



**Comptroller of the Currency
Administrator of National Banks**

Presents:

**Stress Testing for Community Banks
A Telephone Seminar**

Monday, December 3, 2012

11:30 AM – 1:00 PM Eastern

10:30 AM – 12:00 PM Central

9:30 AM – 11:00 PM Mountain

8:30 AM – 10:00 PM Pacific

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Comptroller of the Currency
Administrator of National Banks

Community Bank Stress Testing Guidance and the Income Producing CRE Stress Testing Tool

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Guidance Background

- Interagency Statement to Clarify Supervisory Expectations for Stress Testing by Community Banks – Issued May 14, 2012
 - DFA, Large Bank Stress Testing Guidance, and FRB’s capital plan rule do not apply to institutions with \$10 billion or less in total consolidated assets.
 - Emphasizes that all banking organizations, regardless of size, should have the **CAPACITY** to analyze the potential impact of adverse outcomes on their financial condition.
 - Existing guidance addressing potential adverse outcomes as part of sound risk management practices continue to apply.
- Based on subsequent industry and examiner expressions of uncertainty around supervisory expectations for community banks, the OCC decided to issue additional stress testing guidance.



Stress Testing Concept Is Not New

- 1998 OCC Loan Portfolio Management Handbook
- Interagency Statement on Interest Rate Risk - Issued 1990's Re-stated 2010
- 2006 Joint Guidance on Concentrations in CRE Lending, Sound Risk Management Practices
- 2010 Interagency Policy Statement on Funding and Liquidity Risk Management
- 2011 Comptroller's Handbook - Concentrations of Credit Booklet
- OCC Bulletin 2012-16, Guidance for Evaluating Capital Planning and Adequacy



- **OCC Bulletin 2012-33, Community Bank Stress Testing, Supervisory Guidance.**
 - Applies to national banks and federal savings associations with total assets of less than \$10 billion (community banks).
 - Purpose is to provide additional clarity around stress testing expectations for community banks.
 - Provides guidance on the benefits of using stress testing and provides examples of stress testing methods appropriate for community banks.
 - States that other supervisory guidance related to stress testing remains applicable and should be used in conjunction with this guidance.



Why Stress Test?



- An appropriately designed stress testing program can provide significant benefits and even a competitive advantage.
 - Another key component of an effective risk management program that identifies key vulnerabilities and risk exposures.
 - Helps identify and quantify risk to earnings and capital from possible adverse economic scenarios that can impact a bank's financial condition.
 - Provides useful information for establishing and monitoring strategic plans, risk appetites and tolerance levels, and line of business operating plans.
 - Important component of a sound capital planning program.



Recent Lessons Learned

Commercial Real Estate Concentration Impact

**Banks within all three criteria:
0.5% failed**

**Banks over on all three:
23% failed**

C&D over 100% of Capital
(1,909 or 26% of 7,379 active charters)

- 13% failed
- Est. 80% of FDIC losses
- High % of survivors are CAMELS 3, 4, or 5*

Total CRE over 300%**
(1,310 or 18%)
AND Total CRE Growth over 50% in 3 Years
(Combined criteria: 890 or 12%)

- 21% failed (overlaps with construction)
- 16% failed without growth criterion
- 5.1% failed if C&D under 100%

Not a criterion on its own, but--Total CRE Growth over 50% in 3 Years
(2,819 or 38%)

- 4.8% failed even if below on other criteria

National and state chartered banks between 3/31/2007 and 9/30/2011. Ratio values snapshot at 3/31/2007. *Based on national bank data. **Excludes owner-occupied nonfarm nonresidential CRE. Source: OCC, FFIEC Call Report data.



Key Points in the Guidance

- Some form of stress testing should be part of an institution's risk management program and performed on at least an annual basis.
- The stress testing program should be designed to fit an institution's unique organizational structure, business strategy, and risk profile, and be imbedded in strategic and capital planning processes.
- The stress testing method used does not need to involve the sophisticated analysis required of larger banks or require institutions to seek third-party consultative support.
- The guidance provides descriptions of basic stress testing methods appropriate for community banks.
- Provides an example of a simple portfolio level stress test framework based on call report loan categories using loss rates from recent historical stress periods.



Stress Test Results – Now What?

- The results of stress tests should be evaluated and measured against the institution's risk tolerance thresholds and capital.
- If stress test results reflect a level of risk in excess of the institution's tolerance and capital levels, management should develop a plan to mitigate the risk.
 - The following are examples of ways to mitigate such risk:
 - Appropriately adjusting strategic, business, and capital plans.
 - Changing the institution's risk appetite and risk tolerance thresholds.
 - Limiting or stopping loan growth by adjusting underwriting standards.
 - Adjusting the loan portfolio mix by selling or hedging loans.
 - Raising additional capital.



A Simple Stress Test Framework

- As mentioned, the guidance provides an example of a simple stress test framework that community banks may use as a start.
- The example uses an excel spreadsheet, call report loan data, and historical loss rates from three recent financial stress time frames.
- The framework may be customized to fit an institution's unique loan portfolio composition and risk characteristics and management developed scenario inputs.
- The OCC developed an historical loan loss rate table that uses 75th to 90th percentile loss rates experienced during the last three stressed economic periods. The table is provided for banker use on Banknet.



Stress Testing Method Example

1. Estimated Loan Portfolio Stress Losses			
Loan Portfolios from Call Report Schedule RC-C	Quarter End As of Date \$ Balances	Two Year Stress Period Loss Rate %	Two Year Stress Period \$ Losses
Loans secured by real estate			
a. Construction & development	100	20%	20
b. Secured by farmland	50	8%	4
c. Secured by 1-4 family	100	4%	4
d. Secured by multifamily	75	16%	12
e. Secured by nonfarm nonresidential	100	8%	8
Agricultural production and farmer loans	40	6%	2
Commercial and industrial	60	14%	9
Consumer loans	50	4%	2
All other loans	25	4%	1
Total	600		62



Stress Testing Method Example

2. Estimated Impact of Stress on Earnings

	Previous Two Years Actual for Reference Purposes		Pro Forma Stress Period
Pre-provision net income	35		30
Less provision to cover two year losses	(8)		(62)
Less provision to maintain adequate ALLL	(4)		(10)
Income tax expense or benefit	(6)		15
Net income	17		(27)



Stress Testing Method Example

3. Estimated Impact of Stress on Capital			
	Quarter End As of Date		Pro Forma Stress Period
Tier 1 Capital \$	88		88
Net change in Tier 1 Capital from stress period (net income from Step 2)	N/A		(27)
Tier 1 Capital \$ Before and After Stress	88		61
Quarterly Average Assets \$	800		738
Tier 1 Leverage Ratio % Before and After Stress	11.0%		8.2%



**Office of the Comptroller of the Currency
Economics Department**

**Stress Situation Annual Net Charge-Off Rates by Broad Call Report Category
National Banks With Assets Under \$10 Billion Assets**

Loan category	Stress period Annual net charge-off percentages, 75th to 95th percentile
Consumer	
Mortgage, residential 1-4 family	0.95 to 3.40
-- First lien	0.85 to 3.30
-- Second lien	2.10 to 7.05
-- HELOC	1.50 to 4.55
Credit card	11.60 to 21.85
Other consumer loans	1.25 to 3.10
Commercial real estate	
Construction & land development	5.50 to 14.90
-- Residential C&D	5.10 to 16.20
-- Other C&D	6.50 to 16.80
Nonfarm nonresidential CRE	1.80 to 6.10
-- Owner-occupied nonresidential CRE	1.30 to 4.35
-- Non-owner occupied nonresidential CRE	2.00 to 6.10
Multifamily	3.80 to 12.40
Farmland (agric. CRE)	1.80 to 5.80
Commercial & industrial loans	3.30 to 10.50
Agricultural production loans	1.50 to 4.80

Notes

Loss rates are calculated as sum of net charge-offs for the full year over average loans.

Three historical periods were evaluated, 1990-1991, 2001-2002, and 2008-2010. Values are the loss rates experienced by the 75th and 95th percentile worst performing banks, category by category.

For each category, banks were excluded from the measure if the category represented under 5% of total loans and if the bank had no \$ losses in that period.

Source: OCC Integrated Bank Information System and Economics Department calculations



Community Bank Stress Test Example

Call Report Data as of December 31, 2006

<i>1. Estimated Loan Portfolio Stress Losses</i>			
Loan Portfolios from Call Report Schedule RC-C	Quarter End As of Date \$ Balances	Two Year Stress Period Loss Rate %	Two Year Stress Period \$ Losses
Loans secured by real estate			
a. Construction & development	146	14%	20
b. Secured by farmland	0	N/A	0
c. Secured by 1-4 family	86	3%	2
d. Secured by multifamily	4	15%	1
e. Secured by nonfarm nonresidential	113	8%	9
Agricultural production and farmer loans	0	N/A	0
Commercial and industrial	26	14%	3
Consumer loans	6	4%	0
All other loans	1	2%	0
Total	382		35

Community Bank Stress Test Example

Call Report Data as of December 31, 2006

<i>2. Estimated Impact of Stress on Earnings</i>			
	Previous Two Years Actual for Reference Purposes		Pro Forma Stress Period
Pre-provision net income	14		13
Less provision to cover two year losses	(0)		(35)
Less provision to maintain adequate ALLL	(2)		(7)
Income tax expense or benefit	(4)		9
Net income	8		(20)



Community Bank Stress Test Example

Call Report Data as of December 31, 2006

3. Estimated Impact of Stress on Capital			
	Quarter End As of Date		Pro Forma Stress Period
Tier 1 Capital \$	35		35
Net change in Tier 1 Capital from stress period (net income from Step 2)	N/A		(20)
Tier 1 Capital \$ Before and After Stress	35		15
Quarterly Average Assets \$	438		403
Tier 1 Leverage Ratio % Before and After Stress	8.0%		3.8%



What Bankers Can Expect from Examiners

- Examiners will begin discussing the guidance with bankers during normal supervisory activities related to the loan portfolio and capital planning risk management processes.
- Initial discussions will focus on the actions management has taken to in response to the guidance.
- Our objective will be to encourage and work with bank management to assess each institution's need and develop and implement an appropriate risk management program.
- There are no plans to set up horizontal targeted examinations focused solely on stress testing in community banks.



Income Producing CRE Stress Test Tool

The screenshot shows a web application interface for the Commercial Real Estate Portfolio Stress Test Tool. The interface is organized into several sections:

- Header:** Includes the Comptroller of the Currency logo and text: "Comptroller of the Currency Administrator of National Banks" and "US Department of the Treasury". The main title is "Commercial Real Estate Portfolio Stress Test Tool".
- Navigation:** A "Save" button with a floppy disk icon, a link for "Questions or Comments", and a "Role:" dropdown menu currently set to "Lead".
- Bank Information:** A section with a "Bank Name" input field and three buttons: "Enter Bank Financials", "Bank Characteristics", and "Edit Market Areas".
- Data Entry:** A section with three buttons: "Import / Export Data", "Borrower Data Entry", and "Set Concentrations".
- Data Analysis:** A section with three buttons: "Set Assumptions", "Set Risk Limits", and "Stress Test".
- Footer:** A "Current Version:" field showing "1.11", a "Stress Test Progress:" indicator at "0% Complete", and a "Current Stage:" indicator set to "Enter Bank Financials".



Income Producing CRE Stress Test Tool

- The tool is available to national banks and federal savings associations through the OCC's National BankNet system. These institutions can access BankNet at www.banknet.gov.
- Although the use of this tool by banks is not required, all banks are expected to have the ability to analyze the impact of adverse credit events on their financial condition.
- Banker version / Examiner version.
- The tool is based on Microsoft Office Excel and requires Excel 2007 or later.



Income Producing CRE Stress Test Tool

- Allows for multiple borrowers.
- Allows for multiple loans and properties per borrower.
- Estimates potential losses / potential additional reserve needs, per borrower (“bottom up” approach).
- Estimates the aggregate potential reserve needs for the entire income producing CRE portfolio based on sample findings.
- Banker version “scenarios” are defined by the institution.
- Examiner version uses assumptions based on vendor provided external CRE market forecasts. Examiners can also use alternate assumptions based on historical data.



Income Producing CRE Stress Test

- On a borrower basis, the tool aggregates the borrower's cash flow available for debt service and debt service requirement, and calculates the debt service coverage ratio (DSCR).
- Aggregate cash flow available for debt service includes NOI from the income producing properties and any other cash flow entered by the user.
- Aggregate debt service includes the calculated DSR for each entered loan and any other debt service entered by the user.
- Allows for multiple borrowers.



Income Producing CRE Stress Test Tool

How does the tool estimate the potential loan loss reserve needs?

- The tool aggregates the estimated loan loss provision expenses for each borrower under each scenario.
- Based on concentration allocations, the tool estimates the “portfolio” provision expenses:
 - Ex: The *Houston - Office Property* sample totals 10MM and the total aggregate estimated provision expense for a given scenario is 1MM (10% reserve rate). The total portfolio size of the *Houston – Office Property* segment is 100MM. The tool estimates the total portfolio provision expense for this portfolio segment is 10MM for this scenario.

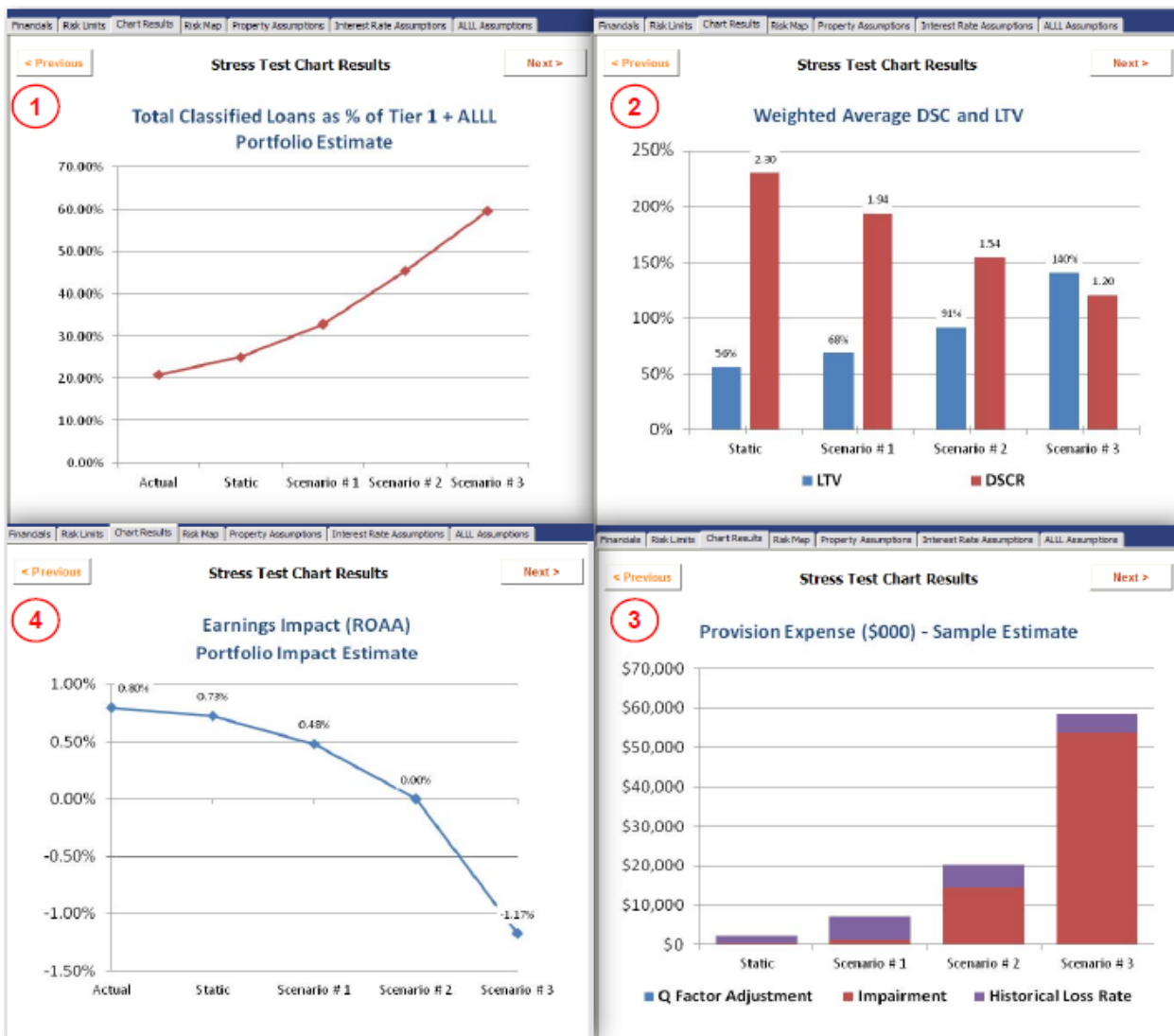


Income Producing CRE Stress Test Tool

How does the tool estimate the potential loan loss reserve needs?

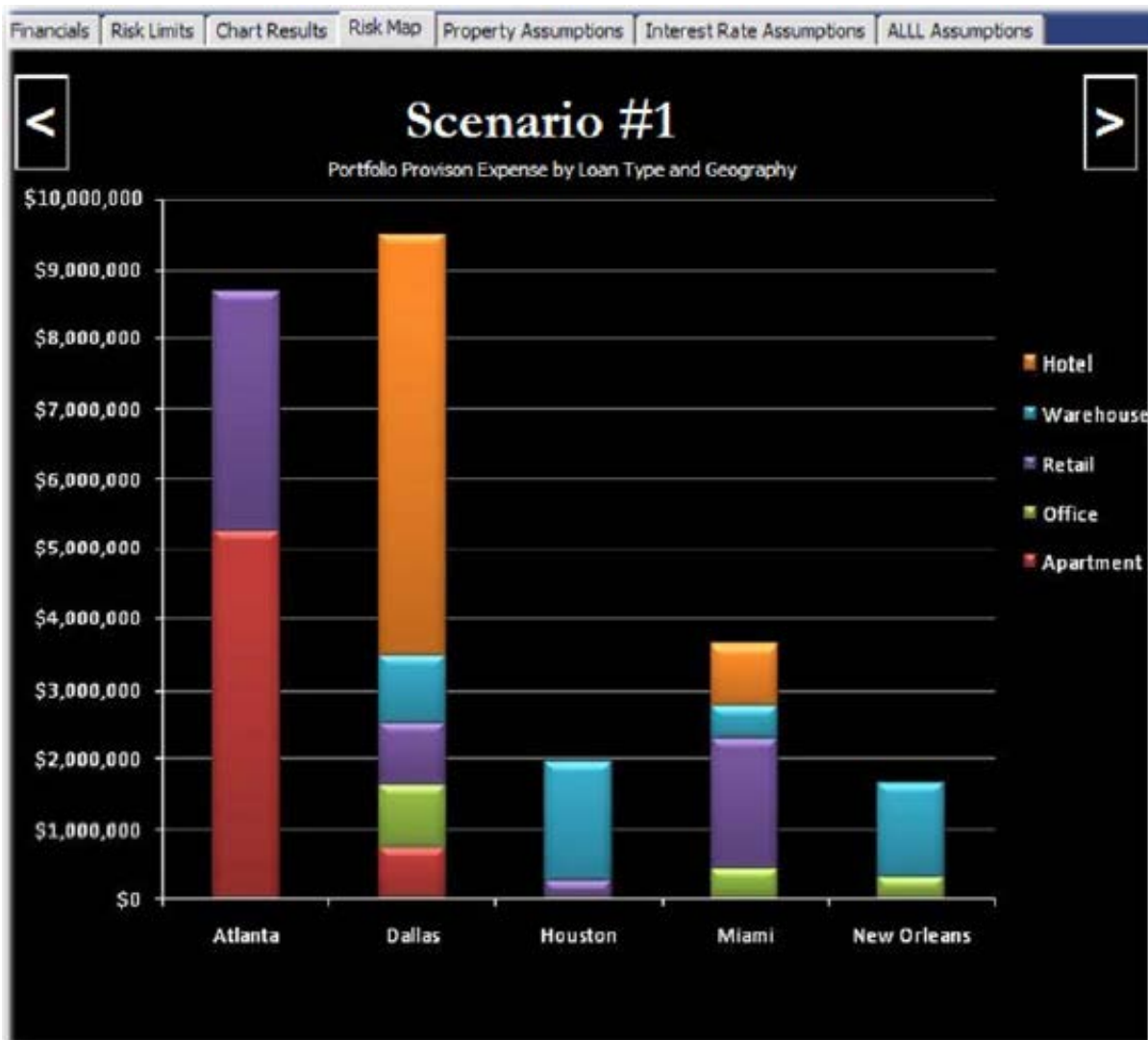
- The sample and portfolio estimated loan loss provisions are treated as expenses on the bank's income statement.
 - Net income is reduced by the amount of the provision expense as well as the amount of interest income lost due to borrowers on non-accrual. The tool recalculates YTD net income and ROAA.
 - Tier 1 capital is reduced by the amount of the provision expense. The tool recalculates the tier 1 leverage ratio.

Tool Output Report Examples





Tool Output Report Examples





Examiner Use of the Tool

- When CRE concentration levels require enhanced risk management processes, examiners will talk with bank management regarding efforts to incorporate stress testing into its risk management program.
- If an institution has established a stress testing program, examiners will evaluate the results of the stress testing completed by management and determine if examiner use of the tool is appropriate.
- The tool is just one method by which examiners and bankers can perform stress testing on CRE loans. Other methods may be more appropriate, depending on a bank's size and loan portfolio complexity.



Examiner Use of the Tool

- The following are examples of when and how the tool may be used by examiners in limited circumstances.
 - As an independent check on management's stress testing results OR to help assess the level of risk if management does not have an adequate stress testing process.
 - During risk management discussions to provide better context by using real bank data.
 - When an institution's strategic plan provides for aggressive growth in loans for income producing CRE.



Questions



Thank you for attending this event.

Today's event features an online, post-event evaluation form. To send us your feedback, please click on the link below, or type the URL into your web browser's address bar.

<http://eval.krm.com/eval.asp?id=19697>

Your feedback and comments are very important to us. Thank you in advance for taking the time to complete this evaluation!