

Interest Rate Risk Management: What Examiners Expect

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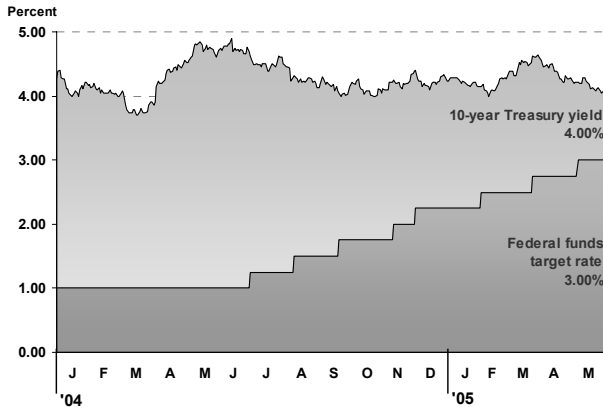
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Agenda

- The current environment
- What examiners do:
 - *Offsite*
 - Scoping
 - *Onsite*
 - What we look at
 - What are some red flags
- Resources

The yield curve continues to flatten

Flattening of the yield curve continues
(May 31, 2005)

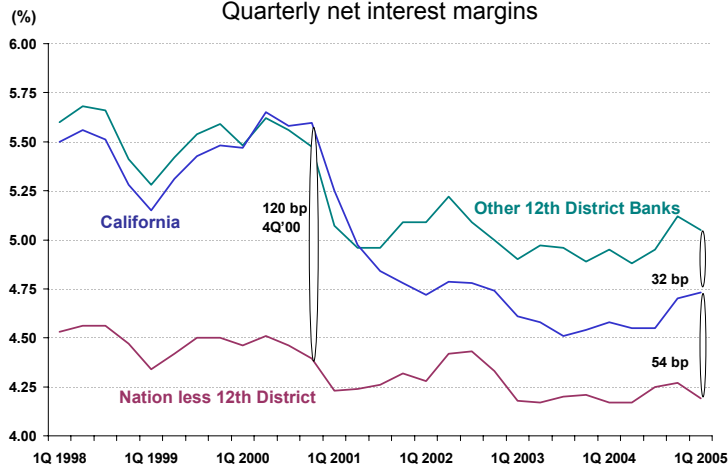


- Conundrum
- The flattening yield curve is causing earnings pressure at many banks

Source: Federal Reserve, Daily Rates

The 12th District generally outperforms the Nation

Quarterly net interest margins



Source: Call Report Data; Median Quarterly NIMs

What to expect from examiners.....

- Offsite
 - Review surveillance data and prior exam reports to develop a risk assessment and scope for appropriate exam staffing

- Onsite – follow the Four Pillars of Risk Management:
 - Effectiveness of board and senior management oversight
 - Suitability of policies and procedures
 - Appropriateness of risk measuring and monitoring
 - Effectiveness of internal controls and audit

How to estimate the IRR exam impact on your institution

- The scope of the exam is driven not only by asset size, but by complexity and management assessment
 1. Balance sheet complexity: embedded options, derivatives, types of loan products
 2. Leverage strategies, etc.
 3. Business lines: mortgage banking, for example
 4. Past IRR management assessment (part of the S rating)

- Note: many small banks have complex balance sheets given the level of embedded options
 - Examples of embedded options: callable securities, callable advances, mortgages, MBS and CMOs, structured notes, nonmaturity deposits (both sides of the balance sheet)

Offsite: Developing a risk-focused scope
 (consider complexity and IRR management)

note: risk assessments are confirmed during all exams

complexity	high	I. <u>Full onsite procedures</u> <ul style="list-style-type: none"> • Low reliance on internal measures 	II. <u>Modified procedures/scope</u> <ul style="list-style-type: none"> • Rely on internal measures • Target specific areas
	low	III. <u>Reduced scope</u> <ul style="list-style-type: none"> • Low reliance on internal measures • Focus on “management” 	IV. <u>Minimal onsite procedures</u> <ul style="list-style-type: none"> • Rely on internal measures • Target specific areas
		weak	strong

IRR management

Onsite: Assess the four pillars of risk management

- Effectiveness of board and senior management oversight
- Suitability of policies and procedures
- Appropriateness of risk measuring and monitoring
- Effectiveness of internal controls and audit

Board and senior management oversight

- ❑ Establish sound controls
 - *Require audit issues to be elevated*
 - *Question sr. management*
 - *Engage in discussions with auditors/examiners*
- ❑ Understand core and new activities
 - *Receive business line summaries*
 - *Set and monitor risk tolerance*
- ❑ Understand the business
 - *Review/approve financial data*
 - *Assess quality of info received*
 - *Require overviews from business lines*
 - *Seek independent perspective*
- ❑ Senior management should execute the board's strategic plan
 - *Ensure adequate staffing and operational support*
 - *Collect sufficient data to monitor activities*
 - *Enforce adherence to board's chosen risk profile and tolerance*

How do examiners assess this?

- ❑ Examiners review:
 - *Board packages and meeting minutes – essentially all reports the board receives on a regular basis*
- ❑ What are the red flags?
 - *Limited (or nonexistent) discussion of the firm's strategies, current exposure, and potential exposure under different economic conditions*
 - *Limited, unclear, or nonexistent documentation or management reports disclosing compliance with risk limits*
- ❑ Bottom line: Examiners are looking for support that the board is aware of, and approves of, the level of risk the institution is taking

Policies, procedures, and limits

- Policies, procedures, and limits should:
 - *Be approved by the Board*
 - *Describe the firm's strategy*
 - *Define permissible products*
 - *Security types, derivatives, funding, concentration limits*
 - *Set explicit limits*
 - *Gap, EaR, EVE, VaR*
 - *Define separation of responsibilities*
 - *Address the new product approval process*

How do examiners assess this?

- Examiners review:
 - *The coverage and relevance of policies*
 - *Written procedures that should be updated and approved annually*
 - *Limits for market risks which should measure an institution's exposure (if applicable):*
 - *Gap, EaR, EVE, VaR*
 - *Limits to ensure they align with institutional risk tolerance*
 - *The process for tracking, elevating, and resolving exceptions*

- Red Flags:
 - *Skimpy, outdated policies which are incomplete and do not address the range of activities of the firm*
 - *Only one person can coherently discuss the firm's strategies*
 - *Very low limit "usage"*

Risk measurement and monitoring

- IRR measurement process should:
 - Assess all **material** risk associated with a firm's assets, liabilities, and OBS positions
 - Use generally accepted financial concepts and risk management techniques
 - Have well-documented assumptions and parameters
 - Provide clear and useful information to senior management and the Board

- The approach should match the complexity of the institution's activities:

- Basic banking activities	Gap
- Short-term exposure	EaR Simulations
- Long-term exposure	EVE Simulations
- Trading book	VaR

How do examiners assess this?

- Examiners review:

<ul style="list-style-type: none"> □ Documentation of models <ul style="list-style-type: none"> - Methodology (metrics, ratios, etc.) should be clear - Assumptions should be documented and supported with statistical info when possible - Stress tests should be regularly performed on key parameters 	<ul style="list-style-type: none"> □ Adequacy of monitoring reports <ul style="list-style-type: none"> - Reports should address all material risks - Reports should be tailored to the audience - Timeliness and frequency should be appropriate for the firm - Reports should clearly tie actual positions to limits
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How do examiners assess this (continued)?

- When reviewing IRR models, examiners consider:
 - *Size, nature, and complexity of the bank*
 - *Quality of management*
 - *Expertise of staff*
 - *Sufficient interest rate scenarios*
 - *ALCO and Board reporting*
 - *Automated data feeds*
 - *Well documented assumptions*
 - *The ability to disaggregate results*

How do examiners assess this (continued)?

- Red flags:
 - *Opaque or “black box” models. The inability of examiners to look in detail at how the model works*
 - *Limited documentation on either critical assumptions, the model itself, or the procedures for running the model*
 - *Significant human intervention between the data and the model output*
 - *Unrealistic model output*
 - *Overly simplistic models*

Internal controls and audit

- Institutions should have robust internal controls and audit
 - *Establish clear lines of authority and responsibility*
 - *Ensure appropriate separation of duties, i.e., risk taking vs. risk measurement*
 - *Develop a culture of risk management*
 - *Establish an effective audit and other 3rd party review*

How do examiners assess this?

- Examiners:
 - *Review the effectiveness of audit*
 - Ensure appropriate technical expertise
 - Independence from the business lines
 - Review the scope of the audit and management's responsiveness to findings
 - *Evaluate the risk management culture and its implementation*
 - Conduct interviews with senior and line management
 - *Examiners also review the model validation and backtesting process*
 - Independent reviews should be rigorous and conducted by skilled, independent personnel - internal or external
 - Backtests should be performed regularly comparing results with actual events

How do examiners assess this (continued)?

- Red flags:
 - *No critical review of the model or the results by either management or an independent party – simple acceptance of the results*
 - *Lack of expertise by the reviewer*
 - *Insufficient backtesting*
 - *Assumptions are not documented, or in some cases, continuously changing (i.e., core deposits)*
 - *Only one person understands the modeling process, assumptions, and the output*

Assigning the Sensitivity component

- The “S” component considers two things:
 1. *The quality of risk management*
 2. *The level of exposure*

“A rating of 1 indicates that interest rate risk sensitivity is well controlled and that there is minimal potential that the earnings performance or capital position will be adversely affected. Risk management practices are strong for the size, sophistication, and market risk accepted by the institution. The level of earnings and capital provide substantial support for the degree of interest rate risk taken by the institution.” - FRB Commercial Bank Exam Manual

Questions?

□ Resources:

- <http://www.federalreserve.gov/boarddocs/srletters>
 - SR 96-13 Joint Policy Statement on Interest Rate Risk
 - SR 98-12 Joint Policy Statement on Investment Securities and End-User Derivatives Activities
 - FRB Commercial Bank Exam Manual and Trading and Capital Markets Activities Manual
- *OCC Bulletin 2004-29 Embedded Options and Long-term Interest Rate Risk*
- *BIS Principles for the Management and Supervision of Interest Rate Risk* <http://www.bis.org/publ/bcbs108.htm>