On May 14, 2012, the Board of Governors of the Federal Reserve System (Federal Reserve), Federal Deposit Insurance Corporation (FDIC) and the Office of the Comptroller of the Currency, Treasury (OCC), collectively the “Agencies,” issued final guidance titled “Supervisory Guidance on Stress Testing for Banking Organizations With More Than $10 Billion in Total Consolidated Assets.”¹ This document outlines high-level principles for stress testing practices applicable to all organizations under the Agencies’ direct supervision with more than $10 billion in assets (“financial institutions”). The Agencies believe that stress testing is a valuable tool for financial institutions to understand their risk profiles and that the $10 billion asset threshold is an appropriate differentiator of institution complexity. The final guidance is based on the proposed guidance with “minor additional refinements.” In June 2011, the Agencies requested comments on proposed guidance titled “Proposed Guidance on Stress Testing for Banking Organizations With More Than $10 Billion in Total Consolidated Assets” (“proposed guidance”).² The Agencies received 17 comment letters from trade organizations, bank holding companies, financial advisory firms and individuals. The Agencies indicated there was general support for the legislation with refinements and clarifications to certain provisions.

Noting that the above-referenced guidance does not apply to banks below $10 billion and citing the importance of all organizations’ ability to “analyze the potential impact of adverse outcomes on their financial condition,” the Agencies also released a companion guidance notification titled “Statement to Clarify Supervisory Expectations for Stress Testing by Community Banks.”³ Additionally, the Agencies noted, the guidance does not implement additional guidance as determined by Section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA) rule related to stress testing.

Final Stress Testing Principles

Consistent with the proposed guidance, the Agencies identified four key stress testing principles:

1. A banking organization’s stress testing framework should include activities and exercises that are tailored to and sufficiently capture the banking organization’s exposures, activities, and risks;
2. An effective stress testing framework employs multiple conceptually sound stress testing activities and approaches;
3. An effective stress testing framework is forward-looking and flexible; and
4. Stress test results should be clear, actionable, well supported, and inform decision-making.

The Agencies identified a new fifth principle in the final guidance from reorganizing and restating information in the proposed guidance. It is as follows:

5. An organization’s stress testing framework should include strong governance and effective internal controls.

The Agencies have noted this final guidance will become effective July 23, 2012, and is applicable in the areas of capital and liquidity.

Differences from Proposed Guidance

- Apart from the addition of the fifth principle, the changes to the final guidance are clarifications or minor modifications. The inclusion of the fifth principle is based on the Agencies’ view that strong governance and controls are necessary to ensure the framework is functioning as intended and contains core elements, including defined objectives, elements, structured activities and recommended actions, i.e.,
  - Stress testing should be integrated into the business, organization’s broader risk management and decision-making processes.
  - Stress testing should be used to inform the board and senior management regarding the alignment with the risk profile, and used within operating and strategic decision-making.
  - Senior management should have primary responsibility for stress testing framework design and implementation and the board should objectively perform a periodic review of the stress testing framework progress and results.

- Clarifications to the final proposal include:
  - A financial institution should design and implement a stress testing framework to align with the organization’s specific risk profile and chosen risk appetite. The Agencies expect stress testing methodologies to evolve as the organization evolves and to include evaluation of operational risks and liabilities.
    - The Agencies do not prescribe any required coefficients, models or benchmarks nor specify the type, frequency, approaches and number of testing scenarios to allow for individual organization flexibility.

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4 Final principles will only apply to institutions with greater than $10 billion in assets.
The framework should include clearly defined objectives, tailored business and risk scenarios, documented assumptions, methodologies, reporting capabilities and recommended actions based on results, documented policies and procedures and a minimum two-year testing horizon.

- Foreign Banking Organizations (FBOs) were provided flexibility to leverage their home country standards and the guidance clarifies that certain aspects may not apply or apply differently to U.S. branches or agencies of FBOs.
- Importantly, for the institutions between $10 and $50 billion, there is no requirement for public release of stress testing results. However, information may be disclosed through additional statutory, regulatory or supervisory requirements.
- Stress testing results would not directly lead to immediate action by a regulatory agency, but would be assessed as part of sound risk management practices and would be examined as part of the supervisory process.
- Senior management, not the board of directors, should have the primary responsibility for stress testing implementation and technical design. However, the board of directors continues to be responsible for reviewing the effectiveness of the stress testing framework and reviewing the results.

### Stress Testing Approaches and Application

The guidance details several approaches financial institutions can utilize to perform stress tests and the applications that would be appropriate within the institution. The guidance states various techniques should be used and all stress tests should be appropriately documented, supported and distributed to decision makers. The following summarizes these approaches:

- **Scenario Analysis:** The approach in which historical or hypothetical scenarios are used to assess the impact of multiple events, including extreme events.
  - Scenarios should reflect the financial institution’s unique risk profile and its underlying activities, exposures and lines of business. They should be realistic, account for relationships between variables, and varied enough to explore multiple relevant and timely scenarios.
  - Scenarios should be applied at various levels within the financial institution.
  - The institution may choose to apply the scenario within its current risk measurement tools or use an alternative.
  - Financial institutions may choose to use econometric or like analysis to estimate a relationship between some underlying factors, drivers or risk elements based on data sets and extrapolate over time. However, the guidance notes care should be taken not to make assumptions that relationships from benign or mildly adverse times will hold during severe situations.

- **Sensitivity Analysis:** An assessment of exposure activities and key risks when certain variables, parameters and inputs are “stressed” or “shocked.” The main purpose of sensitivity analysis is to test key assumptions individually on outcomes across a broad range of inputs and extreme adverse conditions. Examples of how sensitivity analysis can be used include:
Aggregated at various institution levels to estimate the impact from changes in singular or multiple variables and to assist institutions in better understanding how their models function.

Assess a combined impact of multiple variables, parameters, factors or drivers.

**Enterprisewide Stress Testing**: The assessment of the impact of selected scenarios across the entire institution. It requires robust scenario designs across varying risks and measures of impact across the institution.

- Scenarios typically stem from macroeconomic, market-wide and/or firm-specific events and could contain multiple events and consider system-wide losses. Once constructed, institutions should consider conducting scenarios of varying degrees to determine relative outcomes.
- Scenario variables are key to ensure a link between the scenario and an institution’s tangible impacts. However, assumptions across business lines and risks should remain constant.
- Institutions may benefit from simpler (fewer variables) enterprisewide scenarios due to the cumbersome nature of a large number of variables or complicated scenarios. Institutions will need to balance comprehensive scenarios with manageable scenarios.
- Institutions will need to develop consistent mechanisms for translating scenario outputs into meaningful risk parameters for use within the institution. Mindful translation of outputs will include understanding the interconnectedness of the scenarios within the organization.

**Reverse Stress Testing**: The approach by which an institution assumes an adverse outcome then works backward to create the scenario in which the outcome could occur. This approach allows an institution to focus on the types of events that could threaten an institution’s viability and the extent to which the severity of those events would affect the organization. The Agencies took note to reaffirm their belief in the value of reverse stress testing despite industry comments.

- Institutions should use this approach to evaluate the combined effect of multiple types of events.
- Institutions should focus on the highest and most relevant events that have a direct impact on their entire institution including insolvency and illiquidity for prioritization purposes. However, the institution should still explore various other events and scenarios that could pose risks.

### Assessing Adequacy of Capital and Liquidity

At a minimum, stress testing should be applied to the adequacy of capital and liquidity, including their interconnectivity. Institutions should clearly articulate the potential objectives and outcomes to required parties and the analysis should be performed in coordination with the institution’s overall strategy, annual planning cycles and periodically as needed.

**Capital Stress Testing**: Should be used to assist an institution in understanding the quality, composition of its capital and its ability to absorb losses on a forward-looking assessment and time horizon of at least two years. The tests complement the regulatory capital analysis and should show potential adverse effects on capital levels and ratios.
from risks not fully captured in regulatory capital ratios. Capital contingency planning should benefit from the identification of risks and exposures that may need to be altered in some situations to maintain adequate capital.

- Testing should incorporate the potential for changes in earnings, losses, reserves, and their effects on risk weighted assets, capital ratios and overall capital, and should explore the potential for balance sheet expansion and capital preservation options.
- Material subsidiaries should be assessed in their own right and with respect to their effect on overall capital levels and counterparty exposures where relative to capital.
- Enterprisewide capital stress testing should occur to determine loss estimates and the institution’s ability to absorb losses. Consideration for the allowance for loan and lease losses and other metrics should be utilized in conjunction with other internal approaches.

**Liquidity Stress Testing:** Should be used to identify and understand the depth, sources, and degree of liquidity and funding under various scenarios and analyze the impact on cash flows, overall liquidity position, profitability, and the institution’s financial condition over various time periods. Liquidity contingency planning should benefit from the information provided from these tests.

- Testing should incorporate the potential impacts of adverse developments affecting market and asset liquidity in addition to balance sheet expansions requiring additional funding. The outcomes should help determine the liquidity buffer and the institution’s ability to meet future funding needs.
- Enterprisewide liquidity testing, in addition to subsidiary level testing, should occur with the utilization of realistic assumptions and interactions between liquidity and other organizational functions.

- The stress testing framework should incorporate scenarios where capital and liquidity are compromised in tandem and can exacerbate each other. Additionally, an institution may need several scenarios to fully understand their relationship across the organization.

**Expected Challenges**

Anticipated challenges with this guidance are expected to include:

- The guidance creates a division between institutions with $10 billion in assets and greater and community bank institutions with less than $10 billion in assets. Recently issued public statements regarding community bank stress testing clarify that stress testing requirements for large banks do not apply to community banks. However, the Agencies do have expectations for community banks regarding their ability to conduct some type of forward-looking analysis to understand the potential impact of adverse outcomes on their condition.

- This guidance is being issued in advance of issuing final requirements for DFA stress testing. While the requirements surrounding DFA stress testing are important, they do not provide a complete articulation of the various types of stress testing and the ways stress testing can be applied. Therefore, this guidance provides an important foundation
for detailed use of stress testing. However, in the long term, institutions will have to ensure their entire framework is compliant with all requirements.

- The guidance is principles-based and this puts more pressure on individual institutions to design and implement individualized stress testing programs that fit their individual risk profiles. There will be no one-size-fits-all approach to a stress testing framework. Organizations will need to design and support all aspects of their stress testing framework to ensure fluid and transparent discussions with management, the board and regulators.

- The Agencies denied the request by some commenters to establish separate guidance for savings and loan holding companies (SLHCs) and federal savings associations stating that the guidance includes enough flexibility.

Summary
The final stress testing guidance is meant to provide institutions with key principles upon which to design their stress testing framework and programs. The guidance provides institutions with the opportunity to tailor their stress testing program to the unique risks and complexities of their organization. Generally speaking, the final guidance did not offer large-scale changes from the proposed guidance and industry feedback did result in clarifications of the Agencies’ intent. Implementation in practice is expected to be diverse given the principles-based approach, with leading practices continuing to evolve over time. This presents a potential moving target for institutions as they attempt to satisfy the Agencies’ expectations. However, in the long run this should also promote innovation in practices and support the continued refinement of an important risk management tool: stress testing.
About Protiviti

Protiviti (www.protiviti.com) is a global consulting firm that helps companies solve problems in finance, technology, operations, governance, risk and internal audit. Through our network of more than 70 offices in over 20 countries, we have served more than 35 percent of FORTUNE® 1000 and Global 500 companies. We also work with smaller, growing companies, including those looking to go public, as well as with government agencies.

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