



## DEPARTMENT OF THE TREASURY

### Office of the Comptroller of the Currency

#### 12 CFR Part 46

[Docket No. OCC–2012–0016]

### Policy Statement on the Principles for Development and Distribution of Annual Stress Test Scenarios

**AGENCIES:** Office of the Comptroller of the Currency, Treasury (OCC).

**ACTION:** Final guidance.

**SUMMARY:** This final guidance sets forth the general processes and factors to be used by the OCC in developing and distributing the stress test scenarios for the annual stress test required by the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 (“Dodd-Frank Act”) as implemented by the Annual Stress Test final rule (Stress Test Rule) published on October 9, 2012. Under the Stress Test Rule national banks and federal savings associations with total consolidated assets of more than \$10 billion (covered institutions) are required to conduct annual stress tests using a minimum of three scenarios (baseline, adverse and severely adverse) provided by the OCC. The Stress Test Rule specified that the OCC will provide the required scenarios to the covered institutions by November 15th of each year. On November 15, 2012, the OCC published interim guidance explaining how the OCC would develop the stress test scenarios.<sup>1</sup> The OCC is now adopting the interim guidance as final.

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<sup>1</sup> 77 FR 68047 (November 15, 2012).

**DATES:** This final guidance is effective [INSERT DATE 30 DAYS FROM PUBLICATION IN THE FEDERAL REGISTER].

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**SUPPLEMENTARY INFORMATION:**

**I. Background**

Section 165(i)(2) of the Dodd–Frank Act requires certain financial companies, including national banks and federal savings associations with total consolidated assets of more than \$10 billion (covered institutions), to conduct annual stress tests. The OCC published in the Federal Register on October 9, 2012, the final Stress Test Rule<sup>2</sup> implementing the requirements and setting out definitions and rules for scope of application, scenarios, reporting, and disclosure. Under the Stress Test Rule, covered institutions are required to conduct annual stress tests based on the annual stress test cycle set out in Table 1.

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<sup>2</sup> 77 FR 61238 (October 9, 2012).

**Table 1—Process Overview of Annual Stress Test Cycles  
for Covered Institutions**

<b>Key Step</b>	<b>Over \$50 Billion</b>	<b>\$10 to \$50 Billion</b>
1. OCC distributes scenarios for annual stress tests	By November 15	By November 15
2. Covered institutions conduct annual stress test and submit Annual Stress Test Report to the OCC and the Board	By January 5	By March 31
3. Covered institutions make required public disclosures	Between March 15 and March 31	Between June 15 and June 30

A key component of the annual stress test is the stress test scenarios. Scenarios are sets of conditions that affect the U.S. economy or the financial condition of covered institutions. Each scenario includes the values of the variables specified for each quarter over the stress test horizon. The variables specified for each scenario generally address economic activity, asset prices, and other measures of financial market conditions for the United States and key foreign countries. The OCC annually will determine scenarios that are appropriate for use for each annual stress test. The timeline in Table 1 provides that the OCC will distribute stress test scenarios to covered institutions by November 15th of each year. This document articulates the principles that the OCC will apply to develop and distribute those scenarios for covered institutions.

**II. Summary of Comment Received**

The OCC published interim guidance in the Federal Register on November 15, 2012, that explained the principles the OCC will apply to develop stress test scenarios. The interim guidance was effective immediately. The OCC solicited comment on all aspects of the interim

guidance and received one comment on the interim guidance. A public interest group believed that stress test scenarios should factor in the possible loss of short-term funding. The OCC agrees with the commenter that short-term funding and liquidity in general are factors that need to be considered. In this regard the OCC notes that the final guidance, while focusing on the capital position of covered institutions, would permit the use of interagency scenarios that include contraction in short-term funding, if appropriate. Additionally, the interagency Supervisory Guidance on Stress Testing for Banking Organizations With More than \$10 Billion in Total Consolidated Assets, which applies to all stress testing and not merely stress testing pursuant to the Stress Test Rule, specifically requires that stress tests take into account liquidity. (“[U]ses of a banking organization’s stress testing framework should include . . . assessing liquidity adequacy and informing contingency funding plans.”)<sup>3</sup> Finally, the OCC is working with the Federal Reserve Board and the Federal Deposit Insurance Corporation on rules to implement the Basel III liquidity provisions.<sup>4</sup>

The commenter also believed that stress testing models should be made publicly available so that they can be subject to “open source” critique. The commenter believed that “[t]here are no requirements that the federal regulators or the covered banks discuss the specification, statistical fit, or out-of-sample forecasting properties of the risk models they are using.” The commenter requests disclosure of both supervisory models and the stress testing models used by covered institutions. The first part of the request is not applicable to the OCC because the OCC is not required by the Dodd-Frank Act to run supervisory models. The second part of the request would require an amendment to the Stress Test Rule and is outside the scope of this guidance,

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<sup>3</sup> 77 FR 29458, 29465 (May 17, 2012).

<sup>4</sup> Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action, 77 FR 52792, 52796, n.11 (Aug. 30, 2012).

which addresses the process for developing the baseline, adverse, and severely adverse stress test scenarios. While the scenarios are key inputs for the company-run and supervisory stress test models, the scenarios are different from the models themselves. The OCC does, as part of the supervisory process, however, expect covered institutions to have a stress testing framework that incorporates validation or other type of independent review aimed at ensuring the integrity of stress testing processes and results.<sup>5</sup> If a banking organization engages a third-party vendor to support some or all of its stress testing activities, there should be appropriate controls in place to ensure that those externally developed systems and processes are sound, applied correctly, and appropriate for the banking organization's risks, activities, and exposures.<sup>6</sup>

### **III. Paperwork Reduction Act**

In accordance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3506; 5 CFR Part 1320, Appendix A1), the OCC reviewed the final guidance. The OCC may not conduct or sponsor, and an organization is not required to respond to, an information collection unless the information collection displays a currently valid Office of Management and Budget (OMB) control number. The final guidance contains no new collections of information under the PRA beyond those contained in OMB Control No. 1557-0311, the collection covering the Stress Test Rule.

### **IV. Principles for Development and Distribution of Annual Stress Test Scenarios**

The text of the guidance is as follows.

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<sup>5</sup> For validation of models and other quantitative tools used for stress testing, see OCC Bulletin 2011-12, "Supervisory Guidance on Model Risk Management," April 4, 2011, available at <http://www.occ.gov/news-issuances/bulletins/2011/bulletin-2011-12a.pdf>.

<sup>6</sup> 77 FR 29458, 29471 (May 17, 2012).

# **PRINCIPLES FOR DEVELOPMENT AND DISTRIBUTION OF ANNUAL STRESS TEST SCENARIOS**

## **I. INTRODUCTION**

Section 165(i)(2) of the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 requires certain financial companies, including national banks and federal savings associations with total consolidated assets of more than \$10 billion (covered institutions), to conduct annual stress tests. The Office of the Comptroller of the Currency (OCC) published in the Federal Register on October 9, 2012, a final rule (Stress Test Rule) implementing the requirements and setting out definitions and rules for scope of application, scenarios, reporting, and disclosure.<sup>1</sup> Under the Stress Test Rule, each year the OCC will distribute stress test scenarios to covered institutions. This document articulates the principles that the OCC will apply to develop and distribute those scenarios for covered institutions.

## **II. STRESS TESTS**

As defined by the Stress Test Rule, a stress test is "a process to assess the potential impact of stressful scenarios on the consolidated earnings, losses, and capital of a covered institution over the planning horizon, taking into account the covered institution's current condition, risks, exposures, strategies, and activities."<sup>2</sup>

Stress tests help covered institutions and the OCC determine whether those institutions have capital sufficient to absorb losses that could result from adverse economic conditions. The OCC

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<sup>1</sup> Annual Stress Test, 77 FR 61238 (October 9, 2012).

<sup>2</sup> 12 CFR 46.2 (Definition of Stress Test).

views stress test results as one source of forward-looking information that can help identify downside risks and assess the potential impact of adverse outcomes on capital adequacy. Stress tests are not the only tool the OCC uses for these purposes; a complete assessment of a covered institution's capital position typically includes a review of its capital planning processes, the governance concerning those processes, and the adequacy of capital under established regulatory capital measures. The OCC expects the board of directors and senior management of each covered institution to consider the results of the annual stress test when conducting capital planning, assessing capital adequacy, and evaluating risk management practices. The OCC also may use stress test results to determine whether additional analytical techniques and exercises are appropriate for a covered institution to employ in identifying, measuring, and monitoring risks to the financial soundness of the covered institution.

Under the Stress Test Rule, each covered institution is required to conduct an annual stress test using its financial data as of September 30 of each year, unless the OCC requires a different "as of" date for any or all categories of financial data. The stress test must assess the potential impact of specific scenarios on the regulatory capital of the covered institution and on certain related items over a forward-looking planning horizon, taking into account all relevant exposures and activities.<sup>3</sup> Under the Stress Test Rule, the planning horizon is at least nine quarters, consisting of the fourth quarter of the current calendar year plus all four quarters of each of the two subsequent calendar years.

### **III. SCENARIOS**

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<sup>3</sup> Id. at 46.6(a).

Scenarios are sets of conditions that affect the U.S. economy or the financial condition of covered institutions.<sup>4</sup> The OCC annually will determine scenarios that are appropriate for use under the Stress Test Rule. In conducting the stress test under the Stress Test Rule, each covered institution must use the scenarios provided by the OCC.

Each scenario includes the values of the variables specified for each quarter over the stress test horizon. The OCC expects that covered institutions may not need to use all of the variables provided and may need to estimate relationships to identify other variables, such as those reflecting local economic conditions, from the values the OCC provides. The OCC will review the appropriateness of estimation processes and resulting estimates, or other modifications of variables, through its ongoing supervisory processes.

The variables specified for each scenario generally address economic activity, asset prices, and other measures of financial market conditions for the United States and key foreign countries. Variables that describe economic activity likely will include, but not be limited to, the growth rate of gross domestic product, the unemployment rate, and the inflation rate. The OCC anticipates that the path (which reflects the level and rate of change) of the unemployment rate during the planning horizon in particular will be a key variable indicating the severity of economic stress, as this variable provides a simple and widely noted gauge of the state of the U.S. economy. This point is discussed further in this statement in connection with severely adverse scenarios.

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<sup>4</sup> Id. at 46.2 (Definition of scenarios).



Other variables may represent asset prices and financial market conditions, including interest rates. The OCC expects to specify scenarios using a fairly stable core set of variables, although variables may be added or deleted as the U.S. and global economic environment evolves. The OCC will attempt to minimize additions, redefinitions, or re-specifications from year to year, recognizing that the use of new or modified variables for stress tests may require potentially costly systems changes at covered institutions.

The scenarios provided by the OCC reflect at least three sets of economic and financial conditions, described in the rule as baseline, adverse, and severely adverse. The baseline broadly corresponds to the set of conditions expected to prevail over the term of the stress tests. The adverse and severely adverse scenarios introduce hypothetical stress conditions intended to test the safety and soundness of covered institutions as well as their capital planning processes. The aim is to assess the ability of covered institutions to identify and measure the risks they face under adverse conditions, and to ensure that appropriate amounts of capital exist to support those risks. The OCC will evaluate both the adequacy of the projections and the processes used in the company-run stress tests. The OCC expects covered institutions to be able to maintain ready access to funding, continue operations, meet obligations to creditors and counterparties, and continue to serve as credit intermediaries under conditions that are significantly more adverse than expected.

The *baseline* scenario establishes a benchmark set of conditions that incorporates the most current views on the macroeconomic outlook. These views are based on information obtained from government agencies, other public sector organizations, and private sector forecasters as close to the date of the annual stress test as possible. The baseline may be based on one or more of the “consensus” forecasts produced by various organizations, although the OCC may choose to depart from the consensus if necessary to provide a more appropriate baseline for the stress tests.

The *adverse* scenario is a hypothetical set of conditions designed to simulate a moderate level of stress that covered companies could experience, such as a mild-to-moderate U.S. recession. The adverse scenario may also be used to investigate other risks, perhaps including operational risks, that the OCC believes should be better understood or more closely monitored.

The *severely* adverse scenario is a set of quite challenging economic and financial conditions, such as those that might be experienced in a relatively severe recession. Three examples of severe recessions from recent U.S. experience may illustrate the anticipated depth of the severely adverse scenario as it relates to the unemployment rate:

- The 1973-75 recession, during which the unemployment rate increased 4.1 percentage points, from 4.9 percent in 1973Q3 to 9.0 percent in 1975Q2 (one quarter after the recession ended).

- The back-to-back recessions in 1980 and 1981-82, during which the unemployment rate increased 4.7 percentage points, from 6.1 percent in 1979Q4 to 10.8 percent in 1982Q4 (the last quarter of the recession).
- The 2007-09 recession, during which the unemployment rate increased 5.3 percentage points, from 4.7 percent in 2007Q3 to 10.0 percent in 2009Q4 (two quarters after the recession ended).

Other variables under the adverse and severely adverse scenarios would be expected to follow paths consistent with the depth and duration of previous recessions and with models of macroeconomic activity. The severely adverse scenario also may reflect other risks that are especially salient and that might not be captured by past recessions, including elevated levels of systemic risk.

The scenarios distributed by the OCC for the stress tests cover at least nine quarters. In addition, the OCC will generally publish scenarios that cover one year beyond the planning horizon of the stress test, to allow for the estimation of loan losses for the year following the stress planning horizon; this additional specification allows covered institutions to determine adequate levels of loan loss reserves.

The OCC believes that as a general matter all covered institutions should use the same set of scenarios and planning horizon so that the OCC can better compare results across institutions.

To that end, the OCC intends to provide one set of scenarios for use by all covered institutions. However, the OCC believes there may be circumstances that would warrant the use of different or additional scenarios or a planning horizon of more than nine quarters. Thus, under the Stress Test Rule the OCC reserves the authority to require a covered institution to use different or additional scenarios and/or planning horizons the agency may deem appropriate. For example, a covered institution may conduct business activities or have risk exposures that would encounter stress under conditions that differ materially from those that would generate stress for other institutions. The OCC expects such situations to be rare and anticipates making every effort to distribute the same scenarios to all covered institutions.

In addition to the minimum three scenarios, the OCC may require a covered institution with significant trading activities to include factors related to trading and counterparty risk in its stress test. Typically, these factors might include additional shocks to specific market prices, interest rates, rate spreads, or other key market variables consistent with historical or hypothetical adverse market events.

#### **IV. DEVELOPMENT AND DISTRIBUTION**

As one part of the process of developing scenarios, the OCC will gather information from outside entities and develop themes for the stress test scenarios, including the identification of potentially material vulnerabilities or salient risks to the financial system, and consider potential paths for individual variables. The outside entities may include academic experts, staffs of international organizations, foreign supervisors, financial institutions that regularly provide

forecasts, and other private sector risk analysts that regularly conduct stress tests based on U.S. and global economic and financial scenarios. The OCC will use the information gathered in this manner to inform its consideration of potential risks and scenarios.

The OCC, the Board of Governors of the Federal Reserve System (Board), and the Federal Deposit Insurance Corporation (FDIC) (Agencies) expect to consult closely to develop scenarios for stress testing. Absent specific supervisory concerns, the OCC anticipates that the annual stress test scenarios distributed by the OCC will be the same as or nearly identical to the scenarios developed by the Board for the supervisory stress tests conducted by the Board under Section 165(i)(1). This would mean the same economic and financial variables following the same paths as used in the scenarios for the Board's supervisory stress tests.

Although the Agencies generally expect to consult closely on scenario development, they may have different views of risks that should be reflected in the stress test scenarios used by covered institutions for the annual stress test. The OCC may distribute scenarios to covered institutions that differ in certain respects from those distributed by the FDIC and the Board if necessary to better reflect specific OCC concerns. The OCC expects such situations to be extremely rare, however, and anticipates making every effort to avoid differences in the scenarios required by each agency.

The OCC anticipates that the stress test scenarios will be revised annually as appropriate to ensure that each scenario remains relevant under prevailing economic and industry conditions. These yearly revisions will enable the scenarios to capture evolving risks and vulnerabilities. The need to ensure that scenarios do not become outdated because of economic and financial developments makes a lengthy process of review and comment concerning scenarios prior to distribution each year impractical. However, the process of consultation with the Board and the FDIC, as well as the ongoing interaction of OCC staff with public and private sector experts to obtain views on salient risks and to obtain suggestions for the behavior of key economic variables, should ensure that the stress conditions reflected in the scenarios are well suited to their purpose.

The scenario development process culminates with the distribution of the scenarios to all covered institutions no later than November 15 of each year. The scenario descriptions provided to covered institutions will include values for economic and financial variables depicting the paths those variables follow under the scenarios. The OCC believes that distribution of the scenarios by November 15 aligns with similar processes at the FDIC and the Board.

Dated: October 21, 2013

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Thomas J. Curry,  
Comptroller of the Currency.

BILLING CODE 4810-33-P

[FR Doc. 2013-25421 Filed 10/25/2013 at 8:45 am; Publication Date: 10/28/2013]