Sound Practices in Investment Portfolio and Asset-Liability Management

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Community Bankers Forum
Greensboro, North Carolina
March 9, 2010

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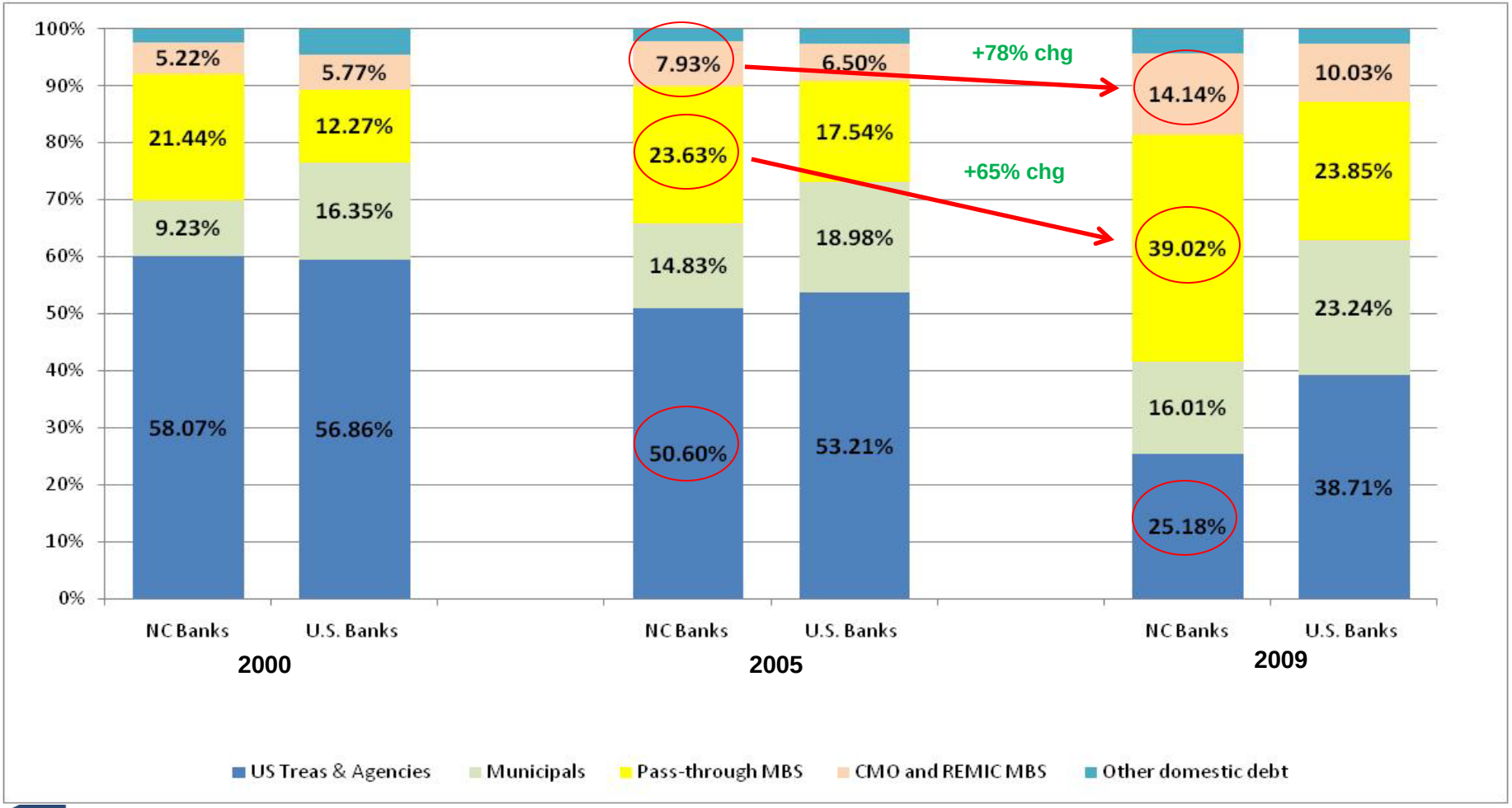
Agenda

- Discuss trends and risks in investment portfolios
- Regulator Concerns over Interest Rate Risk
- Sound practices for Investment and Asset-Liability Management
- Interest Rate Risk Considerations and Takeaways

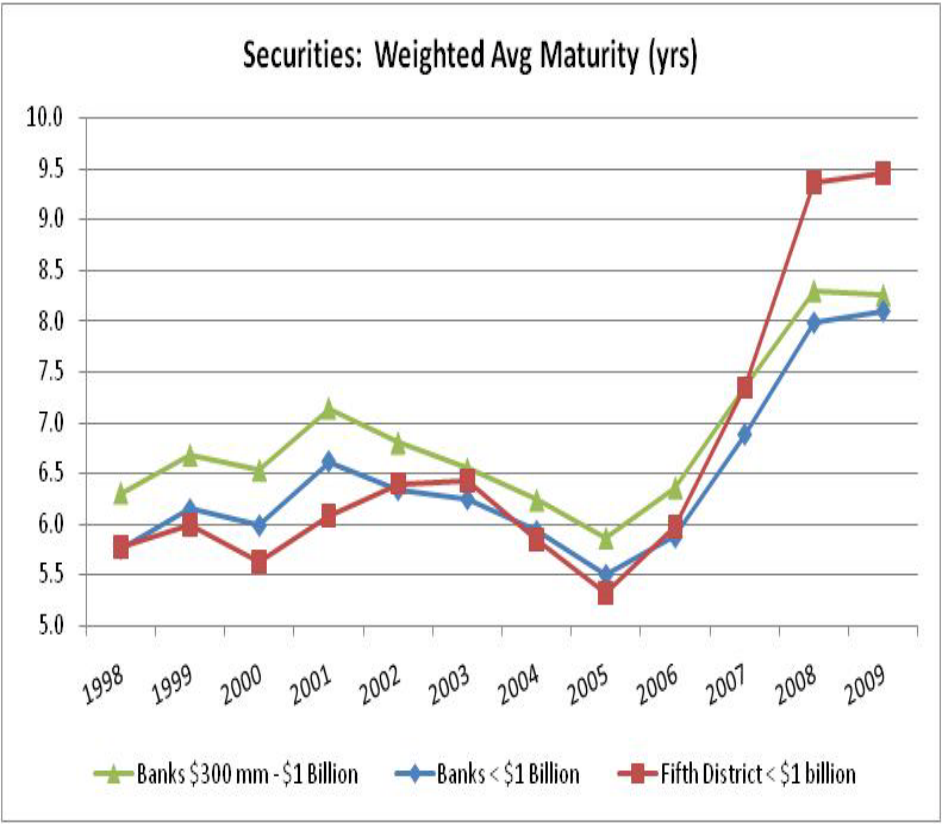
Trends and Risks in Investment Portfolios

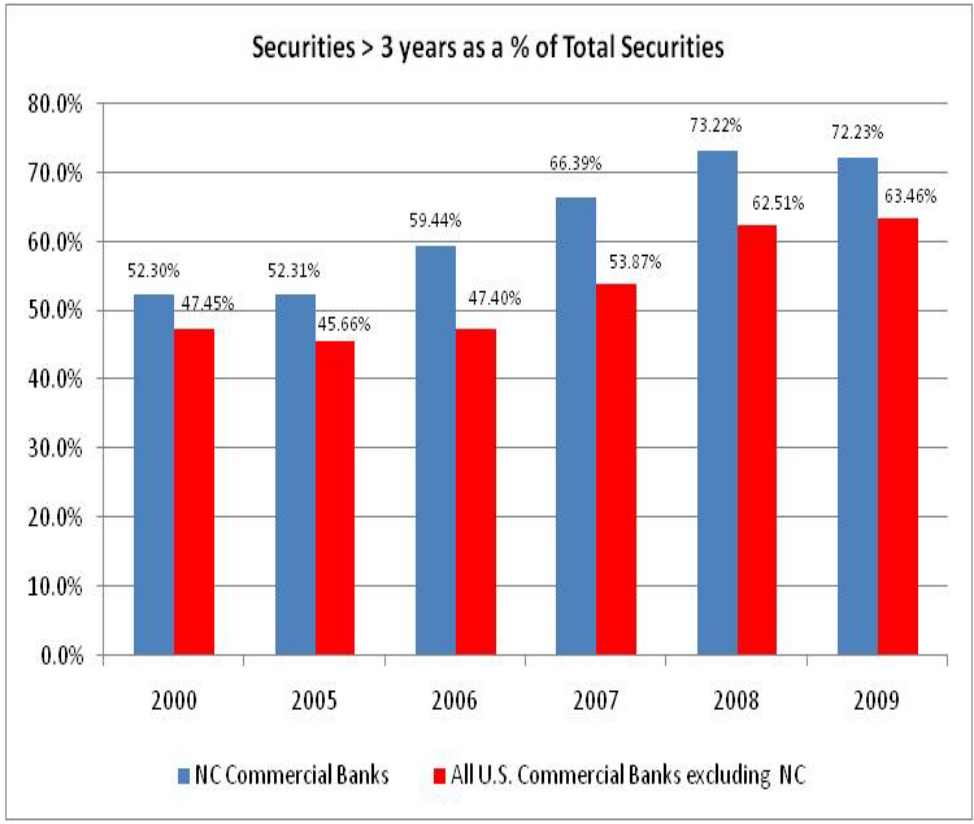
Credit Risk
Interest Rate Risk
Liquidity Risk

Shift in Composition of Investment Portfolios towards more complex products



Currently….we are seeing Investment Portfolios extending maturities and increasing holdings of longer-term securities



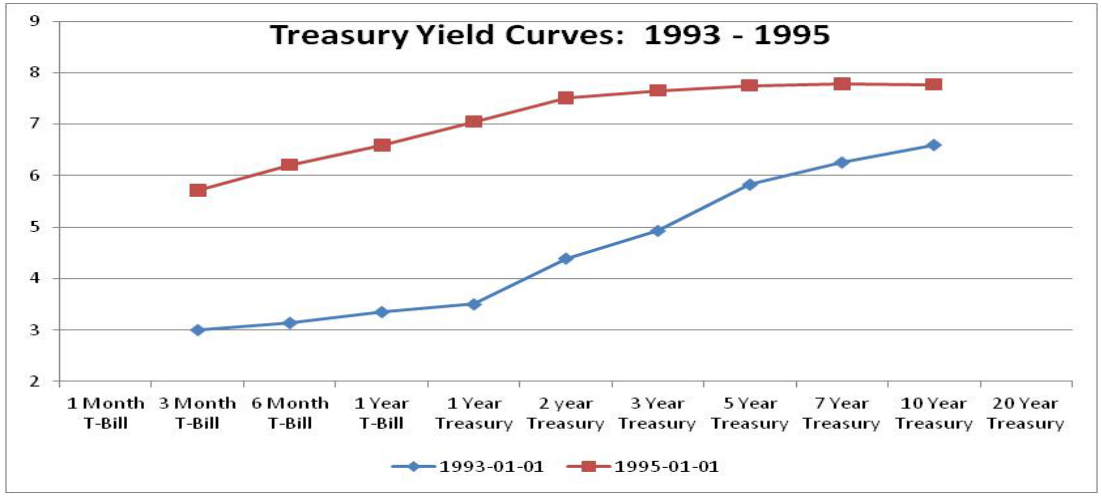


Investors in some Agency-issued structured products didn't fare so well in the mid-1990s

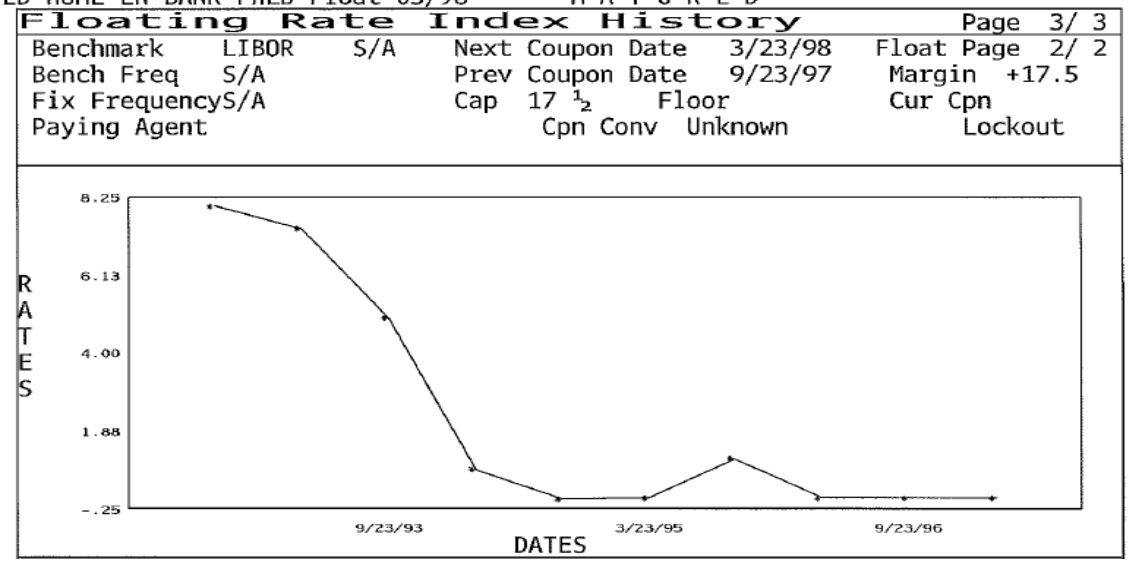
Structured Note: **Inverse Floater**

CPN Rate = 17.5% - (3 * 6M Libor)

Inverse 6Mo $Libor Indexed Bond



FED HOME LN BANK FHLB Float 03/98 M A T U R E D



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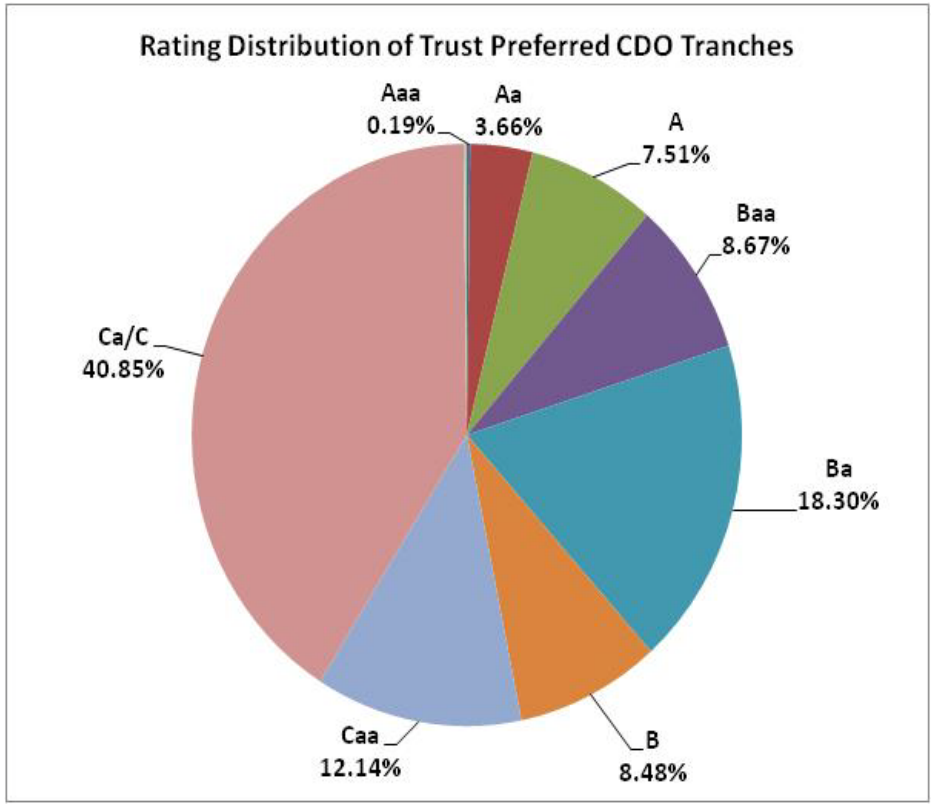
Many banks that invested in structured credit products have suffered in the current environment

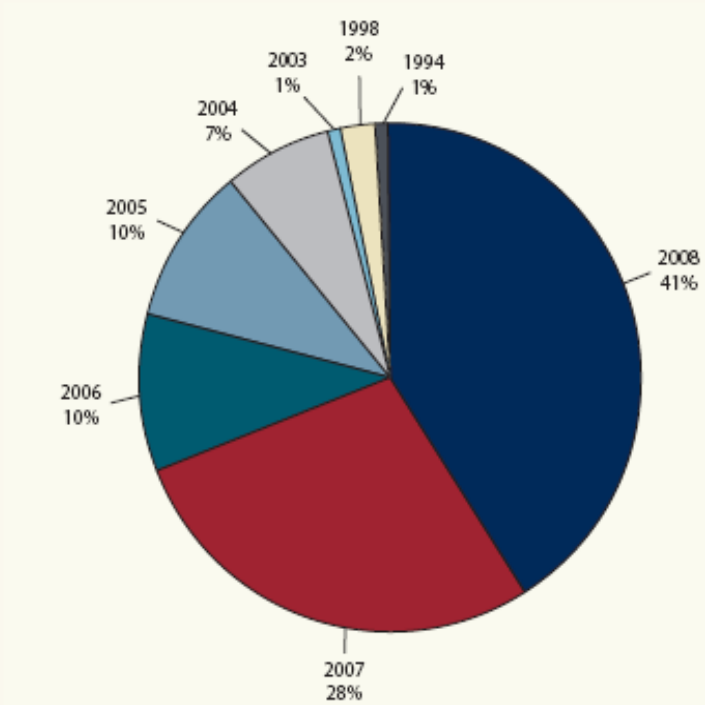
- Trust Preferred Securities and pooled CDOs
- Non-Agency Mortgage-Backed Securities
- Re-REMICs *– some brokers marketing as "insulated from downgrade"*

TruPS CDO Exposure to Deferring and Defaulted Securities				
	12/2007	6/2008	12/2008	6/2009
Average	0.48%	2.98%	7.10%	14.81%
Median	0.00%	5.29%	9.15%	13.99%



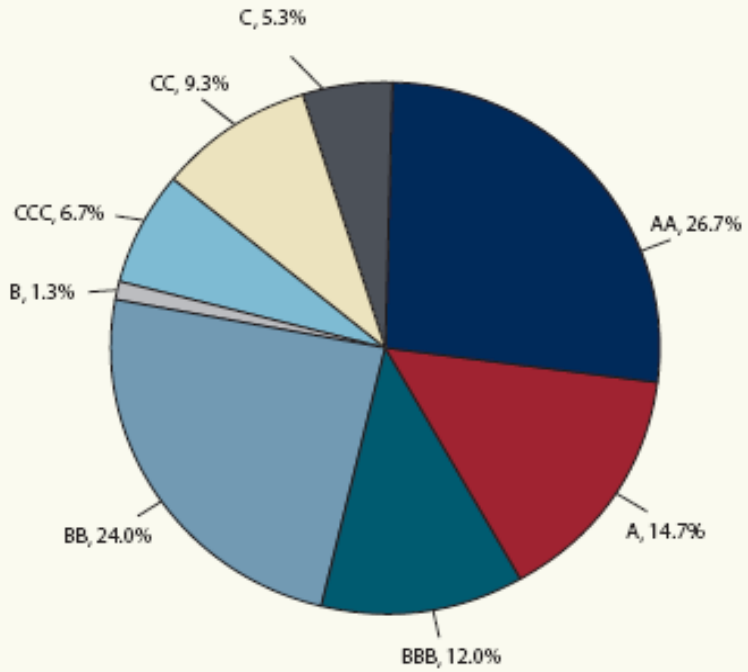
Fitch recently downgraded numerous re-REMIC bonds (November 2009)

Downgrades of RMBS Re-REMICs



Source: Chart represents breakout of Fitch downgrades of U.S. RMBS Re-REMICS taken on November 18,2009.

Downgraded AAA Re-REMICs



Source: Chart represents breakout of Fitch downgrades of U.S. RMBS Re-REMICS taken on November 18,2009.

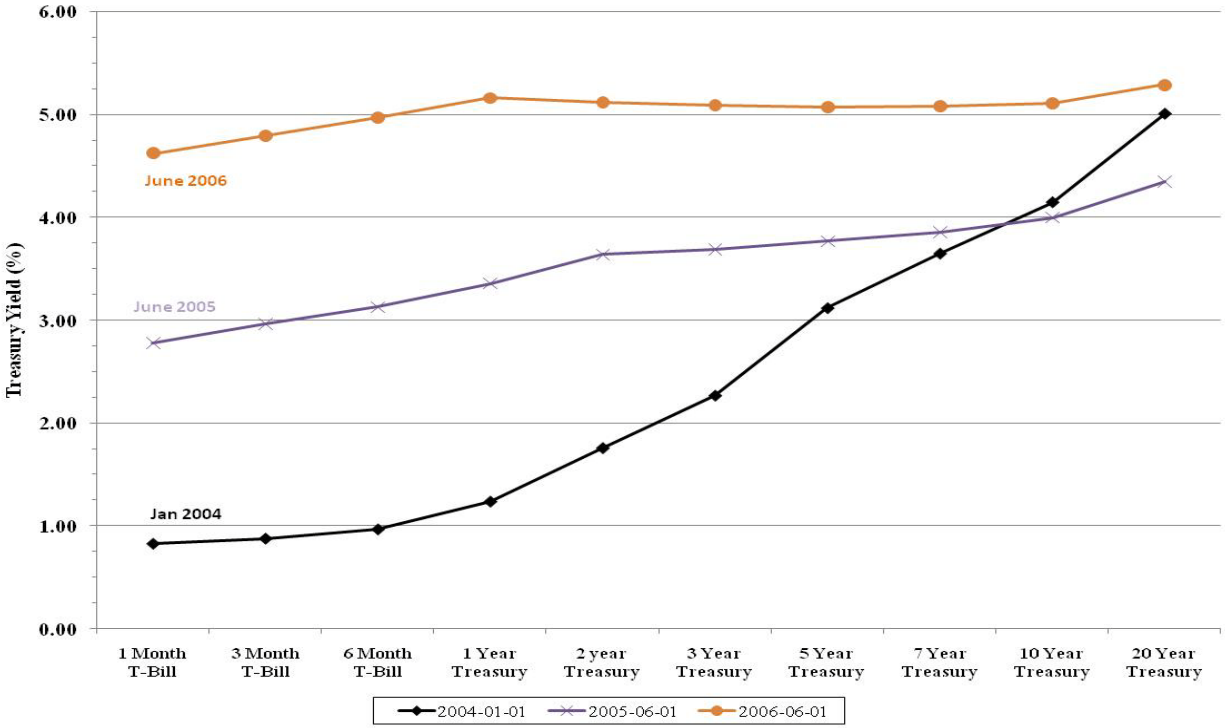
Risk Management Expectations with Structured Credit Investments

- Ability to identify, measure, and manage underlying credit dynamics
- Understand the nature and performance of underlying collateral and reconcile this information with model assumptions used to provide valuations
- Understand the specific positioning of a bond in the securitization's structure
- Understand the prioritization of cash flows and loss allocation methodology (i.e., "the Waterfall")
- Ensure compliance with OTTI requirements and assess the level of defaults required to suffer a loss
- Understand whether sufficient liquidity exists to retain securities to recovery
- Understand risk-based capital consequences for recourse and direct credit substitutes when external ratings deteriorate

Regulatory Concerns and Sound Interest Rate Risk (IRR) Management Practices

Yield Curve in Recent Recoveries: Different Patterns: 2004 - 2006

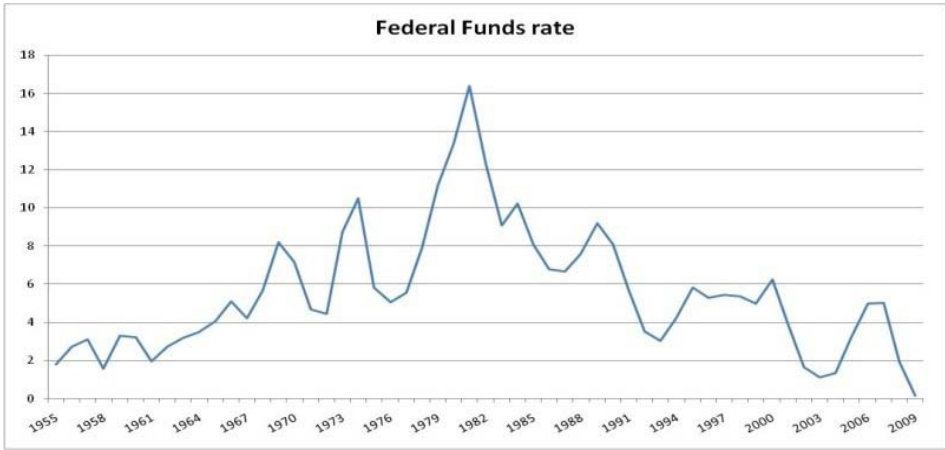
- 2004 – 06
  - June 2004 to June 2006, Fed Funds target raised from 1% to 5.25% in 17 steps
  - Yield curve began to flatten almost immediately
  - "Conundrum" of flat long term rates as short term rates increased
  - In late 2005 rates rose across the maturity spectrum but parts of the curve were inverted
  - From 2004 to 2005, aggregate NIMs fell 28 bps



It is difficult to project the shape and timing of future yield curve movements. We must identify our vulnerabilities and simulate various <u>adverse</u> scenarios (not most likely scenarios) and the effect on earnings and capital!

IRR Management Considerations……

- Balance sheet structures are critical in this environment
- ALCOs need to be more proactive
- Manage, monitor and establish risk tolerances for your exposures
  - *How much earnings and capital are you willing to bet …… just for IRR*
- Evaluate adverse changes in EVE to measure long-term earnings and capital exposures
  - *EVE gives management a way to identify impaired asset and economic equity values that suggest a greater potential for income problems down the road*
- Assess IRR exposures to greater changes in magnitude (+/- 300 and 400 bps)
- Stress a static balance sheet (no growth)
- Build IRR model assumptions that reflect the uniqueness of the bank, market conditions, and trends
  - *Assumptions about non-maturity deposits are key!*
  - *Independent review of model output and assumptions*



- ***"…the response of interest rates across the maturity spectrum in an actual or expected tightening of monetary policy is always hard to predict, but is especially so in current circumstances." Governor Kohn speech at the FDIC Interest Rate Risk Symposium, Jan. 29, 2010***

Regulators expect all institutions to manage their IRR exposures using processes and systems commensurate with their earnings and capital levels, complexity, business model, risk profile, and scope of operations.

Conclusions

- Earnings and capital are under pressure
- While earnings are suffering, liquidity management needs to continue to be a focus
- Underlying credit issues could become even more pronounced as interest rates increase
- Funding costs will not stay low forever
- Given this pressure and continued shrinking of loan portfolios, incentives to take more long-term risk and 'structure' risk may increase
- At some point, interest rates will rise and the yield curve will shift…..

The question is…….when and how much….and how will changing interest rates affect your bank's earnings and capital?

APPENDIX

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Examiner Tips - Common IRR Findings

- Lack of independent review / annual backtesting of earnings model
- Insufficient Board reporting
- Lack of ALCO minutes detail
- Risk limits not commensurate with the institution's risk tolerance
- Assumptions not customized for the institution
  - Particularly non-maturity deposit assumptions and the pricing sensitivity of these deposits relative to changes in market rates (i.e., deposit betas)
- Inadequate policies and procedures
- Risk limits not established
- IRR Model failure to capture optionality

How do we rate the “S” component in CAMELS

- Quantity/Level of risk <u>and</u> Quality of Risk Management
- Risk exposure relative to earnings and capital
- Importance of Board and Senior Management Oversight
- Comprehensive risk management process
  - Policies, Procedures, and Limits
  - Risk identification, measurement, and reporting
  - MIS reporting
  - Internal controls

Sound Investment and Interest Rate Risk Policies

- Objective
- Investment Authority and Limitations
- List of Approved Brokers
- Maturity Limitations
- Diversification Guidelines
- Quality of Investments
  - Credit Standards
  - Volatility
- Exception Procedures
- Reporting Requirements
- OTTI Process

- Purpose – *i.e., "maintain consistent earnings or capital…..independent of rate movements"*
- Measurements of Risk
  - Earnings at risk (net interest income simulations)
  - Economic Value of Equity
- Policy limits on risk
- Policy Exceptions and Correcting Deficiencies
- Information and Communication
  - Description of reports to management, ALCO, Board, etc.
- Delegation of responsibility and authority
- Description and Responsibilities of Governance Committees (e.g., ALCO)
- Management Oversight and Control

"S" Component Ratings - Definitions

"1" indicates that market risk sensitivity is well controlled **and** that there is minimal potential that earnings performance or capital position will be affected by adverse movements in interest rates. Risk management practices are strong. Level of earnings and capital provide substantial support for the degree of market risk taken.

"2" indicates that market risk is adequately controlled **and** there is moderate potential that earnings or capital will be affected by an adverse movement in rates. Risk management practices are satisfactory. The level of earnings and capital provide adequate support for the degree of market risk taken.

"3" indicates that control of market risk sensitivity needs improvement **or** that there is significant potential that earnings or capital will be affected by adverse movements in interest rates. Risk management practices need improvement. The level of earnings and capital may not adequately support the degree of market risk taken.

"4" indicates that control of market risk sensitivity is unacceptable **or** that there is high potential that earnings or capital will be affected by an adverse movement in interest rates. Risk management practices are deficient. Level of earnings and capital provide inadequate support for the degree of market risk taken.

"5" indicates that control of market risk is unacceptable **or** that the level of market risk taken is an imminent threat to the institution's viability. Risk management practices are wholly inadequate.

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