BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
WASHINGTON, DC 20551

DIVISION OF BANKING
SUPERVISION AND REGULATION

November 4, 2016

Lawrance Evans, Jr.
Director
Financial Markets and Community Investment
United States Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Evans:

Thank you for providing the Board of Governors of the Federal Reserve System ("Federal Reserve") with an opportunity to review the final draft of the Government Accountability Office ("GAO") report titled: *Federal Reserve: Additional Actions Could Help Ensure the Achievement of Stress Test Goals* (GAO-17-48). The report reviews the Federal Reserve's stress testing and capital planning programs, specifically the Dodd-Frank Act Stress Tests ("DFAST") and the Comprehensive Capital Analysis and Review ("CCAR"). We appreciate the report's recognition that the Federal Reserve's implementation of stress test programs during and since the financial crisis has played a key role in evaluating and maintaining the stability of the U.S. financial system.

The GAO's report makes fifteen recommendations to the Federal Reserve, which fall into five categories: inter-agency coordination, exclusion of company-run stress tests from CCAR, transparency of the CCAR qualitative assessment, scenario design process, and model risk management and communication. We address the recommendations in each of these categories. A complete list of the recommendations is included as Appendix A of this letter.

Inter-agency Coordination

The report recommends that the Federal Reserve, the Federal Deposit Insurance Corporation ("FDIC"), and the Office of the Comptroller of the Currency ("OCC") should harmonize their agencies' approach to granting extensions and exemptions from stress test requirements. The Board appreciates the concerns raised by GAO and understands the importance of a coordinated approach to stress testing. The Federal Reserve, OCC, and FDIC (collectively, the "agencies") cooperate closely in administering their stress testing programs for their regulated institutions. The agencies developed their company-run stress testing regulations in close coordination. In particular, the agencies worked closely together to ensure the final rules are consistent and comparable in the scope of application, scenarios, data collection and reporting, and disclosure.

Going forward, the Federal Reserve will coordinate with the OCC and the FDIC regarding any extensions and exemptions. In this regard, staff of the agencies will meet at least annually, and more frequently as needed, to discuss planned extensions and exemptions from the stress test rules and prior to action by the relevant agency or agencies.

Exclusion of Company-Run Tests from CCAR

The report recommends that the Federal Reserve remove company-run stress tests from the CCAR quantitative assessment, as their inclusion may create incentives for companies to conduct stress tests that are not meaningful. The Federal Reserve agrees that the CCAR program should provide firms with strong incentives to create meaningful and severe stress tests that are useful for forward-looking capital planning and risk management. As the report notes, the Federal Reserve's continued focus on qualitative assessments of the stress testing and capital planning practices of firms aims to ensure that they have sound practices, develop stress scenarios that reflect their own idiosyncratic risks, and produce and incorporate into their capital plan results that are consistent with those scenarios.

Consistent with the GAO's recommendation, the Federal Reserve is currently evaluating whether to focus only on the supervisory stress tests in setting post-stress capital requirements. As Governor Tarullo set forth in his September 26th speech, "Next Steps in the Evolution of Stress Testing,"[1] the Federal Reserve is considering some changes to CCAR, including the use of

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[1] Governor Daniel K. Tarullo, "Next Steps in the Evolution of Stress Testing": http://www.federalreserve.gov/newsevents/speech/tarullo20160926a.htm

a stress capital buffer approach to setting post-stress capital requirements. Under the stress capital buffer approach, the stress capital buffer would be set based on the results of the supervisory stress test and not on the results of company-run stress tests. If adopted, the stress capital buffer approach would address the concerns raised by the report regarding the incentives of firms to conduct stringent company-run stress tests.

The company-run stress tests are a critical element of the Federal Reserve's stress testing and capital planning program. The Dodd-Frank Act requires firms to conduct stress tests using the supervisory scenarios, and the capital plan rule implements this requirement in order to ensure that firms conduct a stress test under a scenario that reflects the firm's idiosyncratic risks. The Federal Reserve then evaluates the company-run stress test in the qualitative portion of the CCAR assessment to ensure it reflects the firm's idiosyncratic risks.

Transparency of the CCAR Qualitative Assessment

The report recommends that the Federal Reserve take several steps to improve the transparency of the CCAR qualitative assessment and overall process, including by disclosing more information about the qualitative assessment methodology, releasing periodic descriptions of best practices, providing greater detail about the reasons for individual objection decisions, and enhancing the CCAR FAQ process.

Transparency in stress testing increases the effectiveness of supervision and enhances market discipline. The Federal Reserve has continued to enhance the transparency of its supervisory expectations, its process for evaluating the strength of each CCAR firm's capital planning processes, and the results of the qualitative evaluation that provides the basis for an objection to a firm's capital plan.

Every year since its inception in 2011, the Federal Reserve has taken steps to enhance the transparency of the CCAR qualitative assessments. In August 2013, the Federal Reserve published "Capital Planning at Large Bank Holding Companies: Supervisory Expectations and Range of Current Practice." Subsequently, in December 2015, the Federal Reserve issued supervisory guidance on capital planning—Supervision and Regulation Letters 15-18 and 15-19—to consolidate and clarify supervisory expectations. Most recently, the Federal Reserve published a summary of considerations for CCAR qualitative assessments and additional details on the results of the qualitative assessment in the CCAR 2016 results disclosure document.

Consistent with these ongoing efforts, the Federal Reserve will continue to enhance transparency in the areas recommended by the GAO, including disclosing additional information on the qualitative assessment process, detailing its reasons for decisions to object to specific firms' capital plans, and describing practices that the Federal Reserve considers to be stronger or leading practices.

In addition, the Federal Reserve will continue to enhance the process by which it responds to firms' inquiries, including by providing firms an estimate of when they should receive responses to their inquiries, with the understanding that more complex questions may take longer to resolve.

Scenario Design Process

The report recommends that the Federal Reserve assess the overall level of severity of its severely adverse scenario. The Federal Reserve agrees with the finding in the report that scenario design is a fundamental component of stress testing. A robust scenario design process is critical to evaluating whether firms have sufficient capital to continue operations, including lending to households and individuals, in times of stress. Consistent with the GAO's recommendations, the Federal Reserve continues to engage with academics and practitioners and undertake its own program of research into these issues. In addition, as a result of the Federal Reserve's recent CCAR review, the Federal Reserve is considering several related enhancements to the scenario design process.

The GAO's recommendations touch on several issues in scenario design. As noted by the GAO, a robust scenario design process should allow for outcomes that fall outside the range of historical experience, consider qualitatively different types of scenarios, not contribute to the tendency of the financial system to amplify economic cycles, and consider the trade-off between severity and credit availability.

The scenario design framework currently considers levels of severity that fall outside U.S. postwar historical experience; for example, in the severely adverse scenario used in 2012 and 2013, the unemployment rate peaked substantially above the maximum rate observed in the U.S. postwar recessions. Each year's scenarios have, in addition, featured risks that were salient at that time but had not yet occurred, such as additional financial distress in Europe.

Consistent with the recommendation on the use of multiple scenarios, the Federal Reserve currently uses two hypothetical scenarios: an "adverse" scenario and a "severely adverse" scenario. The adverse scenarios used in past CCAR exercises have differed substantially from the severely adverse, improving our understanding of the banking system's resilience to multiple sources of stress. In addition, the Federal Reserve considers multiple alternative scenarios internally outside of CCAR. As the report notes, however, there are substantial costs associated with expanding the number of supervisory scenarios used in the annual CCAR/DFAST exercises. Promulgating and evaluating more scenarios would increase the burden on the banks participating in the exercise and the Federal Reserve.

As the report notes, the current framework features an important countercyclical feature designed to increase severity during benign economic times. Loss rates have generally declined despite this feature in part due to the structural improvement of banks' balance sheets, as the exposures accumulated in the run-up to the 2007-2009 recession are discharged.

Finally, the tradeoff between severity and credit availability depends on a number of dynamic factors, including bank risk profiles, the nature of the scenario, and the macroeconomic and financial environment. In part for this reason, the framework is designed to formulate a severe-but-plausible scenario in which banks should be able to continue to function to support the real economy. Banks capitalized against such scenarios should be able to continue to make credit available even in the face of a severe recession. The framework is not designed to generate the most severe potential outcomes in part because using such scenarios to determine capital needs could impinge on credit availability.

In its recent review of the stress testing program, the Federal Reserve evaluated the scenario design process, including the four issues identified in the report. As detailed in Governor Tarullo's September 26th speech, the Federal Reserve is currently considering certain revisions to its scenario design framework in light of this review, including the incorporation of additional scenarios or scenario elements, such as funding cost shocks, fire sale externalities, and the second-round effects of the distress of a common counterparty; lessening the severity of changes in the unemployment rate during actual periods of downturn to reduce the procyclicality of the scenarios; and undertaking a broader research agenda centered on the feedback between stress events and the broader macroeconomy.

Model Risk Management and Communication

The report recommends that the Federal Reserve take steps to improve its ability to better manage and understand model risk. Since the beginning of CCAR, the Federal Reserve has applied its model development principles to its system of stress testing models, including interactions between models such as cases where the output from one model is used as an input for another model. In response to the recommendation, the Federal Reserve will take steps to document more clearly its current practice relating to its system of models.

As the report notes, the Federal Reserve maintains extensive documentation of all of its supervisory stress testing models and subjects them to annual review and validation. The Federal Reserve also maintains comprehensive documentation of the development, assessment, validation, and finalization of its system of models, with detailed descriptions of inputs and outputs of each model, including those inputs generated by other models. However, the Federal Reserve agrees that further enhancing documentation of the system of stress testing models will help strengthen the current processes, and, as a result, intends to expand its documentation of the system of models to include a description of the interaction among component models and the effect of modelling assumptions made in one model on the output of other models and resulting post-stress capital ratios.

The Federal Reserve already conducts a range of exercises to assess the sensitivity of stress testing output, including assessments of how model assumptions impact post-stress capital ratios. The Federal Reserve plans to further expand the scope of these sensitivity analyses in the future to more explicitly cover the full system of models.

The report recommends that the Federal Reserve design and implement a process to communicate information to the Board about the range and sources of uncertainty surrounding the post-stress capital ratio estimates during CCAR deliberations, including tolerance levels for key risks and post-stress capital ratio uncertainty. These recommendations are consistent with ongoing work to improve the governance and information flow that is underway as a result of the Federal Reserve's 2014 CCAR governance review. In particular, the Federal Reserve established the Supervisory Stress Test Model Governance Committee ("Committee") in 2015 to enhance its model governance structure and information flows. The Committee brings together senior staff responsible for stress test model development, validation, and scenario design to discuss key issues relating to the supervisory stress testing program, including model risk and communication of model risk issues to the Federal Reserve, and to advise the Director of the Federal Reserve's Division of Banking Supervision and Regulation, including approval of supervisory stress testing models.

The Committee has been developing a regularized process of communicating to the Federal Reserve the state of model risk in the Federal Reserve's supervisory stress test. Starting late this year, staff will begin to advise the Board annually on the supervisory stress test models and their potential impact on the uncertainty of post-stress capital ratio estimates as well as known risks in the overall validation program. The briefing to the Federal Reserve will also serve as an opportunity to discuss model risk appetite.

We appreciate the GAO's review of the Federal Reserve's stress testing and capital planning programs, their professional approach to the review, and the opportunity to comment.

Sincerely,

Michael S. Gibson
Director

Appendix A. GAO Recommendations on Federal Reserve Stress Testing

Inter-Agency Coordination

[1.] To help improve the consistency of federal banking regulators' stress test requirements and help ensure that institutions overseen by different regulators receive consistent regulatory treatment, the heads of the Federal Reserve, FDIC, and OCC should harmonize their agencies' approach to granting extensions and exemptions from stress test requirements.

Exclusion of Company-Run Tests from CCAR

[2.] To help provide stronger incentives for companies to perform company-run stress tests in a manner consistent with Federal Reserve goals, the Federal Reserve should remove company run stress tests from the CCAR quantitative assessment.

Transparency of Qualitative Assessment

To increase transparency and improve CCAR effectiveness, the Federal Reserve should take the following four actions:

[3.] Publicly disclose additional information that would allow for a better understanding of the methodology for completing qualitative assessments, such as the role of ratings and rankings and the extent to which they affect final determination decisions.

[4.] For future determinations to object or conditionally not object to a company's capital plan on qualitative grounds, disclose additional information about the reasons for the determinations.

[5.] Publicly disclose, on a periodic basis, information on capital planning practices observed during CCAR qualitative assessments, including practices the Federal Reserve considers stronger or leading practices.

[6.] Improve policies for official responses to CCAR companies by establishing procedures for notifying companies about time frames relating to Federal Reserve responses to company inquiries.

Scenario Design Process

To strengthen the scenario design process, the Federal Reserve should assess-and adjust as necessary-the overall level of severity of its severely adverse scenario by taking the following two actions:

[7.] considering levels of severity that may fall outside U.S. postwar historical experience, and

[8.] expanding consideration of the tradeoffs associated with different degrees of severity.

[9.] To improve understanding of the range of potential crises against which the banking system would be resilient and the outcomes that might result from different scenarios, the Federal Reserve should assess whether a single severe supervisory scenario is sufficient to inform CCAR decisions and promote the resilience of the banking system. Such an assessment could include conducting sensitivity analysis involving multiple severe supervisory scenarios potentially using CCAR data for a cycle that is already complete, to avoid concerns about tailoring the scenario to achieve a particular outcome.

[10.] To help ensure that Federal Reserve stress tests do not amplify future economic cycles, the Federal Reserve should develop a process to test its proposed severely adverse scenario for procyclicality annually before finalizing and publicly releasing the supervisory scenarios.

Model Risk Management and Communication

Finally, to improve the Federal Reserve's ability to manage model risk and ensure that decisions based on supervisory stress test results are informed by an understanding of model risk, the Federal Reserve should take the following five actions:

[11.] Apply its model development principles to the combined system of models used in the supervisory stress tests.

[12.] Create an appropriate set of system-level model documentation, including an overview of how component models interact and key assumptions made in the design of model interactions.

[13.] Design and implement a process to test and document the sensitivity and uncertainty of the model system's output-the post-stress capital ratios used to make CCAR quantitative assessment determinations-including, at a minimum, the cumulative uncertainty surrounding the capital ratios and their sensitivity to key model parameters, specifications, and assumptions from across the system of models.

[14.] Design and implement a process to communicate information about the range and sources of uncertainty surrounding the post-stress capital ratio estimates to the Board during CCAR deliberations.

[15.] Design and implement a process for the Board and senior staff to articulate tolerance levels for key risks identified through sensitivity testing and for the degree of uncertainty in the projected capital ratios.