Stress Testing and Appraisal Discussion

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Agenda

- Guidance expectations
- Barriers to stress testing
- The stress test process
- Scenario discussion
- Summary

Stress Testing and Sensitivity Analysis Guidance Expectations

The commercial real estate (CRE) guidance states:

- Institutions should perform portfolio-level stress tests to quantify the impact of changing economic conditions on asset quality, earnings, and capital
- Institutions should consider the sensitivity of portfolio segments with common risk characteristics
- The sophistication of stress testing should be consistent with the size, complexity, and risk characteristics of the CRE portfolio.

Stress Testing and Sensitivity Analysis Guidance Expectations

Benefits of stress testing:

- Quantifies the impact of changing economic conditions on:
  - Asset Quality
  - Earnings
  - Capital
- Allows for management to form contingency plans in the event downside scenarios occur
- Helps management think more critically about the external environment
  - Focuses attention on changing markets
  - Opens discussion regarding possible future trends

Stress Testing and Sensitivity Analysis
Barriers to stress testing

Barriers include:

- Internal business culture
  - Thinking that stress testing requires use of sophisticated models
  - Thinking that “conservative” underwriting standards negates the need for stress testing
  - Thinking that staff lacks the expertise to perform stress tests

- MIS systems
  - The institution needs to be able to access aggregated data
  - Information about stress test inputs and output needs to flow up and down the management chain

Stress Testing and Sensitivity Analysis
Barriers to stress testing

Overcoming the barriers:

- Stress tests don’t have to be overly complex
  - The thought process is more important than the models
    - What do lenders worry about in their markets
    - What do lenders worry about in their portfolios
    - What keeps them up at night
- Start out by stressing only one or two variables
  - Allows for focus on results instead of process
  - Illustrates that the process does not have to be complex
  - Allows management to be come familiar with stress testing without consuming large amounts of time and energy

Stress Testing and Sensitivity Analysis
The Stress Test Process

Setting up a process:

- Begins with management buy-in
  - Management must first determine benefits outweigh costs
- Segment the portfolio by common factors
  - LTV, DSC, Geography, Product type, Fixed or variable rate
- Determine the variables to be stressed
  - LTV, DSC, Rates (interest rate, cap rate, vacancy rate, charge-offs)
- Determine the scenarios
  - Base case vs. downside scenarios
  - Worst case assumptions: When is additional capital needed?

Stress Testing and Sensitivity Analysis
The Stress Test Process

Stresses can be correlated

- A slowdown in residential construction can also effect:
  - Retail construction loans
  - Loans to construction related segments
    - Hardware
    - Appliances
    - Furniture
  - If consumers spend less because of declining home values, business loans may be impacted
    - Restaurant lending
    - Retail lending
  - Some sectors may be positively impacted
    - Multifamily rentals
    - Falling dollar affects exporters positively

Stress Testing and Sensitivity Analysis
The Stress Test Process

Incorporate conclusions into strategic decision making

Strategic Planning

- Should earnings and growth forecasts be adjusted given the base scenarios and stress results?
- Should our risk tolerances be adjusted?

Capital Planning

- How will our capital adequacy be affected under various stress scenarios?
- Are contingency plans in place to ensure capital remains appropriate for the level & nature of risk?

Risk Management

- Which products and markets are most at risk in a stressed environment?
- To what extent will our asset quality be adversely affected?

Individual Lending Decisions

- Do we have the ability to strengthen or restructure individual credits that may be at risk?

Stress Testing and Sensitivity Analysis
The Stress Test Process

Common stress testing assumptions and questions:

- Collateral based scenarios
  - Property cap rates increase causing collateral value to decline and loan level LTV ratios to increase
    - If property values decline by 10% or 20%, what is the bank's increased exposure?
  - Vacancy rates increase causing NOI and DSC to decrease
    - How far must vacancy rates rise before a given loan falls below a 1.0x DSC ratio?

Stress Testing and Sensitivity Analysis
The Stress Test Process

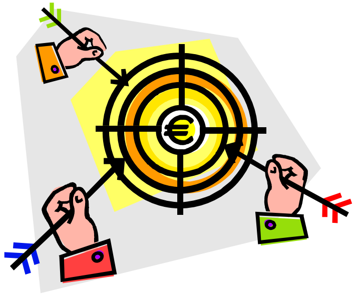
Common stress testing assumptions and questions:

- Market based scenarios
  - Interest rates increase causing DSC to decrease on variable rate loans
    - How far must rates increase before a given loan falls below a 1.0x DSC ratio?
  - Unemployment increases causing vacancy rates to increase
    - At what vacancy rate will the borrowers not be able to service their debt?

Stress Testing and Sensitivity Analysis
The Stress Test Process

Common stress testing assumptions and questions:

- Capital based scenarios
  - Charge-off rates increase causing Tier 1 capital and regulatory ratios to decrease
    - How much can charge-offs increase before the bank becomes less than adequately capitalized?
    - How much greater is this level of charge-offs compared to the bank's worst year?
    - How probable is it that charge-offs will increase to this point?



Appraisal Program: Primary Objectives

- Provide for the independence in ordering, performing, and reviewing appraisals or evaluations
- Establish selection criteria and procedures to evaluate and monitor the ongoing performance of appraisers
- Ensure that appraisals contain sufficient information to support the credit decision
- Provide for the receipt and review of the appraisal in a timely manner to facilitate the credit decision
- Develop criteria to assess the validity of existing appraisals to support a subsequent transaction or assess the adequacy of collateral support on a loan
- Implement internal controls that promote compliance with the Board's appraisal regulation and guidance.

Is the Bank's appraisal process protected from inappropriate influence?

Appraisal is too low, try again

The borrower wants Mary Doe to perform the appraisal

Don't use John Doe as he is too conservative

If the value is less than $2 million, don't finish the appraisal

Borrower says the property is worth $10 million

Use of an Approved Appraiser List

- Banks typically use an approved appraiser list to facilitate the appraiser selection process.

- Bank should have procedures for qualifying an appraiser for initial placement on the list and for assessing whether to retain an appraiser on the list.

- The development and maintenance of the list should be independent of the loan production staff. At smaller banks, the bank's board of directors may approve the list on annual basis.

- List should indicate the knowledge and expertise of the appraiser.

- If loan production staff is allowed to use the list for the selection of an appraiser, the loan production staff should not be allowed to "cherry pick" an appraiser from the list.

When should a bank obtain a new appraisal for an existing credit?

- **Policy**: A bank’s policies should address the situations when a new appraisal or an updated collateral valuation should be obtained for an existing credit, including:
  - ✓ Moving a loan to workout status
  - ✓ Declining market conditions
- **Considerations**:
  - ✓ Changes in market conditions
  - ✓ Deterioration in the credit
  - ✓ Age of appraisal in loan file
  - ✓ Delays in construction
  - ✓ Change in use of property
  - ✓ Increase in the concentration to a particular market segment
- **Loan Agreement:** for a higher risk credit or a long term commitment, a bank may wish to include an option for a new appraisal at the borrower’s expense during the term of the loan.
- **Loan Refinancing:** A subsequent transaction (even with the advancement of new monies) may be exempted from the appraisal requirement, but a bank must obtain or perform an evaluation. If there has been obvious and material changes in market conditions or physical aspects of the property that threaten the adequacy of the bank's collateral protection, the transaction does not qualify for exemption and the bank must obtain an appraisal.

Market Value for a Loan to fund Construction or Renovation

- **“As is” market value** reflects:
  - Current physical condition
  - Current use
  - Current zoning
- **Prospective market value**
  - Based upon current and reasonably expected market conditions.
  - Consider the time it will take to develop, construct, and sell or lease the building
  - Provide a point of reference to the market conditions and time frame on which the appraiser based the analysis.
  - For stabilized occupancy, consider the time to lease the property at comparable terms and conditions to other similar properties.