

# A+ ACCOUNTING AND ALCO

## VBA Management Development Program

Michelle R. Austin



# TODAY'S SESSION AGENDA

Bank Financial Statements

Financial Ratios

UBPR

Worksheet

ALCO Policy and Agenda

Mock ALCO Meeting





# 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**

- **Statement of Condition  
Balance Sheet**
- **Income Statement**



# **REPORT OF CONDITION BALANCE SHEET**

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

# ACCOUNTING EQUATION

$$\text{Assets} = \text{Liabilities} + \text{Owners' Equity}$$

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 USES of funds

- Deposits are Liabilities
- Liabilities are SOURCES of funds

# INCOME STATEMENT

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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 paid for deposits versus how much we earned on loans.



# INCOME STATEMENT COMPONENTS

$$\begin{aligned} &+ \quad \text{Interest Income} \\ &- \quad \text{Interest Expense} \\ &= \quad \text{Net Interest Income} \\ &- \quad \text{Provision for loan losses} \\ &+ \quad \text{Non-interest income} \\ &- \quad \text{Non-interest expense} \\ &= \quad \text{Income before income taxes (pre-tax)} \\ &- \quad \text{Income Taxes} \\ &= \quad \text{Net income (loss)} \end{aligned}$$

# 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**

# LOAN-TO- DEPOSIT RATIO



Measure of  
Liquidity



**Net Loans/Total  
Deposits**



# EARNINGS PER SHARE

Income per share of common stock

**Net Income/Average Shares Outstanding**



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.

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

UBPR

# WHAT IS ALC?

Asset Liability Committee  
Asset Liability Management

# WHAT DOES ALCO DO?

## Asset-Liability Management:

Determines Interest Rates  
Measures Interest Rates and  
Controls Interest-Sensitivity

# ALCO POLICY



OBJECTIVE &  
PURPOSE



PROCEDURES



POLICY RISK  
LIMITS



LIQUIDITY  
PLAN



CAPITAL  
PLAN



INTEREST  
RATE RISK



STRESS  
TESTING

# ASSET-LIABILITY MANAGEMENT OBJECTIVE

Stability of the market value of Net Interest Income and Equity

Ensure sufficient liquidity

Pricing stability



# ASSET-LIABILITY MANAGEMENT PURPOSE

To control a Bank's sensitivity to changes in market interest rates

Limit its losses/maximize profits in its Net Income and Equity

Profit Planning

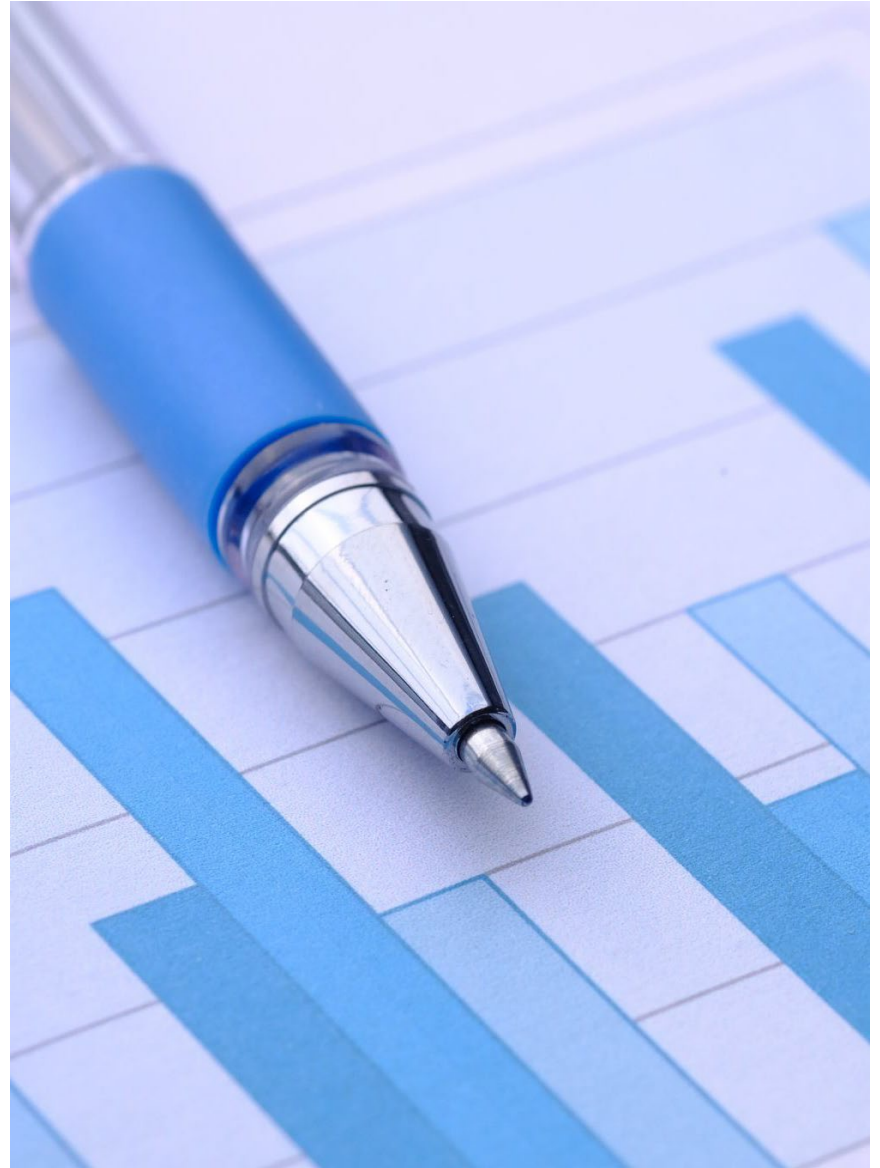
# ALM GOALS

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



# RESPONSIBILITIES

- Must manage routine and extraordinary fluctuations in interest rates
- Must remain Well Capitalized by BASEL III standards
- Must keep interest rate risk within regulatory guidelines
- Must have a plan when crisis circumstances appear



# ALCO COMMITTEE COMPOSITION

- Members
- CEO
- CFO
- Deposit Gatherers
- Lenders
- Senior Management

# ALCO MEETING TOPICS

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

# NET INTEREST SPREAD

	Total	Avg Rate
Loans	455,443	4.7481%
VISA Credit Cards	2,072	12.2925%
<b>Total Loans</b>	<b>457,516</b>	<b>4.7823%</b>
Investments	112,709	1.8093%
Fed Funds Sold	304	2.2000%
FRB Excess Reserve	125,747	2.4000%
<b>Total Other Investments</b>	<b>238,759</b>	<b>2.1209%</b>
<b>TOTAL ASSETS</b>	<b>696,274.4</b>	<b>3.8697%</b>
In Thousands		
Demand Deposits	348,014	0.0903%
Savings	113,894	0.1525%
Certificates of Deposit	187,248	0.7767%
Borrowings	-	0.0000%
<b>TOTAL LIABILITIES</b>	<b>649,156</b>	<b>0.2992%</b>
<b>Net Interest Spread</b>		<b>3.57%</b>

**EXCESS LIQUIDITY**

**BANKS ARE AMPTY  
LIQUID!**



# LIQUIDITY

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





# GUIDELINES FOR LIQUIDITY MANAGERS

Priorities and  
Objectives for  
Liquidity Management  
Should be Clear

Liquidity Needs Must  
be Evaluated on a  
Continuing Basis  
Cash Flow Projection

# 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

Customer Deposit  
Withdrawals

Credit Requests from  
Quality Loan Customers

Repayment of Non-deposit  
Borrowings

Operating Expenses and  
Taxes

Payment of Stockholder  
Dividends

## DEMANDS FOR LIQUIDITY (USES)

With Deficit --  
must decide how  
to raise  
additional funds

With Surplus —  
must decide how  
to invest and  
make profit

## ALCO DECISIONS

## 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.

# LIQUIDITY EARLY WARNING INDICATORS

Indicator	Quantified Metric for Warning	Actual	Management Comment
Loan-to-Deposit Ratio	>90%	98%	Above warning status but less than 100%; Improvement since 6-30-19 exam
Net Charge-Off Loss	>0.75% of total loans	0.06%	Excellent ratio. Low concern
Deposit Withdrawals	2.5% quarterly decrease in deposits or loss of significant customer	9.6% Annualized Growth Rate	Deposit growth exceeds budget expectations
Deterioration of earnings	5% below budget	12.06% under budget	Through 1/31, less than anticipated loan growth for January
Policy Liquidity Ratios	Cash $\geq 2.0\%$ Liquid Assets $\geq 10.0\%$ With Borrowing Capacity $\geq 15.0\%$	6.31% 9.07% 17.57%	In compliance FDIC expressed concern since less than 10% In compliance
FDIC Liquidity Exam Ratio	Desire $\geq 10\%$	8.90%	Under desired goal with plan of action in place to improve ratios

# 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



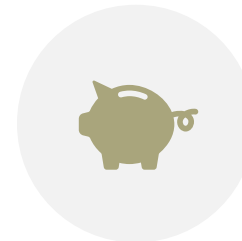
# DEPOSIT CAMPAIGN



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 AND  
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

# CASH FLOW PROJECTION EXAMPLES



In Policy



Out of Policy

# LIQUIDITY FUNDING SOURCES

- Fed Funds Overnight Purchase
- Deposit Listing Service
- FHLB Advances
- Brokered Deposits
- Sell Investments



# 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

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

**BALANCED LIQUIDITY  
MANAGEMENT STRATEGY**

# CAPITAL PLAN



Banks will maintain capital ratios that will allow it to adequately protect against risk of loss



the ability to withstand future crisis events



the ability to handle growth in assets.

# REGULATORY CAPITAL RATIOS

## Community Bank Leverage Ratios

Capital Ratio	Opt-In Required Ratio
Community Bank Leverage Ratio (2022)	<u>≥</u> 9.0%

## Traditional Capital Ratios (larger institutions)

Capital Ratio	Well Capitalized
Tier 1 Capital Leverage Ratio to Ave Assets	<u>≥</u> 5.0%
Common Equity Tier 1 to Risk-Weighted Assets	<u>≥</u> 6.5%
Tier 1 Capital to Risk-Weighted Assets	<u>≥</u> 8.0%
Total Capital to Risk-Weighted Assets	>10.0%

# CAPITAL CONTINGENCY PLAN

Dividend Payment  
Curtailment

Raising New Capital

Dividend Reinvestment  
Plan

Subordinated Debt

# STRESS TESTING

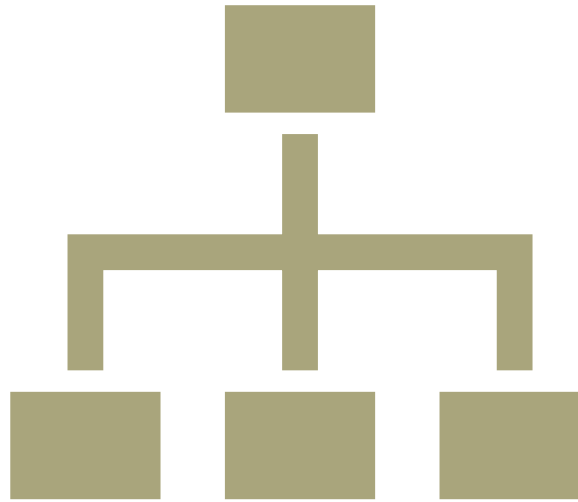


Liquidity Stress  
Test



Capital Stress  
Test

**STRETCH BREAK**



# ALCO MANAGEMENT



# 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”

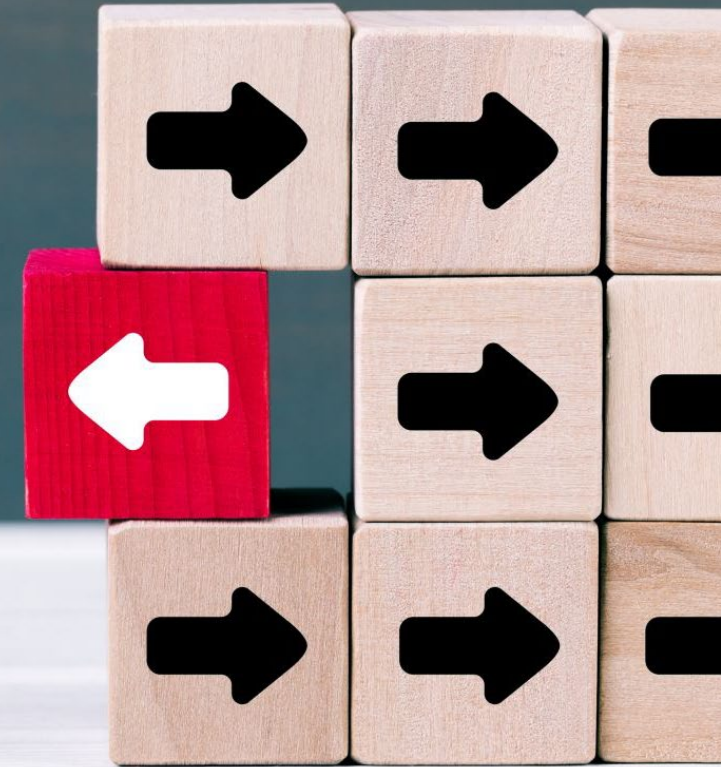
# HISTORICAL VIEW OF ASSET-LIABILITY MANAGEMENT

- Funds Management Strategy
- More balanced theory today



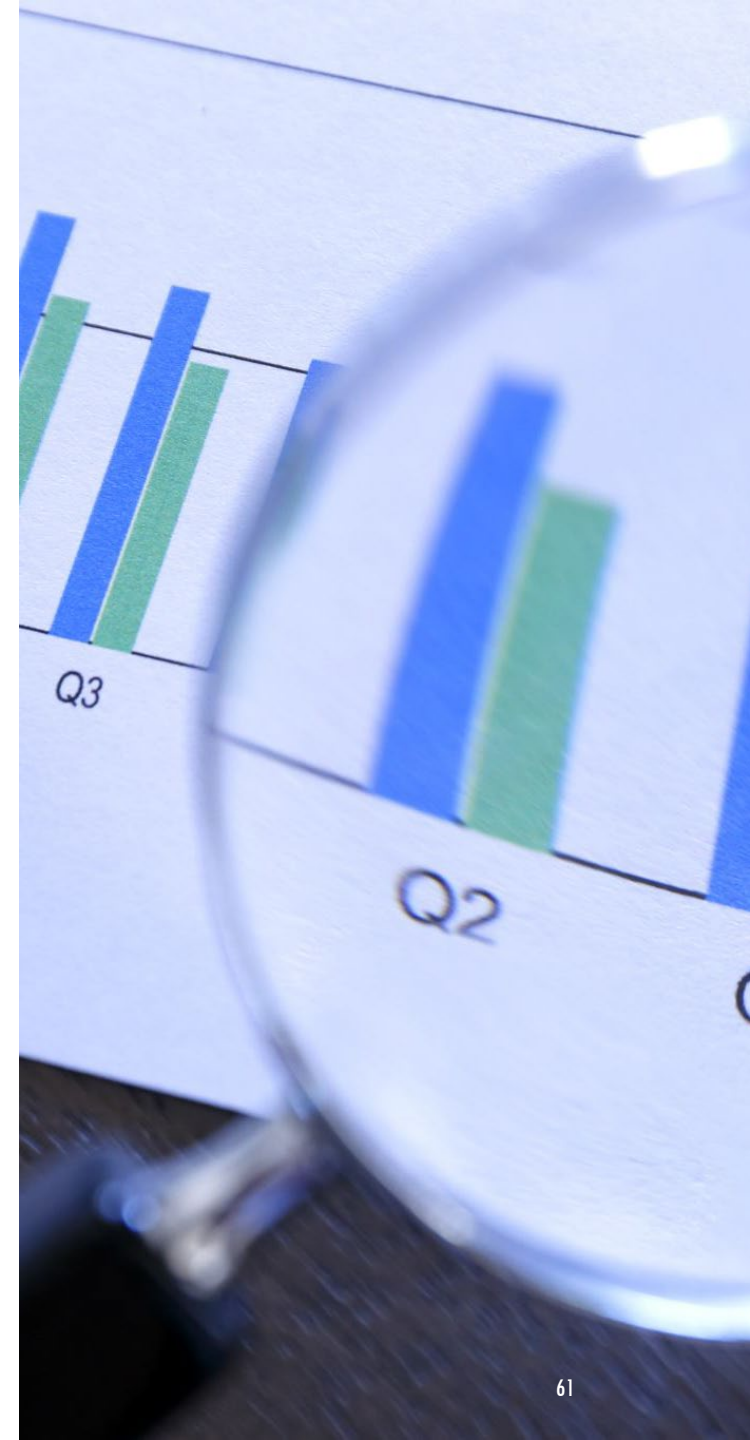
# FUNDS MANAGEMENT STRATEGY OBJECTIVES

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



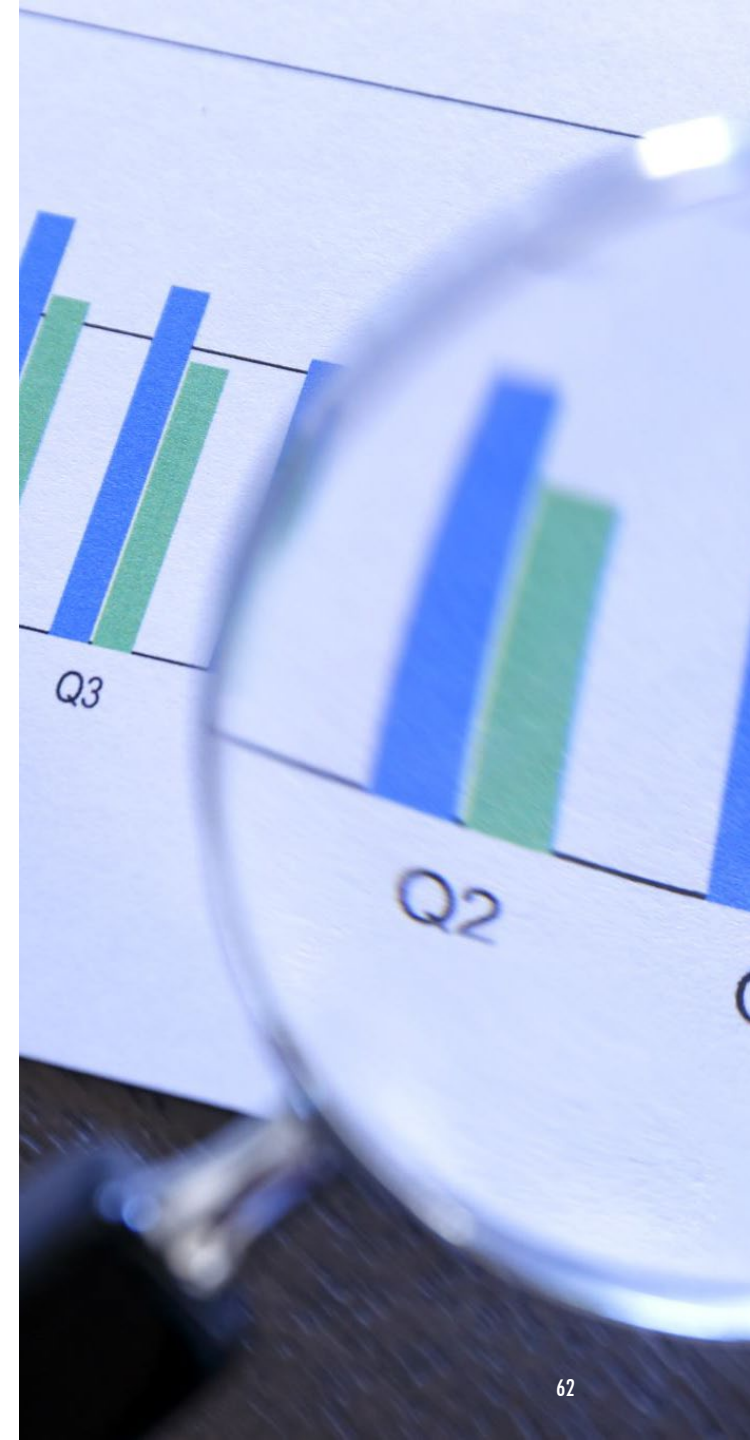
# INTEREST RATE RISK

IRR is the exposure to the Bank's current and future earnings and to the Bank's equity capital which can occur from dramatic and adverse movements in interest rates.



# 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.



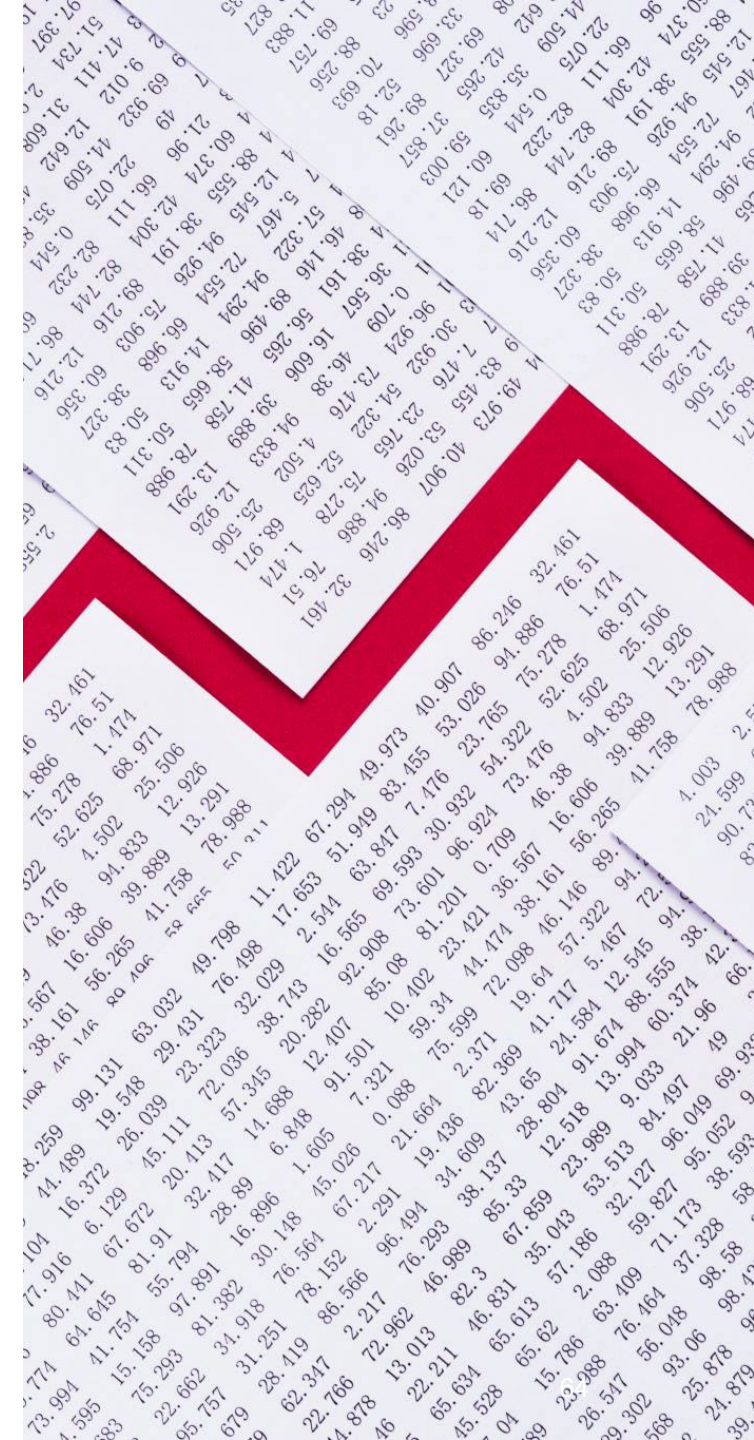
The Danger that Shifting Interest Rates May Adversely Affect a Bank's Net Income, the Value of its Assets or Equity

INTEREST RATE RISK



# 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



$$RSA - RSL > 0$$

# ASSET- SENSITIVE BANK HAS:

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





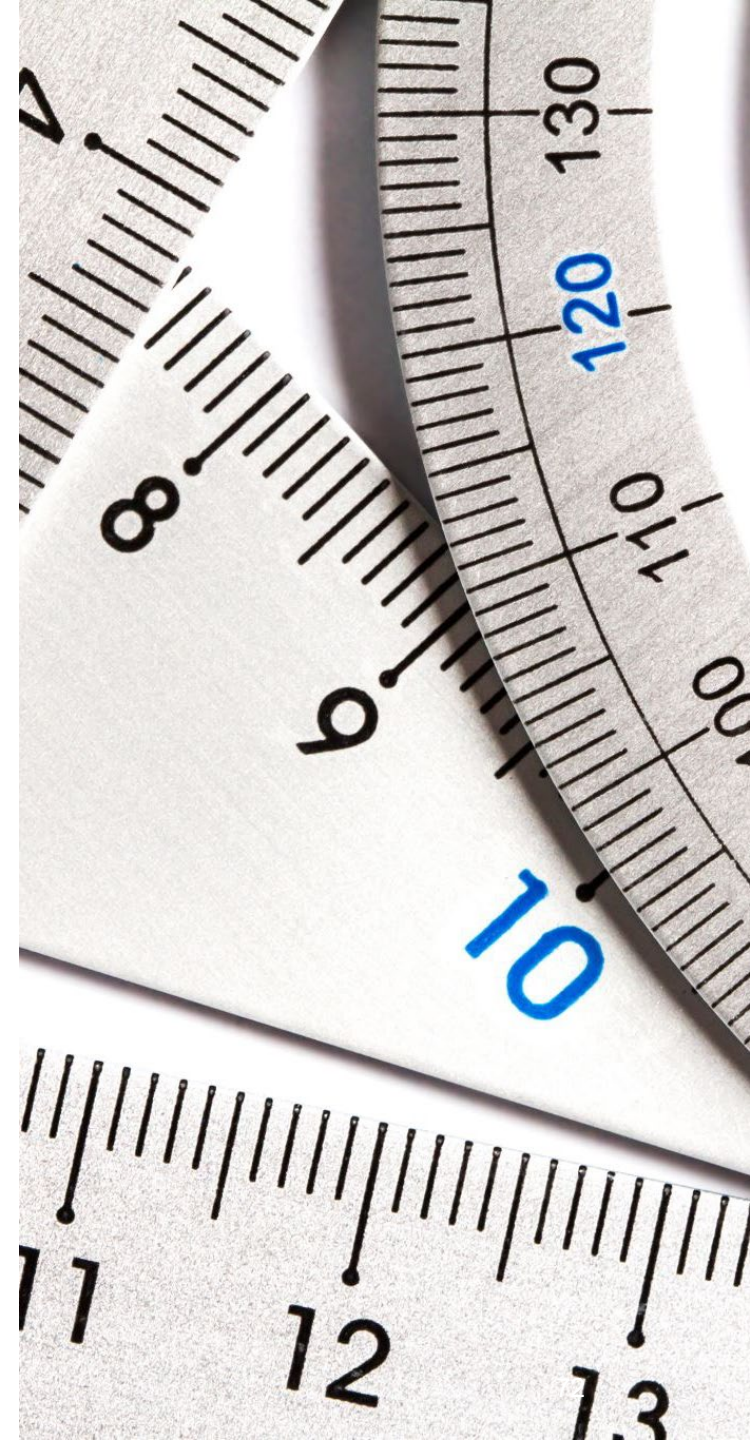
$$RSA - RSL < 0$$

# LIABILITY SENSITIVE BANK HAS:

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

# MEASUREMENT TOOLS

- Static GAP Analysis
- Cumulative Gap Position





# CUMULATIVE GAP

The total difference in dollars between those bank assets and liabilities which can be re-priced over a designated time period



# CUMULATIVE GAP MATH EXAMPLE

# UNDERSTAND CORRELATION ASSET SENSITIVE BANKS

- Because assets re-price quicker than liabilities:
- When Interest Rates Increase... Net Income Increases
- When Interest Rates Decrease... Net Income Decreases

# UNDERSTAND CORRELATION LIABILITY SENSITIVE BANKS

- Because liabilities re-price quicker than assets:
- When Interest Rates Increase... Net Income  
\_\_\_\_\_
- When Interest Rates Decrease... Net Income  
\_\_\_\_\_

# UNDERSTAND CORRELATION LIABILITY SENSITIVE BANKS

- Because liabilities re-price quicker than assets:
- When Interest Rates Increase... Net Income Decreases
- When Interest Rates Decrease... Net Income Increases

# 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

# NEUTRAL INTEREST-SENSITIVE GAP

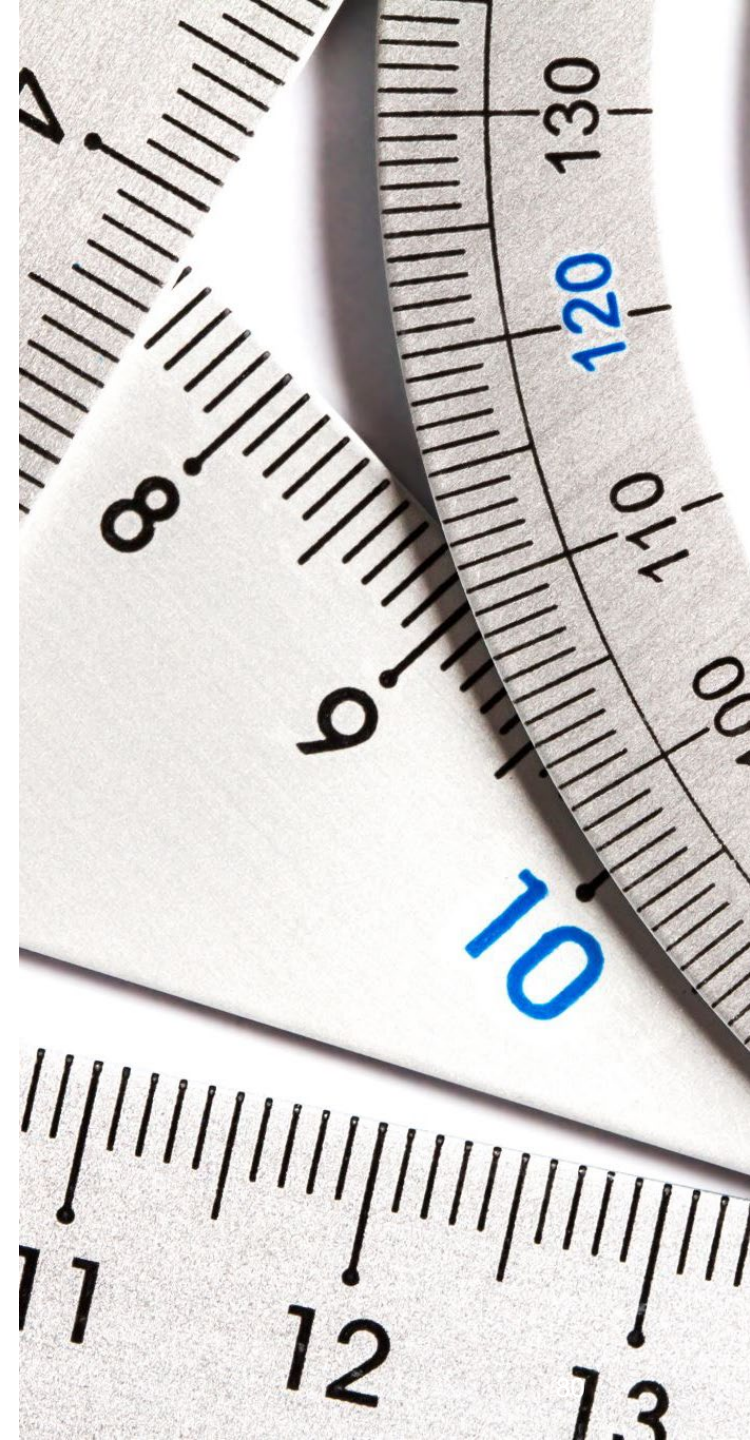
- Dollar Interest-Sensitive Gap is Zero

$$RSA-RSL = 0$$

- When Interest Rates Change in Either Direction - NIM is Protected and Will Not Change

# MEASUREMENT TOOLS

- Simulation Modeling Example



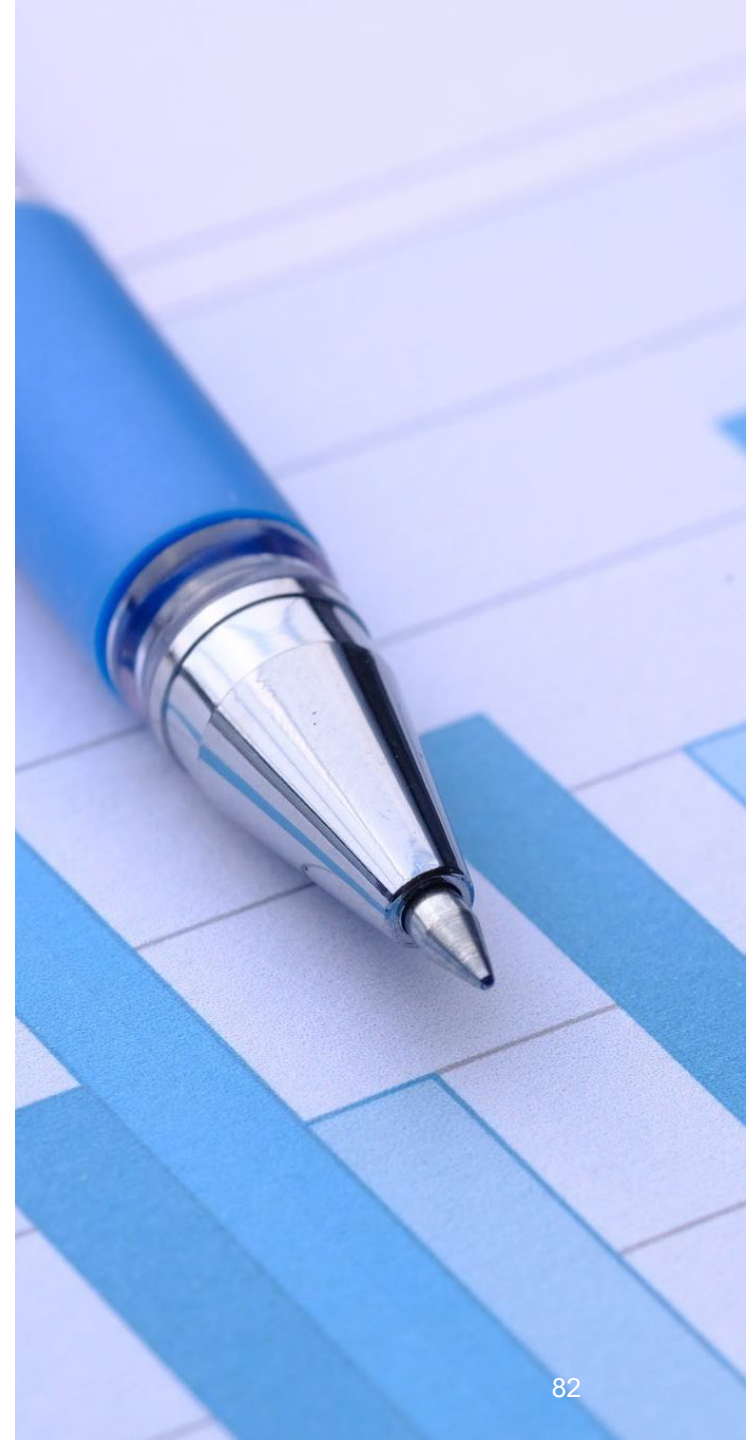


# AGGRESSIVE INTEREST-SENSITIVE GAP MANAGEMENT

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 ALCO COMMITTEES RESPOND TO IRR?

- 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

# MOCK ALCO MEETING



# CONCLUSION

Q&A