Stress Testing

More Focused Tests for Better Supervision and Management

The Core Principles for Regulating the United States Financial System, enumerated in Executive Order 13772, include the following that are particularly relevant to an evaluation of current U.S. financial stress testing and capital planning rules:

(c) foster economic growth and vibrant financial markets through more rigorous regulatory impact analysis that addresses systemic risk and market failures, such as moral hazard and information asymmetry;

(f) make regulation efficient, effective, and appropriately tailored; and

(g) restore public accountability within Federal financial regulatory agencies and rationalize the Federal financial regulatory framework.

The American Bankers Association\(^1\) offers these views to the Secretary of the Treasury in relation to the Directive that he has received under Section 2 of the Executive Order.

- Stress testing, appropriately designed and administered, can be a powerfully useful tool, offsetting the static structure of Basel capital and liquidity rules.

- The opaque way in which stress testing is designed and applied undermines its value and raises risks of arbitrary regulatory action. Stress testing supervisory models and scenarios should be published for public comment.

- Revisions are needed so stress tests reflect likely and prudent business actions under stress scenarios.

- DFAST should not be applied to midsize banks.

- The countercyclical GSIB surcharge buffer should not be made procyclical under the CCAR.

The value of stress testing for both supervision and management is found in the opportunity well-designed stress tests offer to apply dynamic risk measuring that offsets the more static risk measures found in capital and liquidity regulations. Its weakness derives from the nature of stress tests as guesses of the future. That means that they are sure to embody significant elements of error. The danger is that the more detailed the future scenarios and the evaluations,

---

\(^1\) The American Bankers Association is the voice of the nation’s $17 trillion banking industry, which is composed of small, regional, and large banks that together employ more than 2 million people, safeguard $13 trillion in deposits, and extend more than $9 trillion in loans.
the more the errors, increasing the costs of applying findings that admittedly contain errors to the authentic world in which banks operate. Stress tests are valuable tools, to be handled with care, with eyes wide open to their shortcomings.

I. Stress Testing: An Important, Evolving Tool, in Need of Refinement

A. The Large Bank Stress Testing Program

Stress testing has long been a standard concept in bank supervision in the United States, for all banks. The CAMELS supervisory rating system incorporates the concept of stress testing in the evaluation of “Sensitivity,” the S in CAMELS. Under sensitivity, bank supervisors evaluate a bank’s management of significant market movements and conditions, such as interest rate changes.

At the bottom of the recent recession, regulators began an additional program of stress testing for larger banks, a practice reinforced under provisions of the Dodd-Frank Act. These tests have been distinct from the standard program of bank examination. In recent months, though, regulatory leaders have spoken of moving toward reintegrating stress testing into overall bank supervision. The increasing overlap between the two exercises make such a transition logical.

For the majority of banks with more than $50 billion in assets, the Federal Reserve’s Comprehensive Capital Adequacy Review (CCAR) stress test has become the binding capital constraint. The CCAR is administered in connection with a second strand of stress testing developed specifically pursuant to the Dodd-Frank Act (DFAST). In practice, the Federal Reserve has subjected banks’ capital plans (including dividends and capital distributions) to the results of these stress tests, approving, limiting, or denying banks’ capital plans as the Federal Reserve has deemed appropriate in light of its evaluation of these stress test results.

The two complementary tests can be described as follows:

- **The CCAR** evaluates a bank’s capital adequacy, capital planning process, and planned capital distributions, such as dividend payments and common stock activities. As part of the CCAR, the Federal Reserve evaluates whether banks have sufficient capital to continue operations throughout times of economic and financial market stress and whether they have robust, forward-looking capital planning processes that account for their unique risks.

- **Dodd-Frank Act supervisory stress testing** (DFAST) is a forward-looking quantitative evaluation of the impact of stressful economic and financial market conditions on bank capital. This program serves to inform the Federal Reserve, financial companies, and the general public of how institutions’ capital ratios might change under a hypothetical set of stressful economic scenarios developed by the Federal Reserve. This supervisory stress test, after incorporating firms’ planned capital actions, is also used for quantitative assessment in the CCAR.
These components combine to create a powerful, flexible, and dynamic supervisory tool that the regulators use to evaluate a bank’s financial resilience and ability to operate within the changes of the business cycle. Surprise is unwelcome to both bank supervision and bank management. Well-designed and administered stress testing can and should help reduce undesirable surprise.

As part of the quantitative assessment under the CCAR, the Federal Reserve develops and releases three hypothetical macroeconomic and financial market scenarios. These scenarios are used in both company run and supervisory stress tests to project post stress capital levels over a nine quarter planning horizon. Company run and supervisory stress tests evaluate whether a bank has the ability to maintain capital above minimum regulatory capital requirements\textsuperscript{2} over the planning horizon.

**B. Where the Hypothetical Meets Reality**

This process not only affects a bank’s capital plan; it also can affect borrower access to funding. The scenarios and the modeling assumptions in the Federal Reserve’s supervisory stress testing can impact the overall capital a bank may need to hold against certain asset classes. If an asset class is particularly hard hit by the scenarios or the supervisory model (energy, mining, or agricultural sectors, for example), more capital would need to be held against that asset class for a bank’s capital plan to be approved. Any higher capital requirements encourage banks to shift lending away from asset classes disfavored by the test and its scenarios, impacting credit availability for certain types of borrowers. Keep in mind that these are real world consequences based upon hypothetical regulatory predictions of the future, not based upon actual bank or borrower performance.

**C. Qualitative Judgments of Unknown Quality**

In addition to the quantitative assessment, the Federal Reserve has also exercised discretion to reject a bank’s capital plan based on qualitative factors.\textsuperscript{3} Although the consequences for a perceived qualitative deficiency are severe, the Federal Reserve has disclosed little information about its qualitative assessment approach. As administered, this has the look and feel of arbitrary action, with little protection against the risk of abuse.

**D. Transparency issues**

*Practices Inconsistent with the Administrative Procedure Act*

The CCAR stress testing program is opaque even though the stakes for banks and economy are high. Particularly concerning within the stress testing regime is the opaque nature of the supervisory model, the development of scenarios, and the standards of the qualitative review (applied to banks with more than $250 billion in assets). The administrative details of the program have never been exposed to the public for review and comment, and yet they have as

\textsuperscript{2} The CCAR exercise expressly does not evaluate banks under the Advanced Approaches capital standards.

\textsuperscript{3} In a rulemaking finalized on February 3, 2017, the Federal Reserve excluded banks holding between $50 billion and $250 billion in assets from the qualitative assessment.
much impact as any other rule administered by the Federal Reserve. The outlines of even basic bank examination guidance has had more public transparency.

The supervisory models and scenarios directly affect how much capital a bank needs to hold for particular assets, as much or more than do the Basel capital rules that were adopted following extensive public review and comment. The CCAR program as currently administered allows the Federal Reserve to pick and choose preferred assets and institutional models at its sole discretion, based on its opinion as to bank performance against hypothetical assumptions of future conditions.

The consequences extend beyond the bank to the customers of the bank and can affect the economy more generally. As to the borrower, banks will tend to shift lending away from sectors that are disfavored by the regulator’s supervisory model and scenario assumptions. This can affect credit availability in certain sectors, with meaningful impact on growth and job creation.

Development and administration of these regulatory constraints have been conducted outside of the public notice and comment process required by the Administrative Procedure Act (APA). It should be understood that in material degree the CCAR stress tests are the binding capital constraint for most large banks, overriding the regulatory capital standards that were developed in a transparent process and subject to notice and comment pursuant to the APA. Impacted banks, bank customers, bank investors, and the broader public have not had a chance to weigh in on the structure, standards, or processes involved with the CCAR. It is impossible to make the case that these would not benefit from adherence to the required APA processes.

**Impedes Sound Capital Management**

Inadequate transparency also creates high levels of management uncertainty, structural complexity, and impedes the capital allocation process. Banks must manage, price, and allocate capital without a fully informed view of key regulatory drivers and expectations. Efficient capital management is frustrated by unnecessary regulatory mystery. The regulatory riposte has been that if banks know what the scenarios are and how they will be administered, then the banks will “study for the test,” that is arrange their business in line with the expected stresses. Is that not, however, the purpose of bank supervision, to guide banks in their preparations for risks, rather than to surprise them with unforeseen regulatory expectations? Keeping banks in the dark threatens to convert stress testing into a game rather than an optimally effective safety and soundness tool.

**Qualitative Assessments Compound Uncertainty, Danger of Regulatory Arbitrariness**

The ill-defined qualitative assessment may be the least transparent element of stress tests, adding a major element of uncertainty for those banks to which the qualitative evaluation still applies. In discussing the qualitative assessment in a 2016 report, the Government Accountability Office found that the Federal Reserve, “has not disclosed information needed to fully understand its assessment approach or the reasons for decisions to object to a company’s capital plan. Transparency is a key feature of accountability and this limited disclosure may hinder
understanding of the CCAR program and limit public and market confidence in the program and the extent to which the Federal Reserve can be held accountable for its decisions.”

E. Blanket Bureaucratic Assumptions

A substantial weakness of the CCAR as administered is that it poorly captures expected and planned actions that would be taken by a bank in stress conditions. Run by bank supervisors, not by bankers, the CCAR has so far seriously neglected normal business reactions to financial and economic stress. In that important respect, the promise of dynamic adjustment inherent in the concept of stress testing is lost. Instead, regulators, taking on the role of bank manager, have relied upon blunt (and mistaken) assumptions of business response to stress, introducing significant distortions. These distortions have weighty consequences.

Banks have historically strived to achieve operational efficiencies through investment in technology, security, new services, and other measures to achieve a competitive advantage in order to reduce pricing and improve product offerings. The prevailing regulatory approach to stress testing, however, disregards either the usual and prudent steps a bank would take to respond to economic or financial stress, or the possibility of innovative but prudent responses. Indeed, some of the blunt regulatory assumptions expect actions that would be decidedly imprudent for a bank to take were the stress conditions to materialize in reality.

Capital Plan and Balance Sheet Assumptions

The capital plan rule requires companies to assume that capital actions planned in baseline conditions will be executed throughout the adverse and severely adverse supervisory scenarios. In effect the Federal Reserve assumes that large bank holding companies will not cut dividends in a stress period. However, this requirement does not reflect banks’ internal capital management policies. In reality, bank practices vary widely, not just from bank to bank but from situation to situation. The CCAR assumption, though, is Procrustean, allowing for no deviation. Moreover, the CCAR assumption requirement can be inconsistent with regulatory restrictions, such as the capital conservation buffer, that restricts capital distributions.

Similarly, in the 2014 CCAR cycle, the Federal Reserve replaced banks’ balance sheet projections with agency’s own model, which assumed that the supply of loans during the severely adverse scenario would not be restricted. This model has operated to project an increase in the balance sheets of the CCAR banks during the severely adverse scenario. This assumption of balance sheet growth is inconsistent with likely bank behavior, which would be to slow balance sheet growth or incur portfolio runoff in the face of declining capital levels. Moreover, even if a bank wanted to grow its balance sheets in stress conditions there may not be sufficient loan demand; some decline in demand by creditworthy borrowers for loans is inevitable in a serious recession. Recognizing this deficiency in the model, then Governor Daniel Tarullo discussed in a public speech the possibility of a “constant balance sheet” assumption. While a “constant balance sheet” assumption would be an improvement over the

---


current model which projects balance sheet growth, a “constant balance sheet” assumption still would still be a non-businesslike assumption, failing to capture likely bank behavior or any of its likely varieties.

**Tax Assumptions**

For purposes of CCAR stress tests, the Federal Reserve applies a simplified, unrealistic, uniform tax rate to projected pre-tax results for all banks when calculating net income or loss.\(^6\) Needless to say, all banks do not have the same tax rates. We believe that this assumption can have a material impact on after tax income and, accordingly, on the calculation of capital positions and the Federal Reserve’s assessment of and decision to object or not object to a bank’s capital plan. For example, a bank’s tax expense is not merely determined by applying a tax rate to pre-tax income or loss as it is assumed by the Federal Reserve under CCAR. There are tax expense components that are not a function of income, such as low income housing credits, new markets credits, and municipal security income. Many banks have significant investments that generate these tax benefits and so have lower tax rates. Other important fact patterns that can result in the simplifying tax assumption materially understating stress testing results on capital can include recoverable tax history, net deferred tax liability, threshold limitation capacity, and marginal tax rates.\(^7\)

**F. DFAST, Wrong for Midsize Banks**

The Dodd-Frank Act (DFA) imposes company run stress tests (DFAST) on all banks and bank holding companies with $10 billion or more in consolidated assets. This is a wide net that captures midsize banks, regional, and larger banks. By their nature, midsize banks and some regional banks have small geographic footprints compared to larger banks that have a more national presence. The DFAST statutory requirements are aimed at those larger banks, relying on national macroeconomic scenarios. The operational relevance of those national scenarios ranges from very limited to contradictory for institutions with local geographic footprints. In fact, DFAST requirements are so misapplied to midsize banks that neither regulators, bank managers, nor investors have much use for midsize bank stress testing results. Not only are the requirements imposed by the DFA not useful for midsize banks, they pull supervisory and management resources away from the evaluation of forward looking stress that are part of the normal integrated testing programs that are part of the supervisory CAMELS process.

In the final EGRPRA report\(^8\) issued on March 21, 2017, the OCC and FDIC call for legislation to exclude banks with between $10 billion and $50 billion in assets from DFAST. The Federal Reserve did not make any legislative recommendations in the EGRPRA report, though Federal Reserve policymakers have expressed similar views. For example, in letters to the leaders of Senate and House committees, former Governor Daniel Tarullo highlighted the stress testing requirements stating, “I am also sympathetic to the argument offered by some smaller regional

---

\(^6\) See Board of Governors of the Federal Reserve System; Dodd-Frank Act Stress Test 2016: Supervisory Stress Test Methodology and Results; page 16.


banks with between $10 and $50 billion in assets that they should be excluded from all stress testing requirements.”

G. The Bad Idea of Making the GSIB Surcharge Procyclical

In the opposite direction from recent refinements and improvements to the CCAR, there have been some suggestions of changes that would make this stress testing procyclical, reducing the ability of supervisors and bank managers to respond at the onset of actual financial and economic stresses with the resources that banks have at hand. Most troublesome in this regard is the possibility of including the heightened capital requirements for banks identified as globally systemically important banks (GSIB surcharge) into CCAR.

Although the details of such ideas are not clear, it is clear that its inclusion would be a departure from the current method of evaluating banks, which recognizes that the countercyclical purpose of buffers is to absorb economic stresses without eroding basic bank capital standards. When the economy turns south, our nation has traditionally looked to banks as economic shock absorbers, able to continue providing financial services longer than might other financial firms, positioned to work with borrowers and customers to make appropriate financial adjustments. That is the conceptual, countercyclical purpose of capital buffers, allowing banks to perform this traditional role unless and until financial or economic conditions force a retrenchment.

The GSIB surcharge is part of that buffer system, not part of the minimum capital requirement. Rather, it is an element of the capital conservation buffer that is “designed to absorb losses in stressful periods…” As the agencies have recognized, a bank “must be able to use some of its capital conservation buffer” without breaching minimum capital standards. Including part of the capital conservation buffer into the CCAR stress tests as part of a minimum capital standard rather than operate as a genuine buffer would compel banks to retrench much earlier in an economic downturn, reinforcing and exacerbating the downturn, contrary to the basic notion that the buffers should be used during times of stress to absorb adjustment costs before reaching minimum capital standards.

II. Recommendations

A. Transparency: End the Mystery

The principles of safety and soundness should not be mystery. Safety and soundness rules should be sufficiently consistent and transparent so as to encourage appropriate risk management practices, not surprise banks and the customers who rely on them and the investors who support them. The Federal Reserve should publish for notice and comment the design and assumptions of the supervisory model prior to the start of each CCAR cycle. Moreover, the Federal Reserve should publish for notice and comment the supervisory scenarios.

---

B. Arbitrariness: Remove the Qualitative Assessment

The Federal Reserve recently made a convincing case that the qualitative elements of stress testing add little to no value for banks with less than $250 billion in assets and ratified that change in regulation. The Federal Reserve failed to make a compelling case for applying qualitative elements in the stress tests of any banks. Qualitative issues are already addressed by supervisors as part of the normal, comprehensive bank examination process. Including qualitative elements in stress tests, with stress testing’s inherent challenges as a system based on predictions of the future, raises the unwelcome and unnecessary specter of arbitrary regulatory action. The Federal Reserve should remove the qualitative assessment from the CCAR for all banks.

C. Tailored Assumptions: Recognizing Banks as Businesses

1. Business Adjustments, Distributions, Asset Changes: The CCAR stress testing framework should recognize banks’ likely responsive behavior in the hypothetical scenarios, including the recognition that banks will react in a variety of manners consistent with their business models and with safe and sound operation of their firms. The Federal Reserve should remove the mandatory distribution assumptions, recognizing that actions to address investor concerns and interests can be conducted in ways to reinforce safe and sound operation of the bank, a key element of which can be preserving investor commitment to the bank. We also recommend that the Federal Reserve revisit unrealistic balance sheet assumptions and allow banks to make the case that their balance sheets will not automatically grow under stress conditions, indeed recognize the economic and business reality that some retrenchment may be reasonable as well as appropriate for safety and soundness reasons.

2. More Realistic, Tailored Tax Assumptions: We recommend that the stress test calculations use base case tax calculations as a starting point as these calculations are prepared in accordance with Generally Accepted Accounting Principles (GAAP). Starting with this base, the Federal Reserve can then calculate the tax effects of changes in pre-tax income generated in the Federal Reserve independent calculations and apply those effects to the existing base tax information. We believe this would result in a better approximation than using a flat uniform rate.

D. End DFAST for Midsize Banks

Neither regulators nor the industry support applying the DFAST to midsize banks. The DFAST requirements should be removed for midsize banks. We understand that complete removal of DFAST application to midsize banks may require legislation, a change that we support. Until such legislation can be enacted, we encourage regulators to remove burdens and costs of DFAST to midsize banks to the extent that they believe allowable under statute, recognizing that that statute extend significant flexibility to regulators in the design and application of the DFAST. For example, we believe that the statute does not require a bank-by-bank public reporting of
DFAST results, information of little value to regulators, banks, or investors; instead, we recommend that the public reporting requirement be satisfied by an aggregate report of results for the midsize bank segment.

E. The Countercyclical GSIB Surcharge Should Not Be Made Procyclical under the CCAR

We call upon policymakers to reaffirm the understanding that the GSIB surcharge is a buffer designed for countercyclical purposes and abjure recommendations to convert the surcharge via stress testing into a harmful procyclical requirement.