds, debentures, cumulative, non-cumulative, redeemable preference shares, etc.)

Sensitive on maturity. To be slotted as per residual maturity.

However, the bonds/debentures valued by applying NPA norms due to non-servicing of interest, should be shown, net of provisions made, in:

- (i) 3-5 year bucket - if sub-std. norms applied.
- (ii) 5-7 year bucket - if doubtful norms applied.

- b) Floating rate securities

Sensitive; reprice on the next repricing date. To be slotted as per residual time to the repricing date.

- c) Equity shares, convertible preference shares, shares of subsidiaries/joint ventures, venture capital units.

Non-sensitive.

**5. Advances (performing)**

- a) Bills of exchange, promissory notes discounted & rediscounted

Sensitive on maturity. To be slotted as per the residual usance of the underlying bills.

- b) Term loans/corporate loans / Short Term Loans (rupee loans only)

Sensitive on cash flow/ maturity.

- i) Fixed Rate
- ii) Floating Rate

Sensitive only when PLR or risk premium is changed by the FIs.

The amount of term loans should be slotted in time buckets which correspond to the time taken by FIs to effect changes in their PLR in response to market interest rates.

**6. Non-performing loans:**

(net of provisions, interest suspense and claims received from ECGC)

- a) Sub-standard
  - b) Doubtful and loss
7. Assets on lease

)To be slotted as indicated at item B.7 )of Appendix I.

The cash flows on lease assets are sensitive to changes in interest rates. The leased asset cash flows be slotted in the time-buckets as per timing of the cash flows.

8. Fixed assets (excluding assets on lease)

Non-sensitive.

9. Other assets

a) Intangible assets and items not representing cash flows.	Non-sensitive.
b) Other items (e.g. accrued income, other receivables, staff loans, etc.)	Non-sensitive.
10. Reverse Repos/Swaps (Buy /Sell) and Bills rediscounted (DUPN)	Sensitive on maturity. To be slotted as per residual maturity.
11. <u>Other (interest rate) products</u>	
a) Interest rate swaps	Sensitive; to be slotted as per residual maturity in respective time buckets.
b) Other derivatives	To be classified suitably as and when introduced.