



The Fed's Proposed Stress Testing Changes Are a Mixed Bag

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This issue brief has been adapted from a regulatory comment letter submitted to the Board of Governors of the Federal Reserve System.¹

In December, the Federal Reserve released a package of proposed changes to its framework for supervisory stress testing.² The Fed's stress tests for large bank holding companies and systemically important nonbank financial companies have been arguably the most important prudential regulatory tool implemented following the 2007-2008 financial crisis. In a stress test, a regulator uses economic models to project an institution's net income, capital ratios, and overall balance sheet given some hypothetical specified shock and resulting economic downturn. A robust stress testing regime helps regulators limit the chance and severity of future crises by ensuring that the banking sector has enough loss-absorbing equity capital to continue lending and providing financial intermediation through a severe economic downturn.

The Fed's package of proposed revisions includes the affirmation of some important existing stress testing principles as well as one material improvement to the scenarios currently used in stress tests. However, one prong of the package of proposals—as well as recent comments made by Federal Reserve Vice Chair for Supervision Randal Quarles—foreshadow a concerning shift in the level of stress testing information that is made public.³ Moreover, this package does not include several potential proposals that would strengthen the stress testing regime and that should take precedence over this package of revisions.

With the Senate's passage of S.2155—the Economic Growth, Regulatory Relief, and Consumer Protection Act—the Fed's proposed package of stress testing revisions is likely only the first in what will be a series of changes to its stress testing regime. S.2155 contains many unfortunate provisions that could undermine the stress testing framework, so this will be a critical issue to monitor moving forward.⁴

This issue brief highlights the importance of an effective stress testing framework and analyzes certain aspects of the Fed’s recent package of proposed changes to the stress testing framework.

Stress testing reduces risk across the U.S. economy

Stress tests are an important, forward-looking supervisory tool that enables regulators to analyze hypothetical scenarios and helps them to evaluate whether individual banks—and the banking sector in aggregate—are a source of resiliency for the U.S. economy in the face of a severe downturn. In 2009, the 19 banks with more than \$100 billion in assets took part in the first stress tests conducted by the Fed.⁵ The Supervisory Capital Assessment Program (SCAP), in conjunction with other crisis-era initiatives, helped to efficiently recapitalize the banking sector and gave markets confidence in the banking sector’s ability to provide credit and financial intermediation in the wake of the crisis.

Based on the SCAP’s success, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 required supervisory stress testing for banks with more than \$50 billion in assets; company-run stress testing for banks with more than \$10 billion in assets; and both supervisory and company-run stress testing for systemically important nonbank financial companies supervised by the Fed.⁶ The Fed also used existing supervisory authority to formalize a parallel stress testing framework known as the Comprehensive Capital Analysis and Review (CCAR). The Dodd-Frank Act Stress Test (DFAST) assumes a standardized capital plan for banks based on recent dividend levels and does not include any share buybacks.⁷ The CCAR, however, incorporates individual capital plans submitted by banks that include both dividends and share buybacks. In addition to the quantitative analysis, the CCAR has a qualitative component—which is not included in DFAST—for banks with more than \$250 billion in assets. The qualitative analysis evaluates the banks’ capital planning processes to ensure that banks have reliable practices for determining their capital needs relative to the risks they face.⁸ Both the DFAST and CCAR have continued to strengthen the capital positions and capital planning processes at the largest firms. Since the first stress tests in 2009, banks with more than \$50 billion in assets have doubled their common equity capital, increasing their loss-absorbing cushions by more than \$750 billion.⁹ Stressing bank balance sheets through this supervisory exercise further improves the internal risk management frameworks at banks and ideally helps to prevent the sort of complacency that can enter markets, institutions, and even regulatory agencies as memories of the previous crisis fade.

The Fed's stress testing proposal contains some benefits

Stress testing principles

The package of proposals released for comment by the Fed includes a statement of principles for stress testing as well as a list of policies and procedures meant to implement those principles.¹⁰ Several principles outlined in the proposal are appropriately strong and must be preserved. Stress testing in particular must remain independent, forward-looking, and conservative. Supervisory stress tests rely on models and assumptions developed by the Fed and do not rely on the internal models developed by the firms being tested. This regulatory independence is an important principle to maintain. Firms' own internal stress testing models may be designed, to the greatest extent possible, to limit their capital requirements. As a prudential regulator tasked with maintaining financial stability and the safety and soundness of the financial sector, the Fed clearly has different motivations—making true independence vital.

The stress tests conducted by the Fed must also be forward-looking. Repeating the same scenarios and shocks year after year would rely too heavily on historical data and would allow banks to easily predict the following year's exercise design. While incorporating historical data is necessary, the shocks and stress in stress test scenarios should reflect how the financial sector and the economy writ large is changing over time. They should also include emerging threats such as cybersecurity or financial technology-related stresses.

Furthermore, it is crucial that stress test scenarios are conservative. Prior to the 2007-2008 financial crisis, both regulators and financial market participants lacked imagination regarding the types of shocks that could rattle the financial sector as well as the impact that those shocks could have on the financial sector's ability to serve the real economy. Accordingly, the possibility of severe shocks was significantly discounted. Few thought a sharp national downturn in the housing market was possible or that financial engineering could magnify risk instead of strictly limiting it. Robust stress testing scenarios must ensure that the financial sector is resilient to both normal and severe downturns. Recent stress test results have led to concern as to whether this principle is being fully carried out in practice.¹¹

One important element of stress testing assumptions outlined by the Fed is maintenance of the credit supply. The point of stress testing is to ensure that firms have adequate capital to absorb losses during a period of severe stress, while still fulfilling the credit provision and financial intermediation roles the real economy needs to thrive. Resilient firms must be able to lend during times of stress. If firms simply pulled back on their lending and deleveraged in order to survive, the financial sector may only have limited firm failures, but the economy as a whole will experience the sharp pains of a credit contraction. The Fed correctly highlights the importance of keeping the aggregate credit supply constant or increasing in the stress testing framework.

Short-term funding risk

In addition to outlining stress testing principles, the Fed's package of proposals includes the addition of short-term funding risk to the supervisory scenarios.¹² Adding this risk factor by including a significant increase in the cost of short-term funding would be a positive addition to the stress testing framework, particularly because an overreliance on runnable, short-term funding was a key factor in the 2007-2008 financial crisis. Before its downfall, for example, Lehman Brothers Holdings Inc. was funding as much as \$200 billion of its balance sheet through overnight repurchase agreements.¹³ Firms that rely heavily on short-term funding put themselves at significant risk to runs, as creditors may not roll over short-term loans during a period of stress. A run on short-term funding markets, in which the cost of said funding would increase significantly, can force a firm to liquidate assets at fire-sale prices—leading to steep losses and potentially pushing down asset prices across certain markets.

Stressing this source of funding during the supervisory stress tests would help regulators determine which firms might be overly reliant on less stable forms of funding and would rightfully require additional capital buffers to protect against that run risk. The Fed has already recognized the importance of higher capital buffers for firms with heightened funding vulnerability in other rulemakings. In the Fed's global systemically important bank (G-SIB) capital surcharge—an additional required capital buffer for the most systemically important banks in the United States—firms with a higher reliance on short-term debt face a higher capital requirement.¹⁴ Adding a short-term funding component to the stress testing framework would simply harmonize the Fed's approach to short-term funding in the G-SIB surcharge with its stress tests.

The Fed's stress testing proposal has some shortcomings

Transparency

An appropriate level of transparency surrounding stress testing is an important goal. The public, including policymakers and academics, should have enough information to judge the robustness and execution of stress tests—from the stressfulness of the scenarios to the projected losses experienced by each individual bank. Over the past seven years, the Fed has significantly improved the transparency surrounding the stress tests. The Fed's public release of the 2011 CCAR results, for example, was 21 pages and did not include a bank-by-bank breakdown of pre- and post-scenario capital levels.¹⁵ The 2017 CCAR public release, however, was 100 pages and included detailed bank-by-bank information with an explanation of the adverse and severely adverse economic scenarios.¹⁶

The Fed's package of proposed stress testing changes includes revisions to the amount of publicly disclosed information. The proposed changes, set forth in the name of transparency, include releasing the modeled loss rates on different groupings of loans and the estimated loss rates on hypothetical portfolios of loans.¹⁷ In making any changes to the stress testing transparency regime, however, the Fed must be cautious of revealing too much. Making too much information on loss projections and the Fed's models public might enable firms to reverse engineer the stress tests.¹⁸ And providing detailed information on the scenarios in advance of the tests—as well as projected loss estimates for certain portfolios—may give banks the opportunity to tailor their balance sheets in advance of the test in order to minimize their projected losses and in turn their required capital cushions.¹⁹ Balance sheet tailoring ahead of stress testing periods would increase the correlation risk across the banking sector and undermine the effectiveness of the stress tests. When issuing its final rule on this package of policies, the Fed must clearly demonstrate that its proposal to disclose projected loss rates on categories of loans and hypothetical portfolios of loans does not cross that line. Again, the Fed should be sure that the disclosure of this information in no way weakens the efficacy of the stress tests.

While the proposed transparency-related changes to the stress testing framework may not cross the line, recent comments from Vice Chair for Supervision Quarles suggest that he may push for even more extensive disclosures in the future. In a January speech at the American Bar Association's annual Banking Law Committee Meeting, Quarles stated, "Finally, as I mentioned earlier, an enhanced stress testing transparency package was released for public comment last month. I personally believe that our stress testing disclosures can go further."²⁰ In the speech, Quarles did at least recognize that there are risks associated with disclosing too much information. It's unclear what additional elements of the stress testing framework Quarles would like to see disclosed beyond those included in the recent package of proposals. It is clear, however, where the Trump administration stands on this issue. A June banking regulation report released by the Treasury Department recommends that "the Federal Reserve should subject its stress-testing and capital planning review frameworks to public notice and comment, including with respect to its models, economic scenarios, and other material parameters and methodologies."²¹ The Treasury Department's recommendation would severely undermine the stress testing regime and allow banks to engage in regulatory capital arbitrage by tailoring their balance sheets to the Fed's models. The recommendation would also allow banks to influence the stressfulness and design of the macroeconomic scenarios through the public notice and comment process.²² The benefits of the current proposed transparency changes likely outweigh the negatives—but more concerning changes could be on the horizon.

The Fed's proposal should address higher priorities

An appropriate level of transparency is a worthy goal, but it should not be the Fed's top stress testing priority under the leadership of Chair Jerome Powell and Vice Chair Quarles. Proposing a rule to incorporate the G-SIB capital surcharge into the post-stress capital minimums is a policy that has long been discussed at the Fed and should be at the top of the Fed's to-do list.²³ The largest banks currently have the same post-stress minimum capital requirements—or the required minimum capital ratios after accounting for stress test-induced losses—as smaller firms, despite different regulatory capital requirements. The most systemically important firms should internalize the potential systemic costs associated with their failure both in regulatory capital requirements and in stress testing. Increasing the post-stress minimums for the largest firms was previously discussed as part of a move to propose a stress capital buffer as a replacement for the capital conservation buffer.²⁴ Put simply, the stress capital buffer concept would integrate stress test losses with regulatory capital requirements. These potential changes would likely increase the loss-absorbing capital cushions at the largest banks and would further harmonize the overall bank capital regime. Since former Fed Governor Daniel Tarullo—the point person for banking regulations under former Chair Janet Yellen—stepped down, there have been no additional updates on these potential proposals.

The Fed should also prioritize evolving its stress testing regime to better reflect financial sector interconnectedness—how individual financial institutions react to and transmit stress throughout the system. Current stress tests examine the potential losses at individual banks given a severe shock and economic downturn, which is a useful but imperfect representation of how the financial system works. The tests do not analyze what happens after the banks experience those losses nor how nonbank firms fit into the picture of financial sector stress. Are certain banks likely to sell off particular assets at fire-sale prices? How will selloffs impact other banks and nonbanks that hold those assets? How will certain funding markets, including funding provided by nonbank firms, react to the stressed environment? These second-order effects to the initial bank balance sheet losses are not currently captured by stress testing, but over the past several years research has been conducted on how stress tests can evolve to address the intricacies of financial sector interconnectedness.²⁵ Agent-based modeling—a useful modeling approach in nonfinancial fields such as epidemiology—is one promising area of research.²⁶

Ensuring stress test transparency, affirming stress testing principles, and including short-term funding market stress in the scenarios are all important. However, increasing post-stress capital minimums for G-SIBs, implementing a stress capital buffer, and developing a new era of stress test models should all be higher priorities for the Fed.

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Endnotes

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