TEXAS DEPARTMENT OF BANKING	Bank Name/City	
	Charter #	
	Exam Date	
	Performed By	

#10 – Funds Management/Sensitivity to Market Risk

Assignment Overview

Sensitivity to market risk reflects the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect a financial institution's earnings or capital. For most community banks, market risk primarily reflects exposure to changing interest rates. While its effect is less immediate, IRR can substantially impair a bank's earnings and capital adequacy. Banks should have sound risk management practices to identify, measure, monitor, and control IRR. A bank's IRR management should be appropriate for the level of IRR and the nature, mix, and complexity of a bank's products and activities. These procedures also focus on the management systems in place to identify and control risk.

Refer to the sections in the **FDIC Risk Management Manual of Examination Policies** **Liquidity and Funds Management- Section 6.1 and Sensitivity to Market Risk-Section 7.1** for more information. Refer to the DOB's Reference Material documents for a list of links to regulations, guidance, and other issuances by various regulatory authorities.

Instructions

IMPORTANT! These procedures are designed to promote critical thinking. Your comments should include what you looked at, what you found, and your conclusions. It is your narrative that should tell the story for a reader who may not be familiar with this bank. The reader/reviewer should have a thorough understanding of what was performed and conclusions made.

Examiners must follow the instructions below and the requirements in the Examiner Bulletin addressing Guidelines for Procedures and Work Paper Documentation for Commercial Examinations. If there is a conflict between these Instructions and the Examiner Bulletin, the Instructions prevail. Documentation should support weaknesses and criticisms. All examiners performing these procedures must be listed above in the "Prepared By" section.

Examiners are responsible for exercising sound judgment and utilizing reasonable investigative and analytical skills to arrive at an accurate assessment of the risk profile of this segment of the institution's operations.

Evaluation Factors, Risk Guidance, and Comments

The focus of this procedure is to evaluate and address each of the Evaluation Factors. The Risk Guidance is provided to guide the examiner in developing a full and complete analysis for the Evaluation Factor. Documenting responses in the Risk Guidance section is not required. All conclusions should be documented in the Conclusion box for the Evaluation Factor**. Examiners will use their discretion to determine when to comment on a risk guidance item, considering what data or findings merit emphasis and which are secondary or of little importance**. The examiner is expected to write a comment in the Conclusions box that is complete and supportive of findings, recommendations, and ratings. Do not write a comment to refer to the Risk Guidance.

The examiner may also address areas not included in the Risk Guidance section as it is not intended to be all inclusive.

▸ **Risk Guidance**

To view the Risk Guidance, click on the arrow to the left of the "Risk Guidance" text.
To Hide the Factors, click on the "arrow" again.

Documentation

Supporting documentation should include the standard required documents identified in the Reference Documents section for each Evaluation Factor.

- Embedded documents should be named such that the reviewer will know the contents.
- If a required document will not be included for any reason, DO NOT DELETE the document title, instead, check either "Not Included" and add a reason why OR if a document is not applicable, check "N/A".
- Any other relevant documents may be added to fully support the examiner's findings. These documents may be embedded in the Reference Documents section.
- If a document needs to be reference in more than one Evaluation Factor comment, include a reference in the comment indicating the Evaluation Factor where the document can be found.

Documentation is to be sufficient to allow an audit trail of the examiner's thought process and all significant findings.

Violations of Regulations

Violations of regulations should be addressed under the appropriate Evaluation Factor. Indicate compliance using the drop-down box next to the regulation in the Compliance section. Address non-compliance in the Comment section.

Yes = In compliance

No = Not in compliance

***Not Applicable* =** Requirements in the regulation do not apply. For example, if there were no dividends paid, then the regulation related to approval of dividends would reflect “Not Applicable”.

Nonconformance with Policy

Adherence with best practices identified in Department and federal financial regulatory policy/guidance should be addressed under the Comments for the appropriate Evaluation Factor. Indicate if the bank adheres to the best practices using the drop-down box next to the appropriate policy in the Adherence to Policy section. Comments regarding best practices should be summarized in the Summary Comments.

Summary Comments and Conclusions

The Summary Comments and Conclusions should be a high-level summary that highlights the examiner’s material findings and conclusions. A description of what to include in the Summary Comments and Conclusions is provided. These comments are not intended to be a report ready comment and will contain comments that may not be report worthy. Summary comments must support the Summary Rating.

The EIC will determine if the use of bullet points is appropriate for completing the Summary Comments and Conclusions. *The SEIC/EIC will have discretion in determining what is included in the Report of Examination.*

Navigating this Procedure

This procedure can be easily navigated by clicking on View from the Word menu bar then selecting Navigation Pane found in the Show section. All headings in this document will appear on the left side of the screen, for easy navigation through the document.

Performing alternate or expanded procedures not listed with these guidelines may be necessary to complete this risk analysis.

Summary of Findings

Funds Management/Sensitivity - Summary Comments and Conclusions

Document conclusions regarding the type and level of sensitivity to market risk, whether management and the Board adequately identify, measure, monitor, and control market risk and the degree of impact to capital and earnings. Include recommendations for implementing best practices from policies and management's response to weaknesses identified. *The SEIC/EIC will determine what to include in the report of examination.*

Summary Rating: **Click Here to Select Rating**

Definitions for Summary Ratings –

CAMELS: 1-Strong; 2-Satisfactory; 3-Less than satisfactory; 4-Deficient; 5-Critically deficient

Ratings Matrix.xlsm

Violations

Prepare a comment for any violations cited. Include management's response.

Funds Management/Sensitivity Analysis

EVALUATION FACTOR 1:
Review the last examination, most recent internal/external independent review (encompassing audit, model validation, model risk management, etc.) and correspondence to identify any recommendations, violations, Matters Requiring Attention, or regulatory enforcement actions. Determine Board and Management's efforts to comply with or correct noted deficiencies or concerns.

Reference Documents	Conclusions – Evaluation Factor 1
Prior Examination Criticisms and/or Audit Exceptions ☐ N/A ☐ Not Included Copy of management response/corrective action, if applicable ☐ N/A ☐ Not Included Independent Review of IRR (including back test and model validation) ☐ N/A ☐ Not Included Other Supporting Documents:	

EVALUATION FACTOR 2:
Determine the degree of sensitivity to market risk according to the model used by management to measure, monitor, and control IRR. Identify the major sources of sensitivity to market risk by reviewing the balance sheet structure, Call Report schedules for repricing, and trends in the balance sheet composition. Determine if the level of earnings and capital are sufficient given the degree of market risk taken.

Risk Guidance

1. **Review the Interest Rate Risk Model and determine:**
   a. The bank's true asset/liability sensitive position.
   b. Level of sensitivity for NI, NII, and EVE based on a 12-month rate shock.
   c. The applicability of the model to the bank's assets, liabilities, off-balance sheet activity, and operating environment.

2. **Determine if there is evidence of any material changes in the balance sheet. Consider the following**:
   a. Composition of balance sheet items that may exhibit sensitivity to market risk;
   b. Shift in earning assets (loans, investments, interest bearing bank balances, fed funds);
   c. Shift in funding sources (deposits, brokered or listing service deposits, borrowings), which can be more sensitive to rate changes;
   d. Fundamental change in the liability mix between core deposits and other funding sources;
   e. Change in maturity or repricing characteristics of earning assets or funding sources;
   f. Level of appreciation/depreciation in investments portfolio; and
   g. Embedded options such a prepayment options or caps and floors for assets or liabilities

3. **Determine if the bank engages in any off-balance sheet activity such as swaps, financial futures, forward placements, foreign exchange or secondary market mortgage banking. Evaluate the adequacy of management's oversight.**
   Refer to Appendix A for mortgage related off-balance sheet activity. Refer to Appendix B for all other off-balance sheet activity.

Reference Documents	Conclusions – Evaluation Factor 2
Financial date Interest Rate Risk Report ☐ N/A ☐ Not Included Other Supporting Documents:	

EVALUATION FACTOR 3:
Evaluate the adequacy of the bank's Interest Rate Risk monitoring system and the adequacy of the Asset Liability Management Policy.

Risk Guidance

1. **Determine the type of IRR measurement system used by the bank and whether it is appropriate. Consider the following:**
   a. Does it forecast changes to the appropriate earnings measures (NI, NII, and EVE)?
   b. Does it appropriately evaluate assets and liabilities with embedded options?
   c. Does it provide estimates of the bank's exposures over appropriate time horizons (12 and 24 months preferred)
   d. Does the system use static and/or dynamic model, and is it reasonable?

2. **Determine if the model includes appropriate data inputs and assumptions. Consider the following:**
   a. Does the model capture variations within the mortgage department non-interest income in relation to changing interest rates relative to the size and complexity of the institution?
   b. Does the model use any of the following items to formulate assumptions?

    i. Deposit studies
    ii. Bank-developed prepayment models
    iii. Third-party prepayment models

c. How often are assumptions reviewed for appropriateness (typically at least annually)
d. Does management understand the impact of the assumptions on the model?
e. Refer to the FDIC's Risk Management Manual **Liquidity and Funds Management -Section 6.1** and **Sensitivity to Market Risk -Section 7.1** for more information on model assumptions.

3. Evaluate the adequacy of the Asset Liability Management Policy, considering the following:

a. The Board Approved the policy within the last year;
b. Appropriate Interest Rate measurement tools are used in reviewing and monitoring interest rate risk;
c. Risk tolerance limits for NII, NI, and EVE are established and appropriate in light of earnings and capital levels;
d. Risk tolerance limits for Net Income, if the bank's net income relies heavily on fee income from mortgage activity, are established and appropriate;
e. Maturity guidelines for assets and funding sources are appropriate;
f. Asset and deposit diversification guidelines; and
g. Guidelines are in place for monitoring off-balance sheet and hedging activities (including overall position limits).

Reference Document	Conclusions – Evaluation Factor 3

EVALUATION FACTOR 4:
Determine the adequacy of Board and Management oversight of sensitivity to market risk.

Risk Guidance

1. **Determine the frequency that IRR models are reviewed by the Board or ALCO.**
   a. At least quarterly reviews are preferred.

2. **Consider if the IRR model shows exposure levels that exceed risk tolerance levels approved by the Board and how the Board handles it.**
   a. The Board or ALCO should discuss, approve, and document the exceptions to policy in minutes.
   b. If risk tolerance limits are consistently being broken, the Board or ALCO should consider revising their limits or making adjustments to their strategy to minimize the exceptions. The strategy to minimize exceptions should be documented in minutes.

3. **Consider the review of other pertinent information such as off-balance sheet activity or hedging activity that can have an effect on the sensitivity exposure**.

Reference Documents	Conclusions – Evaluation Factor 4

EVALUATION FACTOR 5:
Determine conformance with the Joint Agency Policy Statement: Interest Rate Risk (1996) (Federal Register version) and Part 364 Appendix A Section II.E.

Risk Guidance

1. Determine conformance related to the following:

a. Effective Board and management oversight

b. Effective risk management processes

c. Proper internal controls are in place

d. Proper monitoring systems

e. Back-testing

f. Independent audit or review

g. Model validation

2. An institution should:

a. Manage interest rate risk in a manner that is appropriate to the size of the institution and the complexity of its assets and liabilities; and

b. Provide for periodic reporting to management and the board of directors regarding interest rate risk with adequate information for management and the board of directors to assess the level of risk.

Adherence to Best Practices in Policy	
Joint Agency Policy Statement: Interest Rate Risk (1996) (Federal Register version)	***Select Response***

Compliance with Regulation	
Part 364 Appendix A Section II-E Interagency Guidelines Establishing Standards for Safety and Soundness	***Select Response***

Reference Documents	Conclusions – Evaluation Factor 5

Appendix A

Mortgage Related Off-Balance Sheet Activity

Many mortgage banking programs use derivative instruments, such as forward commitments, to hedge the rate-locked pipeline and warehouse loans against changing market interest rates.

1. Determine whether the management information systems (MIS) generate all necessary reports, such as:
    a. Held-for-sale loans and inventory aging;
    b. Loans segregated by product type and investor;
    c. Application volumes (through origination), and any processing backlogs;
    d. The status of delivery commitments to investors;
    e. Daily positions, including pipeline, warehouse, and hedged loans;
    f. Operating results, including profitability, efficiency, and cost information; and
    g. Liquidity and capital needs.
2. Determine whether management established hedging policies that, at a minimum, address individuals responsible for securing, monitoring, and re-evaluating hedging positions, establish systems for periodically evaluating/determining pull-through rates, timeframes for obtaining contracts prior to closings, objectives for minimum/maximum mortgages exposed to IRR.
3. Review the effectiveness of hedging strategies, such as forward sales or options, used to hedge risks associated with the pipeline and the warehouse.
4. Are mortgage loans sold in the secondary market Best Efforts Delivery or Mandatory delivery?
    a. If Mandatory, consider the following:
        i. What is the pull through rate and how often is this reevaluated?
        ii. How often are hedges monitored/re-evaluated (i.e. twice daily, daily)?
        iii. Who is responsible for securing hedges?

iv. Who is responsible for evaluating hedges and pull through rates?

v. For all un-hedged mortgages (in excess of the pull through-rate), how does management protect against interest rate risk?

1. For institutions with a high-risk liquidity structure, confer with the examiner performing the liquidity procedure if a stress test captures the inability to sell mortgage loans on the second market.

b. If best efforts, consider the following:

i. At what point in the timeline of a mortgage sale does management obtain a contract?

ii. Does the secondary market purchaser have to approve of the contract and or underwriting?

Return to Risk Guidance for Evaluation Factor 2

Appendix B

All Other Off-Balance Sheet Activity

For additional guidance, contact the subject matter expert in your region or headquarters.
Refer to the Supervisory Policy Statement on Investment Securities and End-User Derivatives Activities for guidance.

1. Consider recent purchases to determine how the derivative is being used and what its purpose is.
    a. Does it fit in with management's investment strategy?
    b. Is the volume reasonable?
2. Evaluate the adequacy of management's performance and oversight by considering the following:
    a. Are policies or profiles that describe the bank's services and objectives reasonable?
    b. Do policies address the following?
        i. Specific objectives for the types of securities and derivative instruments? (i.e., earnings potential, liquidity, hedging risk exposures, taking risk positions, modifying and managing risk profiles)
        ii. Identification of risk characteristics of permissible investments? (i.e., credit, market, and liquidity risk)
        iii. Delineate clear lines of responsibility and authority for conducting investment activities?
    c. Determine if the bank is an end-user, intermediary, or an active market user.
    d. Are hedging reports used by the board of directors and/or senior management adequate?
    e. Do independent parties conduct month-end re-evaluation of positions that address the following:
        i. Compliance with appropriate investment policies, procedures and limits?
        ii. Appropriateness of the institution's risk measurement system based on the nature, scope, and complexity of the activities?
        iii. Timeliness, integrity, and usefulness of reports to the board of directors and senior management.

Return to Risk Guidance for Evaluation Factor 2