

Stress Testing Tips

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If you're like most community banks, your assets are less than \$10 billion. That is well below the \$250 billion level where regulators look extremely closely at stress testing. But, the practice should still be an important element of your risk management program.

A well-designed series of stress tests can help you identify your institution's vulnerabilities and figure out how you'll manage its risks. While we know that stress testing is not new, we thought it may be helpful to provide the three best practices to gain maximum information about your bank's health.

First, set your expectations. There's no one stress test to rule them all. Many banks have used existing asset liability management (ALM) systems to analyze interest rate sensitivity. Unfortunately, some ALM systems can't handle non-interest rate macroeconomic variables or determine loan portfolio loss components in hypothetical economic situations.

Second, go with a model approach. Since the recession, model-based stress testing is the accepted best practice for banks. Factor-based stress testing meanwhile has largely been put out to pasture.

The difference between the two is significant. Factor-based stress tests push specific parameters for all loans in a negative direction and by a fixed amount. The institution applies assumptions about the effects of these changes to calculate expected losses, and from there adjusts capital and capital ratios.

Factor-based stress tests are of limited use because they can't tie expected results to real-world macroeconomic events. They also can't capture the relationships between important variables and how they affect the balance sheet and capital ratios.

On the other hand, model-based stress tests should include plausible economic scenarios that let you identify specific areas of balance sheet risk. Banks can then make changes based on the results and further discussions on areas that are concerning.

Third, choose top-down, bottom-up, or both. Top-down modeling treats exposures as groups with homogenous characteristics. This is a good approach for diversified loan portfolios. It yields intuitive, easily calibrated results that banks can backtest against actual or projected performance.

Bottom-up modeling uses loan-level characteristics to model performance. That lets each loan's credit characteristics influence estimates of credit risk transition, default, delinquency, loss frequency and magnitude. Either of these approaches, or a blend of the two, is a legitimate choice.

Stress testing is always important, especially in periods of economic uncertainty. Testing helps you understand what could happen to your balance sheet and develop contingency plans, preparing you for discussions with regulators or other stakeholders. [UNITY](#)

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