ALCO In An Hour

VBA Management Development Program

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Accounting in 0:30

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Financial Statements

Road Map telling us about the firm's past, where it is now, and where it is headed in the future.

Bank Financial Statements

- Report of Condition – Balance Sheet
- Report of Income – Income Statement

Report of Condition
Balance Sheet

The Balance Sheet of a Bank shows its Assets, Liabilities, and Stockholders' Equity.

Accounting Equation

Assets = Liabilities + Owners' Equity

Balance Sheet Must Balance!

Balance Sheet

Assets = OWN

- Loans are Assets
- Assets are USES of funds
- Usually carried at original cost

Liabilities = OWE

- Debts or obligations
- Deposits are Liabilities
- Liabilities are SOURCES of funds

Stockholders’ Equity or Capital

- OWNERS

- Common Stock
- Paid in Capital
- Retained Earnings (Undivided Profits)
- Accumulated Other Comprehensive Income

Balance Sheet

- Loans are Assets
- Assets are <u>USES</u> of funds

- Deposits are Liabilities
- Liabilities are <u>SOURCES</u> of funds

Income Statement

The income statement lists all categories of income and expenses. This statement details the financial performance and determines the amount of profit (loss).

Income Statement

The Income Statement shows the cost to acquire funds and generate revenues from its uses.

How much we <u>paid</u> for deposits versus how much we <u>earned</u> on loans.

Income Statement Components

+	Interest Income
-	Interest Expense
=	Net Interest Income
-	Provision for loan losses
+	Non-interest income
-	Non-interest expense
=	Income before income taxes (pre-tax)
-	Income Taxes
=	Net income (loss)

What is ALCO?

Asset Liability Committee

Asset Liability Management

What Does ALCO Do?

Asset-Liability Management:

Determining and Measuring Interest Rates and Controlling Interest-Sensitivity

Asset-Liability Management

The purpose of Asset-Liability Management is to control a Bank's sensitivity to changes in market interest rates and limit its losses/maximize profits in its Net Income or Equity

ALCO Meeting Topics

- National and Local Economy
- Loan and Deposit Demand
- Investment Portfolio
- Monitoring Tools
- Policies

ALM GOALS

- Asset Liability Management is a management *process* with the goals of:
  - Maximizing and growing Net Interest Income
  - Minimizing and controlling financial risks
  - Maintaining adequate capital

Historical View of Asset-Liability Management

- Asset Management Strategy
- Took deposits for granted. Decision was "what asset do we invest the deposits?"

Historical View of Asset-Liability Management

- Liability Management Strategy
- Shift in thinking “Deposits aren’t the only way to fund loans. Let’s use sources with the cheapest price”

Historical View of Asset-Liability Management

- Funds Management Strategy
- More balanced theory today

Funds Management Strategy Objectives

- Control volume, mix, and cost of assets and liabilities
- Maximize spread between revenues and costs

Interest Rate Sensitivity Defined

Reflects the degree to which changes in interest rates can positively or adversely affect earnings or the economic value of equity.

When Market Interest Rates Change

- SO DO….
  - Loan Rates
  - Deposit Rates

Key Questions

- How quickly do loan and deposit rates change?
- Which side re-prices faster?
- What impact will this have on net interest income?

Interest-Sensitive Assets

- Short-Term Securities/Investments
- Variable-Rate Loans Made by the Bank to Borrowing Customers

Interest-Sensitive Liabilities

- Certificates of Deposit
- Money Markets Deposit Accounts
- Savings Deposit Accounts
- Variable-Rate Deposits

Interest Rate Risk

The Danger that Shifting Interest Rates May Adversely Affect a Bank's Net Income, the Value of its Assets or Equity

Asset-Sensitive Bank Has:

- Positive Dollar Interest-Sensitive Gap
- Positively Gapped = Asset Sensitive

Liability Sensitive Bank Has:

- Negative Dollar Interest-Sensitive Gap
- Negatively Gapped = Liability Sensitive

Understand Correlation
Asset Sensitive Banks

- Because assets re-price quicker than liabilities:
  - When Interest Rates <u>Increase</u>… Net Income <u>Increases</u>
  - When Interest Rates <u>Decrease</u>… Net Income <u>Decreases</u>

Understand Correlation Liability Sensitive Banks

- Because liabilities re-price quicker than assets:

  - When Interest Rates <u>Increase</u>… Net Income ___________

  - When Interest Rates <u>Decrease</u>… Net Income ___________

Understand Correlation Liability Sensitive Banks

- Because liabilities re-price quicker than assets:

  - When Interest Rates <u>Increase</u>… Net Income <u>Decreases</u>

  - When Interest Rates <u>Decrease</u>… Net Income <u>Increases</u>

Neutral Interest-Sensitive Gap

- Dollar Interest-Sensitive Gap is Zero
- When Interest Rates Change in Either Direction - NIM is Protected and Will Not Change

Measurement Tools

- GAP Analysis
- Simulation Modeling Example

Cumulative Gap

The Total Difference in Dollars Between Those Bank Assets and Liabilities Which Can be Re-priced over a Designated Time Period

Gap Positions and the Effect of Interest Rate Changes on the Bank

- **Asset-Sensitive Bank**
  - If Interest Rates Rise
    - Then NIM Rises
  - If Interest Rates Fall
    - Then NIM Falls
- **Liability-Sensitive Bank**
  - If Interest Rates Rise
    - Then NIM Falls
  - If Interest Rates Fall
    - Then NIM Rises

Aggressive Interest-Sensitive Gap Management

Expected Change in Interest Rates	Best Interest-Sensitive Gap Position	Aggressive Management's Likely Action
Rising Market Interest Rates	Positive IS Gap	Increase in IS Assets Decrease in IS Liabilities
Falling Market Interest Rates	Negative IS Gap	Decrease in IS Assets Increase in IS Liabilities

How Do Banks Respond to IRR?

- Asset-Liability Committee Manages

- Written Policies
  - $\pm$ 25% rate sensitivity

- Base decisions on expectations (pricing loans and deposits)

Important Decision Regarding Interest Sensitivity Gap

- Management Must Choose the Time Period Over Which NIM is to be Managed
- Management Must Choose a Target NIM
- To Increase NIM Management Must Either:
  - Develop Correct Interest Rate Forecast
  - Reallocate Assets and Liabilities to Increase Spread

NIM Influenced By:

- Changes in Interest Rates Up or Down
- Changes in the Spread Between Assets and Liabilities
- Changes in the Volume of Interest-Sensitive Assets and Liabilities
- Changes in the Mix of Assets and Liabilities
- Health Pandemic and PPP Loan Rates!

Problems with Interest-Sensitive Gap Management

- Interest Rate Attached to Bank Assets and Liabilities Do Not Move at the Same Speed as Market Interest Rates
- Point at Which Some Assets and Liabilities are Re-priced is Not Easy to Identify

Four Key Profitability Ratios in Banking

ROA

Indicator of managerial efficiency.

It tells how capable management is at converting assets to earnings.

Net Income / Average Assets

ROE

Measure of rate of return flowing to shareholders.

The benefit that stockholders have received from investing their funds in the company.

Net Income/Average Equity

Earnings Per Share

Income per share of common stock

Net Income/Average Shares Outstanding

Loan-to-Deposit Ratio

Measure of Liquidity

Net Loans/Total Deposits

EXCESS LIQUIDITY

BANKS ARE AMPTY LIQUID!

It is best to compare financial institutions of similar size.

UBPR

- The Uniform Bank Performance Report Provided by U.S. Federal Regulators so that Analysts Can Compare the Performance of One Bank Against Another

- Based on quarterly reports.

UBPR

- Interest Income
- Interest Expense
- Net Interest Income
- Net Income
- Comparison to Peer
- Asset Growth
- % of Cash Dividends Paid

Liquidity

The Availability of Cash in the Amount and at the Time Needed at a Reasonable Cost

Supplies of Liquid Funds (Sources)

- Incoming Customer Deposits
- Revenues from the Sale of Non-deposit Services
- Customer Loan Repayments
- Sales of Bank Assets
- Borrowings from the Money Market

Demands for Liquidity (Uses)

- Customer Deposit Withdrawals
- Credit Requests from Quality Loan Customers
- Repayment of Non-deposit Borrowings
- Operating Expenses and Taxes
- Payment of Stockholder Dividends

ALCO Decisions

- With Deficit -- must decide how to raise additional funds

- With Surplus – must decide how to invest and make profit

Essence of Liquidity Management

- There is a Trade-Off Between Liquidity and Profitability. The More Resources Tied Up in Readiness to Meet Demands for Liquidity, the Lower is the Financial Firm's Expected Profitability.

Why Banks and Their Competitors Face Significant Liquidity Problems

- Imbalances Between Maturity Dates of Their Assets and Liabilities Maturity Mismatch
- High Proportion of Liabilities Subject to Immediate Repayment
- Sensitivity to Changes in Interest Rates

ALCO Strategies for Liquidity

- Asset Liquidity Management or Asset Conversion Strategy
- Liability Management Strategy or Borrowed Liquidity
- Balanced Liquidity Strategy

Deposit Campaign

- Deposit Campaign to fund loans
- Brokered Deposits
- Public Funds

Deposits

1 source of funds at most banks

Two Key Issues

- Raise funds at the lowest possible cost
- Ensure enough deposits to support loans, investments, and withdrawals

Core Deposits

A Stable Base of Funds that is Not Highly Sensitive to Movements in Market Interest Rates and Which Tend to Remain with the Bank

Less vulnerable to swings in interest rates

How Do You Price Deposits?

Price to attract deposits
<u>AND</u> to remain profitable.

Sources of Borrowed Funds

- Federal Funds Purchased
- Securing Advance from the Federal Home Loan Bank
- Borrowing Reserves from the Discount Window of the Federal Reserve

Advances from the Federal Home Loan Bank Must Be A Member

- Allows Institutions to Use Home Mortgages as Collateral for Advances
- A Way to Improve the Liquidity of Home Mortgages and Encourage more Lenders to Provide Credit
- Maturities Range from Overnight to More than 20 Years
- FHLB Can Borrow Cheaply and Pass Savings to Institutions

Balanced Liquidity Management Strategy

The Combined Use of Liquid Asset Holdings (Asset Management) and Borrowed Liquidity (Liability Management) to Meet Liquidity Needs

Guidelines for Liquidity Managers

- Their Priorities and Objectives for Liquidity Management Should be Clear
- Liquidity Needs Must be Evaluated on a Continuing Basis   Cash Flow Projection

Conclusion

Q&A