Managing Interest Rate Risk in a Rising Rate Environment

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CALL THE FED

Federal Reserve Bank of San Francisco, Division of Banking Supervision & Regulation

Today's Presenters

Wallace Young

Mr. Young is Director of the Risk Coordination Unit at the Federal Reserve Bank of San Francisco. He joined the Reserve Bank in 1999. In his current capacity, Mr. Young oversees a team of Risk Coordinators that are responsible for monitoring key banking risks and supervisory issues, providing guidance and consultative services to supervisory staff, and working with counterparts throughout the Federal Reserve System to develop and deploy regulatory and examiner guidance.

Jeffrey Plaskett

Mr. Plaskett is a Senior Examiner and Market & Liquidity Risk Coordinator at the Federal Reserve Bank of San Francisco. He has over fifteen years of regulatory experience, covering market and liquidity risk issues at community, regional, and large financial institutions. He also previously chaired the Federal Reserve's Market Risk Coordinator Affinity Group. In his current role, Mr. Plaskett is responsible for monitoring emerging interest rate, market, and liquidity risks in the 12th District.

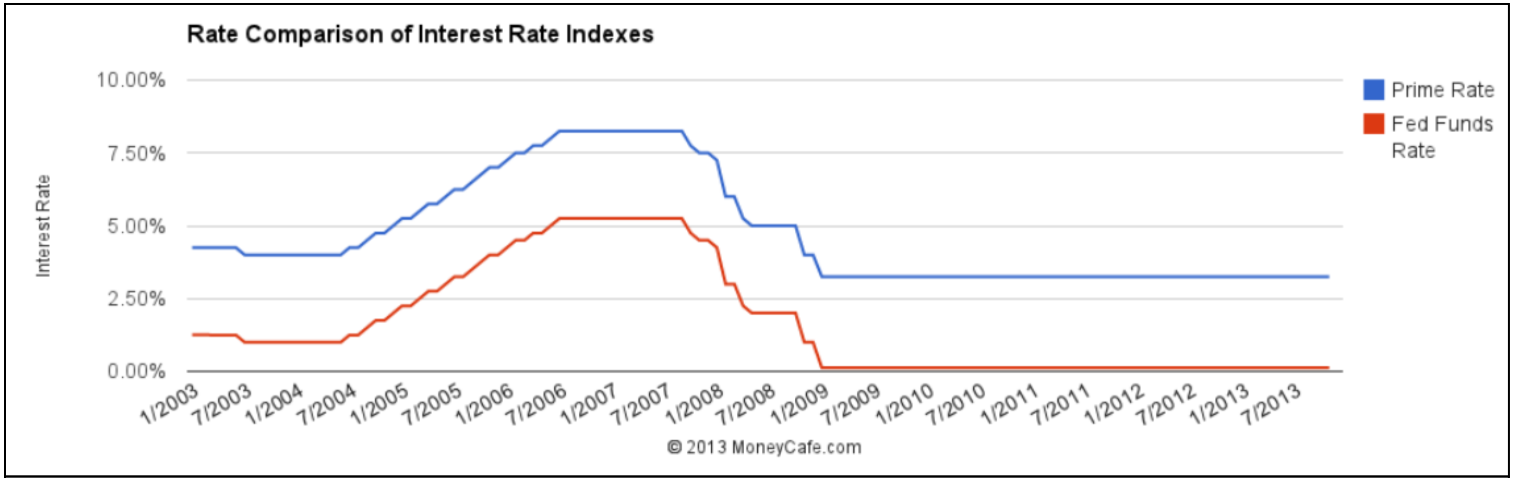
Agenda

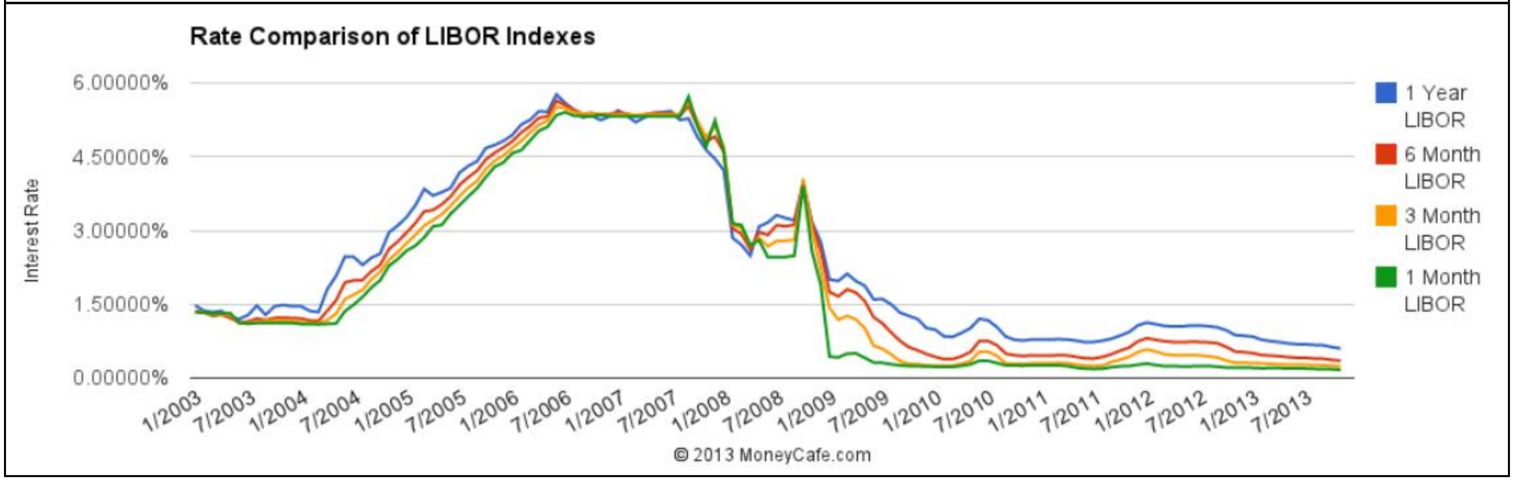
- Why is Interest Rate Risk a growing concern?
- Why are assumptions becoming more important?
- What should bank management teams be doing about this issue?

A Q&A Session will Follow the Prepared Remarks

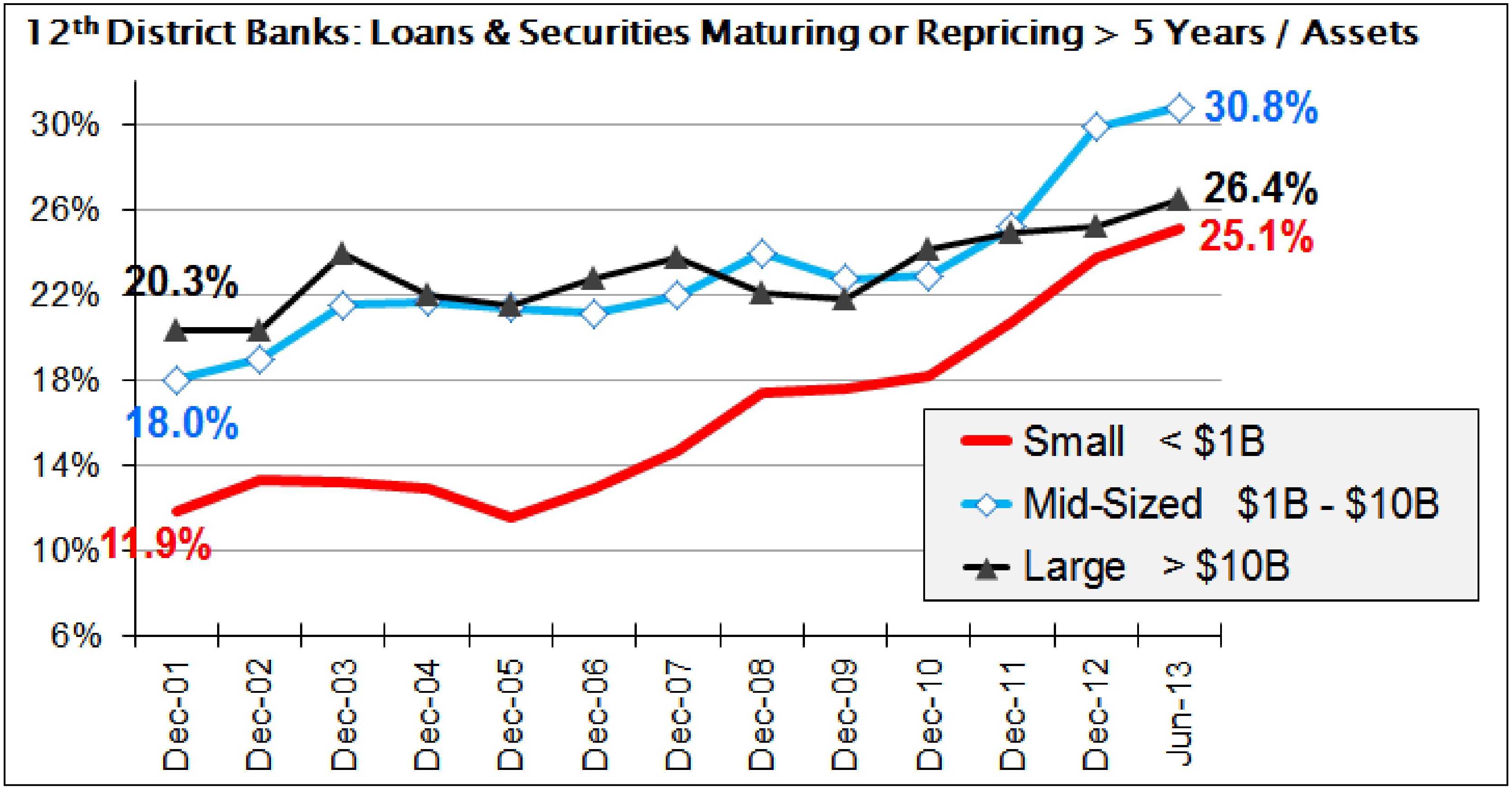
Why is Interest Rate Risk a growing concern?

Short Term Rates Remain Low and Stable

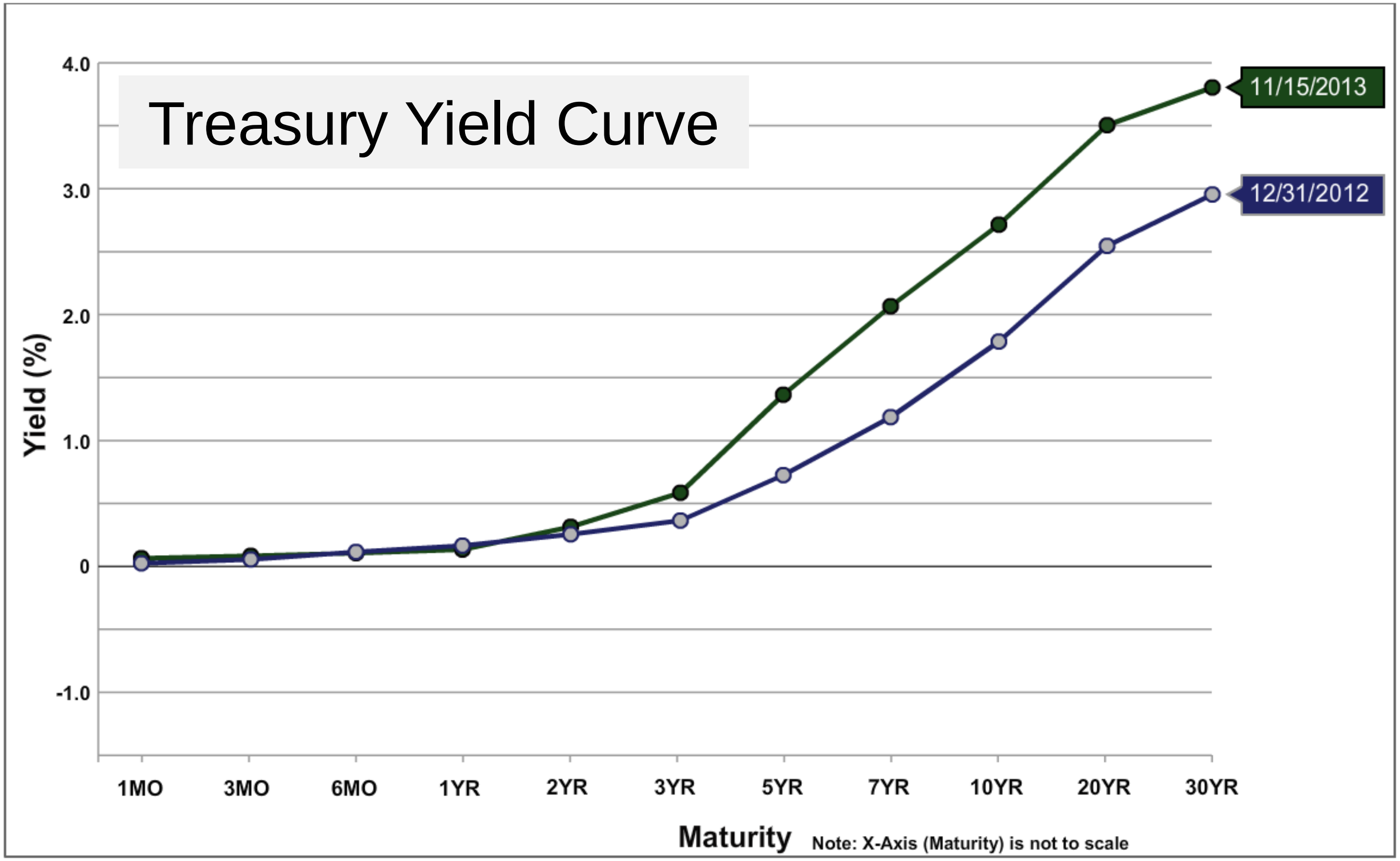




Banks are Going Longer-Term in "Search for Yield"

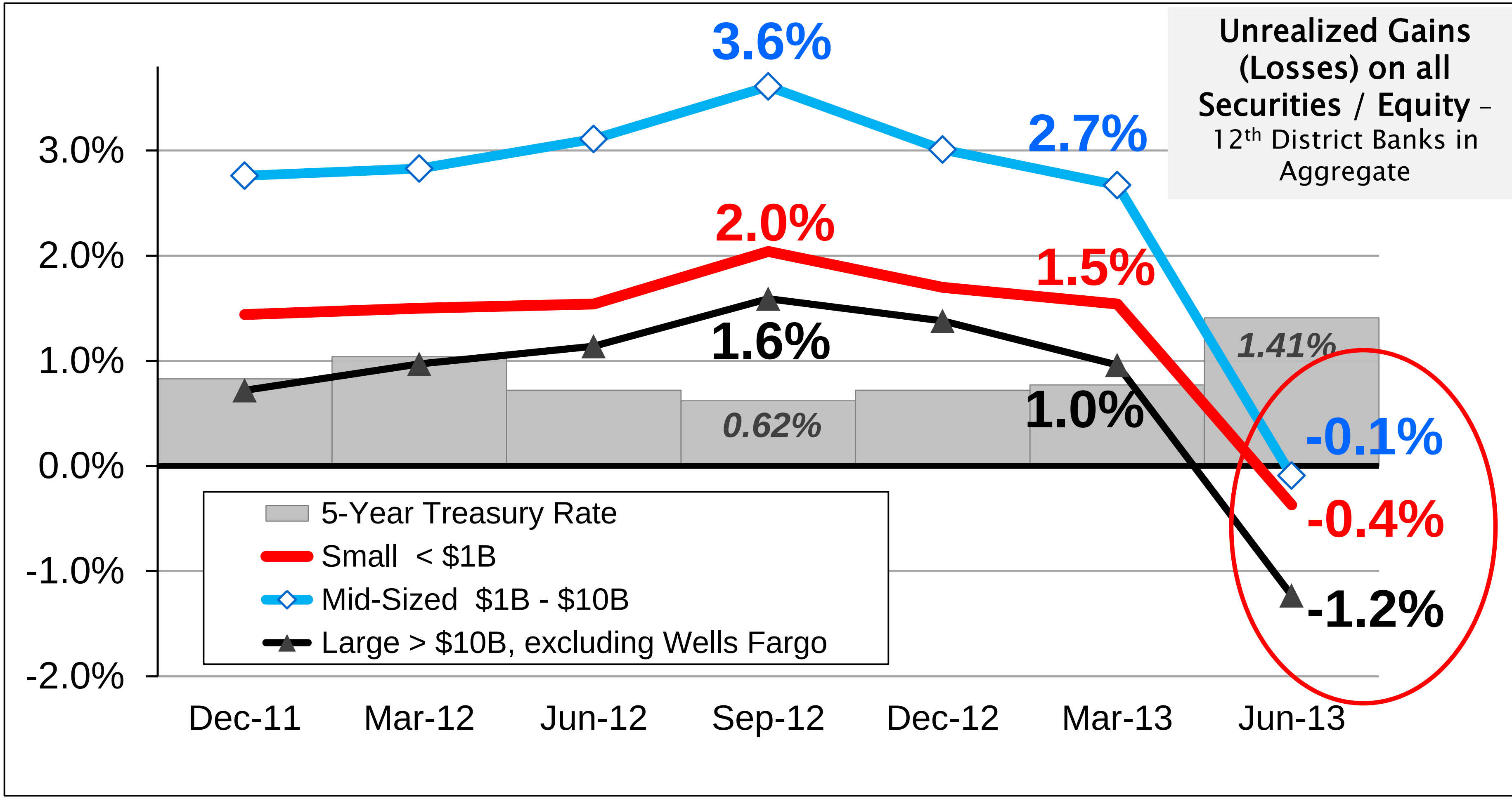


Long Term Interest Rates are Increasing



Source: www.treasury.gov

Investment Portfolios are Declining in Value



Earnings-at-Risk

Measures extent to which a change in interest rates will reduce a bank's Net Interest Income.

According to their own models, most banks are positioned to benefit from rising rates. ***But***, this is largely dependent on many important assumptions.

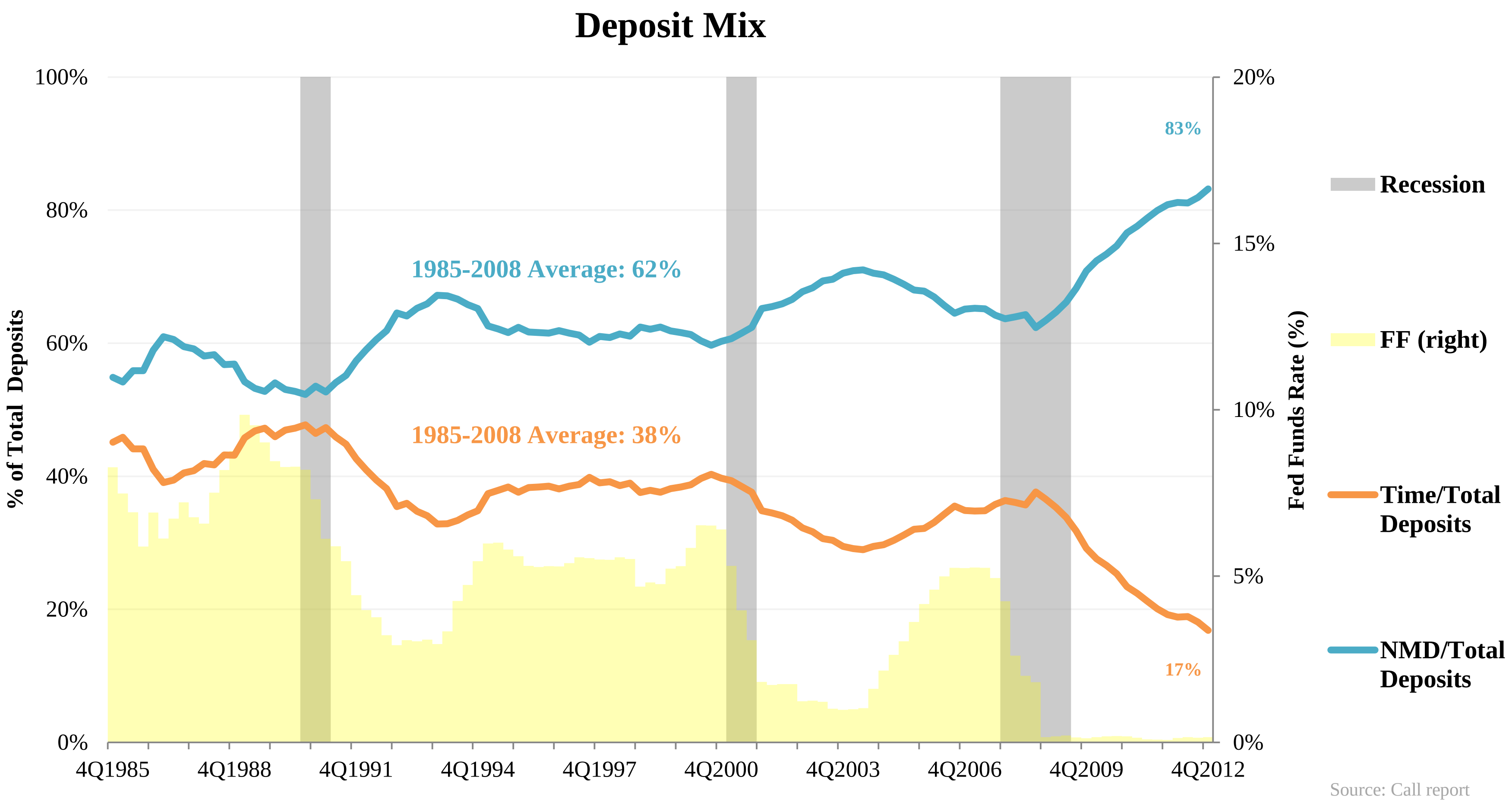
Capital-at-Risk

Measures extent to which a change in interest rates will reduce a bank's Economic Value of Equity (EVE).

Unrealized losses are only realized when the bank sells the investment. ***But***, unrealized losses do limit the bank's flexibility and ability to generate liquidity.

Why are assumptions becoming more important?

Deposit Growth & Mix



Deposit Assumptions

- Deposit assumptions have a significant impact on Interest Rate Risk measurements.
- The current environment may provide misleading data for banks if data trends are not properly analyzed.

Assumption	Definition
Beta	**Relative repricing rate assumed for deposits versus a benchmark rate**
Account Balance	**Projected balances assumed over a stated time horizon**
Deposit Mix	**Relationship between fixed vs. floating interest bearing accounts**

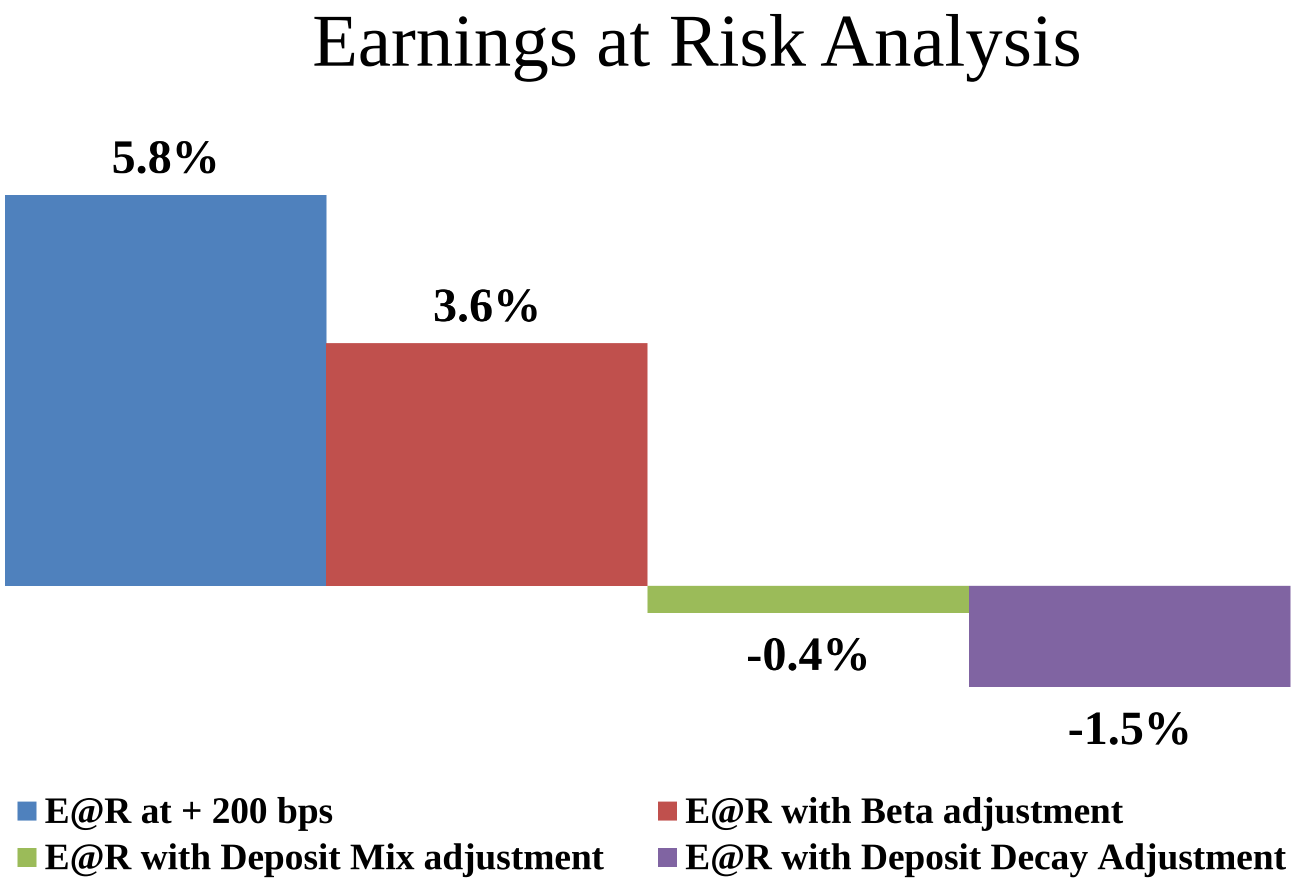
Case Study

- Sample Bank has historically funded its operations with core deposits.
- Deposit mix has shifted dramatically toward non-maturity deposits over the last few years, which have seen above historical average deposit growth.
- Asset side of the balance sheet has seen growth in investment portfolio (primarily Mortgage Backed Securities) and fixed rate loan portfolio.
- The bank calculates its Earnings at Risk (E@R) exposure to a parallel 200 basis point rise in rates to be positive **5.8 percent** (an increase to net interest income).

Case Study

- How do changes to key deposit assumptions affect Sample Bank's E@R?
  - **Betas:** Increase institution's assumed repricing rate on non maturity interest bearing deposits by 20%
  - **Account Balance:** Project impact of a 10% decline in noninterest bearing deposits
  - **Deposit Mix:** Reallocate the mix of total domestic deposits back to 2000-2008 period of Time/Non-maturity Deposits

Case Study


Earnings at Risk Analysis
5.8%
3.6%
-0.4%
-1.5%
E@R at + 200 bps
E@R with Beta adjustment
E@R with Deposit Mix adjustment
E@R with Deposit Decay Adjustment

What should bank management teams be doing about this issue?

1. Conduct critical reviews of assumptions used in interest rate risk measurement process.

   Focus on non-maturity deposits.

Q:

How will “surge” deposits behave?

2. Stress test your assumptions.

Pay more attention to those assumptions that are more significant to the outcome.

Q: If we changed this assumption "X%" what is impact on overall exposure?

3. Evaluate impact to interest rate risk when making investment decisions.

   Determine if the proposed security will increase or decrease interest rate risk, prior to making the purchase decision.

Q:

Is that small, additional yield worth the extra interest rate risk?

4. Validate your interest rate risk modeling process.

   Important models and risk management systems should be subject to ongoing, periodic validation and audit.

Q: How confident are you that your interest rate risk measurement process is working?

5. Ensure robust discussions with the Board.

Ensure the Board of Directors fully understand the institution's risk exposure.

Q: Do the directors understand how interest rate changes will impact the institution's earnings and financial condition?

For further information and resources:

- Joint Policy Statement on Interest Rate Risk (May 23, 1996)
- Interagency Advisory on Interest Rate Risk Management (January 6, 2010)
- Interagency Advisory on Interest Rate Risk Management Frequently Asked Questions (January 12, 2012)

http://www.federalreserve.gov/bankinforeg/topics/market_risk_mgmt.htm

Let's Take Some Questions …

Thank you!