An Asset/Liability Management Overview
What Is Asset/Liability Management?

- Also known as asset-liability management, gap management
- Activity usually run in a Treasury Department of a bank
- Managed weekly or biweekly by a committee
- Activity began in late 1970s as a result of high and volatile interest rates
- Banks assume much interest rate risk since they borrow in one set of markets and lend in another
The Focus of ALM

- The focus is on interest rate risk/market risk.

- Sometimes, ALM refers to only the measurement and management of interest rate risk and liquidity risk.

- ALM system can help managers in defining interest rate management goals, measuring rate risk exposures, evaluating rate risk exposures, recommending strategies and actions that help achieve bank goals.
How is IRR governed?

Board of Directors

Credit Risk Committee

Finance Committee

CORC

ALCO

Corporate Treasury & Corporate Investments
Missions of the ALCO

The Asset/Liability Management Committee (ALCO) is one of the most important committee with your bank.

- Manage the balance sheet to achieve an optimal balance between risk and reward.
- Insulate the bank from the movement of market interest rates.
- Insure that the bank has adequate funding for earning assets (liquidity management).
- Keep the board informed as to the total risk profile of the bank with a quarterly risk profile report.
ALCO Membership

- Chief Executive Officer
- President
- Chief Financial Officer
- Treasurer
- Senior Investment Officer
- Asset/Liability Manager
- Senior Credit Officer
- Senior Branch Officer
- Senior Marketing Officer
ALM Policy

ALM policy defines the organization’s IRR objectives and establishes the general structure for achieving those objectives.

• Why do we need an ALM policy?
  – Bank regulators require it
  – Communicate management’s intentions and roles to everyone involved in the process
  – Establish specific objectives and responsibilities
  – Priority the goals (e.g., NAR vs. EVE) and coordination

• The elements of ALM policy
  – Limits for IRR exposure
  – Responsibilities for IRR measurement and management
  – A framework or basic set of requirements for logical, well-controlled procedures for both IRR measurement and management
ALM analytics

• Provide the comprehensive approach to measure IIR

• Determine the effect of interest rate changes on short-term net interest income, net income, and EVE

• Generate results for a range of probable interest rate environments

• Allow ALCO to look at “what if scenarios”
Two Ways to Understand Interest Rate Risk

• Accounting Perspective

- Changes in rates earned from adjustable-rate assets and new assets
- Changes in rates paid on adjustable-rate liabilities and new liabilities
- Changes in the amount and timing of asset and liability cash flows
- Changes in interest income
- Changes in interest expense
- Changes in net interest income, net income, capital, etc.

• Advantages: For the most part, boards of directors, industry analysts, and regulators look at reported earnings and the book value of the bank's balance sheet.
• Disadvantages: Focus on only the near-term effects of changes in interest rates.
Two Ways to Understand Interest Rate Risk

- Economic Perspective

  - Changes in appropriate Discount rates
  - Changes in the Present value of assets
  - Changes in net present value Or economic value of equity
  - Changes in the amount and timing of asset and liability cash flows
  - Changes in the Present value of liabilities

- Advantages: Focus on the sensitivity of the economic value of equity to changes in prevailing interest rates. This provides a comprehensive measurement of interest rate risk.

- Disadvantages: Tell a lot about the quantity of interest rate risk, but nothing about its timing. It is also subject to a large number of practical problems and must rely on a considerable number of subjective assessment factors.
Modeling IIR

• Earning-based risk
  – Net interest margin
  – Net income

• Capital-based risk
  – EVE
  – Regulatory capital

• Gap analysis
  – Repricing gap
  – Maturity gap
  – Duration gap

• Simulation analysis