

STRESS TESTING: WHAT'S INSIDE THE BLACK BOX?

HEARING BEFORE THE SUBCOMMITTEE ON FINANCIAL INSTITUTIONS AND MONETARY POLICY OF THE COMMITTEE ON FINANCIAL SERVICES U.S. HOUSE OF REPRESENTATIVES ONE HUNDRED EIGHTEENTH CONGRESS SECOND SESSION

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Wednesday, June 26, 2024

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STRESS TESTING: WHAT'S INSIDE THE BLACK BOX?

Wednesday, June 26, 2024

U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON FINANCIAL INSTITUTIONS
AND MONETARY POLICY,
COMMITTEE ON FINANCIAL SERVICES,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:04 p.m., in room 2128, Rayburn House Office Building, Hon. Andy Barr [chairman of the subcommittee] presiding.

Present: Representatives Barr, Posey, Luetkemeyer, Williams of Texas, Loudermilk, Rose, Fitzgerald, Kim, De La Cruz, Foster, Sherman, Scott, Green, Beatty, Vargas, Casten, and Pressley.

Chairman BARR. The committee will now come to order.

Without objection, the chair is authorized to declare a recess of the committee at any time.

This hearing is titled, "Stress Testing: What's Inside the Black Box?"

Without objection, all members will have 5 legislative days within which to submit extraneous materials to the chair for inclusion in the record.

I now recognize myself for 5 minutes to give an opening statement.

HON. ANDY BARR, CHAIRMAN OF THE SUBCOMMITTEE ON FINANCIAL INSTITUTIONS AND MONETARY POLICY, A U.S. REPRESENTATIVE FROM KENTUCKY

When done right, stress testing can be beneficial to banks, consumers, and the financial system. Stress tests demonstrate to everyone that the U.S.' largest banks are well capitalized, resilient, and capable of functioning and lending throughout the economic cycle but for all these benefits to flow from stress tests, the tests must be credible, with transparency and accountability.

Instead of running stress tests in an open and accountable manner subject to public scrutiny, the Federal Reserve cloaks the stress test under a veil of secrecy. This is no legal basis for the secrecy, and the perceived benefits of secrecy are illusory at best.

No one disputes that the stress tests are used in binding capital requirements, including the stress capital buffer, and can be used to restrict banks from paying dividends. The stress tests, including the scenarios and models, must be subject to the notice and comment rulemaking process.

I am certain that we will hear from our colleagues on the other side of the aisle that key aspects of stress tests must remain secret and not subject to public comment. We will probably hear that banks will simply, “game the tests,” and that there is not enough time to take public comment on stress test scenarios.

Even if these arguments were legally tenable, which they are not, they still do not carry water. As we will hear from our witnesses, it is not clear that the banks could easily game the stress test, even if they wanted to and the Fed already has plenty of traditional supervisory tools to address gaming. More importantly, if disclosing models resulted in better stress performance without improved risk profiles, this suggests there are material weaknesses in the models themselves rather than a problem with public disclosure.

It is critical that the Fed gets stress testing right and with growing politicization of the Federal banking agencies, it is possible that rogue officials pursuing political agendas could also game the tests by manipulating models and assumptions to obtain desired results for heightened capital requirements or reduce dividends.

The stress tests have real world impacts: Banks make capital allocations based on how they think they will perform on stress tests. This means that banks are making decisions about how to lend based in part on how they think the Fed’s models will work, and that has massive ramifications for the real economy. Because banks are only making guesses, they must be more conservative with how they allocate their capital to ensure that they can easily pass the stress tests, regardless of the underlying models and assumptions used. Again, this has real-world impact on the families, farmers and small businesses who rely on banks to access credit.

Moreover, the stress tests impacts how much dividends banks can pay. It is important that banks can return their profits to shareholders as otherwise investors will not choose to invest in banks in the future.

This hearing builds on the work that our committee has been doing in this Congress to improve the stress testing regime. This committee recently reported out my bill, the Bank Resilience and Regulatory Improvement Act, which would require that the Fed disclose the underlying models and assumptions used in the stress tests, and require that the Fed take public comment on each year’s stress testing scenarios.

Of course, there is nothing keeping the Fed from fixing these problems on their own, but due to their continued unwillingness to do so, I applaud my colleagues for advancing this important piece of legislation.

One final note, we have to also recognize and remember that stress testing and the way in which stress tests are conducted interface with the existing regulatory regimes that are out there. As the banking agencies are reviewing the proposal on Basel III Endgame, we must keep in mind how that can work cumulatively with any changes to stress tests, also the long-term debt rule. These requirements can pile up and the way in which they work and are interchangeable is very, very important, and so there is interplay among these regulatory and administrative decisions.

So I look forward to our witnesses and their testimony and shedding at least a glimmer of light on these opaque processes.

With that, I now recognize the ranking member of the Subcommittee on Financial Institutions and Monetary Policy, the gentleman from Illinois, Dr. Foster, for 4 minutes for an opening statement.

HON. BILL FOSTER, RANKING MEMBER OF THE SUBCOMMITTEE ON FINANCIAL INSTITUTIONS AND MONETARY POLICY, A U.S. REPRESENTATIVE FROM ILLINOIS

Mr. FOSTER. Thank you, Chairman Barr.

Thank you to our witnesses for joining us, particularly those of you who spent part of your life just trying to understand what befell our economy in 2008 and how to keep it from happening again.

In 2008 during the crisis, large U.S. banks faced a crisis of confidence and its economic conditions continued to deteriorate, and the question came up just how much worse things could get. The outlook was dim at best, and action was needed to assure investors and the public that U.S. banks were capable of withstanding continued negative conditions in our economy.

In 2009, regulators conducted simultaneous stress tests of the 19 large U.S. banks to project their ability to continue should leading economic indicators continue to go downhill. By publishing the results of the stress tests and requiring banks to correct capital deficiencies, these stress tests were a big part of what restored confidence in large U.S. banks that they would be able to continue serving Americans if the crisis were to continue to worsen.

This process is viewed as, almost universally, as a success. Led to the creation of the permanent stress testing regime that we now know today, with Congress requiring regular internal and supervisory stress testing of large banks as part of the Dodd-Frank Act, but as stress testing has evolved, industry participants have petitioned for greater transparency and predictability of stress tests from regulators, which has its pros and cons, which I hope we are going to have a thoughtful discussion of this in this hearing.

Under the last administration, the Federal Reserve began publishing significantly more details regarding the design of stress test models and their methodology, including projected loss rates for certain types of loans. Despite the added transparency, industry participants and others would continue to advocate for closer to total transparency of stress test scenarios and models, both afterwards and even prior to the stress tests.

So academics and former Federal Reserve officials rightly cautioned against this approach of total transparency, raising concerns that too much transparency and stress testing would allow financial institutions to game the stress test in various ways.

When I first heard about the concept of stress test back in 2009, I thought that was a good idea and was impressed at how it worked, but I was also warned at the time that it is not a panacea. History gives us examples of the weaknesses of fully transparent stress tests. One relevant to this discussion is, in 2002, the Office of Financial Housing Enterprise Oversight administered what they called stress tests to Fannie Mae and Freddie Mac, which they

passed and which were not really viewed as a success in terms of diagnosing real problems they had.

The agency did disclose all the comprehensive details about their stress testing model, including the scenarios, empirical specifications, and parameter estimates for public notice and comment. I do not think anyone or very few people appreciated not only the fragility of asset valuations there but the correlations in those asset valuations. No one could anticipate, for example, that you would have a nationwide drop in housing prices and it was not reflected in the risks that the market priced into various complex financial devices that were put as a layer on top of housing finance.

So complete transparency and limitations on the agency's ability to update the model to reflect the changing economic conditions reduced the efficiencies of those tests, and we have to avoid that mistake here. In retrospect, the academic community has noted that these factors provide a very poor window into enterprises' true risk exposures.

Like I said, I hope for a really thoughtful discussion of the pros and cons of different kinds of transparency here.

I yield back.

Chairman BARR. The gentleman yields back. Thank you.

Today we welcome the testimony of Sean Campbell. Mr. Campbell is the chief economist and head of policy research at the Financial Services Forum.

Francisco Covas. Mr. Covas is executive vice president and head of research at the Bank Policy Institute.

Jonathan Gould. Mr. Gould is a partner at the Jones Day law firm.

Greg Feldberg. Mr. Feldberg is a research director and research scholar and lecturer at Yale University.

We thank each of you for taking time to be here today. Each of you will be recognized for 5 minutes to give an oral presentation of your testimony.

Without objection, each of your written statements will be made part of the record.

Mr. Campbell, you are now recognized for 5 minutes to give your oral remarks.

**STATEMENTS OF SEAN CAMPBELL, CHIEF ECONOMIST &
HEAD OF POLICY RESEARCH, FINANCIAL SERVICES FORUM**

Mr. CAMPBELL. Chairman Barr, Ranking Member Foster, and members of the subcommittee, my name is Sean Campbell, and I am the chief economist at the Financial Services Forum, which represents the eight globally systemically important banks, or GSIBs, headquartered in the United States. I am a Ph.D. economist with nearly 14 years of experience at the Federal Reserve, where I was deeply involved in regulatory policies and stress testing development critical to the stability of the U.S. financial system, particularly following the 2008 financial crisis. The Forum appreciates the opportunity to testify today.

Over the last 15 years, U.S. GSIBs have demonstrated their strength and resilience through rigorous and dynamic annual stress tests, holding significantly more capital compared to stress losses even under severe economic scenarios. Additionally, U.S.

GSIBs demonstrated their strength during recent real-life stress tests, supporting the economy during the coronavirus disease 2019 (COVID-19) pandemic and fostering financial stability during recent regional bank failures.

An open and transparent regulatory process is a longstanding and well-accepted principle of good governance that provides the public with important information while also helping to ensure the public accountability of regulators. The stress testing framework, however, lacks transparency compared to other regulatory measures, like the risk-based capital requirements that are currently undergoing a public and transparent notice and comment process.

Stress test opacity limits public understanding and hinders the broader discussion necessary to improve the stress testing process and mitigate any negative side effects for the broader economy.

Transparency is essential to promoting an effective and efficient banking system. Importantly, available research indicates that stress tests have clear impacts on credit allocation in the U.S. economy and, in some instances, can lead to reduced lending in areas, such as small business and healthcare.

As is the case for all other risk-based capital requirements, banks need to understand the regulatory rules to which they are subject to make informed decisions. Stress testing opacity forces banks to make decisions based on incomplete data and information that hinders banks core function of stewarding financial resources to their most productive and efficient use.

Greater transparency and stress testing would improve bank risk management and capital planning, while allowing for more informed assessments by people across the economy of its impact on credit availability and facilitating greater economic growth.

To be sure, the Federal Reserve does provide some limited disclosures to the public. The provided disclosures, however, are generally broad and high level, without providing the type of pertinent information that would admit a serious and critical assessment of the stress tests. As an example, in describing its model for net income, the Federal Reserve discloses that—and here I am quoting from the Federal Reserve’s public website—the specific macroeconomic variables that enter each regression model differ across equations and are chosen based on statistical predictive power and economic theory.

To analogize, this is a bit like asking your grandmother for her secret chocolate cake recipe and being told, oh, dear, it is so simple, just mix some flour, eggs, butter, and other flavorings together and there you have it.

Stress testing is the only major prudential requirement that does not provide the public with an open and transparent process. This lack of transparency is largely a vestige of the rapid approach that was taken to executing the initial round of stress tests in the midst of the financial crisis. Then, you need to quickly assure the public of bank strength and financial stability arguably outweighed the need for transparency. Fifteen years on, there is no compelling public policy rationale to maintain a largely opaque approach to stress testing.

Today’s approach should be broadly consistent with the public notice and comment standards applied to the rest of the bank regu-

latory framework, which includes Basel III, the GSIB capital surcharge, and liquidity standards. Critically important is the fact that the results of the stress tests now feed into the annual stress capital buffers for each firm, functioning as a de facto regulatory requirement by directly augmenting required capital amounts and, in turn, the allocation of capital to individuals, companies, and important sectors of the economy.

In conclusion, greater transparency in stress testing is essential to achieving a more effective, efficient, and resilient financial system. Remedies that should be part of a broader public policy discussion should include, one, more formal engagement with the public on setting hypothetical scenarios so regulators can gain insight to salient risks from a diverse set of viewpoints; two, requiring that stress test models be subject to the usual notice and comment process that applies broadly to other prudential requirements; and three, requiring that the stress testing process be subject to a rigorous external audit that would make its findings known to the board and to the public to instill further confidence in the validity and robustness of the stress testing regime.

Overall, aligning stress tests with the public process afforded other bank regulatory standards would help improve public trust, promote economic stability, and ensure that banks can support the economy to their fullest potential.

Thank you, and I appreciate your questions.

[The prepared statement of Mr. Campbell follows:]



**Written Statement of Dr. Sean Campbell, Chief Economist, Financial Services Forum
Subcommittee on Financial Institutions and Monetary Policy
June 26, 2024**

1. Introduction

Chairman Barr, Ranking Member Foster, and members of the Subcommittee, thank you for the opportunity to testify today. My name is Sean Campbell. I am the Chief Economist at the Financial Services Forum (Forum). I am a Ph.D. economist and I have been a full-time academic as well as a member of the Federal Reserve staff. I am also an adjunct lecturer at Johns Hopkins University. I was a Federal Reserve staff member from 2004 until 2018. During that time, I served as a staff economist in the Division of Research and Statistics and a member of the official staff in the Divisions of Research and Statistics and Banking and Supervision. I worked extensively on the Federal Reserve's stress testing program, serving as a member of the Federal Reserve's model oversight group (MOG). The MOG was charged with overseeing the Board's stress testing program, including reviewing and providing staff-level approval of the exercise's results and overseeing and providing staff-level approval of any changes to the quantitative models used in the stress testing program. In addition, during my time at the Federal Reserve, I worked on a range of bank capital and prudential policies, many of which occurred in response to the Financial Crisis of 2008.

The Forum represents the eight global systemically important banks (GSIBs) headquartered in the United States. Forum members play an essential role in the U.S. economy, lending to consumers and companies, providing underwriting and other services within the capital markets, and managing and safeguarding the assets of individuals and institutions. Forum institutions hold over 40 percent of U.S. banking assets, underwrite over 75 percent of corporate and municipal debt and equity offerings, provide millions of individuals and families with essential banking services, are innovators in advancing new banking technologies, and employ over 700,000 people across the country. U.S. GSIBs also play a vital role in advancing the economic competitiveness of American business and the U.S. economy. Globally active companies, from the largest to mid-size to small businesses, rely on the largest banks to finance their operations, grow through trade, and offset the risk of losses that could occur due to fluctuations in currencies, interest rates, commodity prices, and other factors.

As the largest banks, Forum members meet the most stringent set of bank regulatory requirements and undergo the most rigorous supervision from the federal banking agencies. Collectively, the U.S. GSIBs maintain over \$900 billion in Common Equity Tier 1 Capital, triple the level in 2009. The firms maintain more than \$3 trillion in highly liquid assets, nearly triple the level immediately after the financial crisis. GSIBs meet a long list of other significant requirements put in place after the crisis, designed to result in strong and resilient institutions. The firms are annually measured for their ability to weather very severe economic conditions through stress tests administered by the Federal Reserve. Because of their strength, they have passed these tests – which assume no emergency government support – without difficulty. Over the past decade, stress tests have produced average hypothetical total GSIB losses of \$132 billion compared to an average aggregate Tier 1 capital level of \$915 billion, a clear example of the capital strength of the firms.

In recent years, the firms have not only satisfied hypothetical stress tests, but they have also been a strong source of support during real economic stress events. During the COVID-19 pandemic, Forum institutions acted quickly to conserve capital – by voluntarily suspending capital distributions – in anticipation of the needs of individual and business customers as major parts of the U.S. economy came to a halt. The GSIBs activated lines of credit, conducted record-setting levels of underwriting to support companies that fund themselves in the capital markets, and made accommodations for individuals and families who lost income suddenly and indefinitely. The GSIBs were leaders in delivering billions in federal income support payments, and billions in special small business loans as part of the Paycheck Protection Program. In the spring of 2023, as a few regional banks failed, the GSIBs remained demonstrably strong by consistently supporting their existing customers, accepting deposits from new customers, and providing billions in deposits to First Republic Bank. The strength and resilience of the largest banks has been repeatedly cited by former and current government officials responsible for financial policy and bank regulation, including the current Treasury Secretary, members of the Federal Reserve Board of Governors, the acting Comptroller of the Currency, and the chairman of the FDIC. As stated by the Federal Reserve when it announced the results of the 2023 stress tests, “Large banks are well positioned to weather a severe recession and continue to lend to households and businesses even during a severe recession.”

2. Executive Summary

The importance of today's hearing demands a full and detailed assessment of transparency in the stress testing regime as well as the implications of a lack of transparency on government regulation and administration, as well as its effects on the economy. The remainder of my testimony considers these issues in detail, but I also provide a brief overview of my key findings here.

The stress testing regime is characterized by a high degree of variation in the amount of transparency provided to the public. Some aspects of the regime, such as the bank data collection as well as the scenarios that inform the exercise exhibit a significant degree of transparency. The quantitative models that determine how the data and scenarios are translated to losses and stressed capital ratios exhibit the lowest degree of transparency and are largely opaque to all but Federal Reserve system staff. While the Federal Reserve has published some limited information on these models in the past few years, the provided disclosures amount to form over substance. The provided disclosures result in a patina of transparency that, in practice, conveys little information that is useful for evaluating the validity of the models or their impacts. The resulting transparency patchwork can largely be traced to the beginnings of the stress testing regime in the Supervisory Capital Assessment Program (SCAP) that was conducted by regulators during the Financial Crisis. The approach to transparency in the current stress testing regime is largely the same as that found in the initial SCAP. While it is surely the case that a regulatory initiative that was hastily designed in the midst of a crisis was far from optimal, the last fifteen or so years have witnessed only minor, cosmetic, changes to the approach to transparency in today's stress testing regime.

Transparency in the stress testing regime is critical because open and transparent regulation is a cornerstone of long-established good governance standards. Indeed, certain laws such as the Administrative Procedures Act and the Government in the Sunshine Act demand a high degree of transparency from the government to ensure that government regulation benefits from a diverse set of views and feedback, appropriately limit the exercise of government authority, and to ensure public accountability. These goals are just as worthy in the context of the stress tests as they are in any other arena of banking or government regulation.

Relatedly, the lack of transparency in the stress tests does not comport with the degree of transparency afforded to the public in the context of related bank capital initiatives such as the GSIB capital surcharge or risk-weighted asset measurements – both of which have recently been subjected to public notice and comment following public proposals to modify these rules.¹ The lack of transparency in the stress testing regime is incongruous with the rest of the large bank capital regime and creates a clear and troubling disconnect in the government's approach to transparency in bank capital regulation.

Transparency in bank capital regulation, in general, and the stress tests, in particular, is important because bank capital and stress testing requirements impact credit allocation in the economy. As an example, using limited public disclosures, researchers have found strong evidence that the stress tests have limited funding for small business loans and certain healthcare-related industries. In the context of the non-stress testing components of the capital framework, the public is afforded the opportunity to comment on these impacts and regulators are required to consider these comments in crafting final rules. The public has no such opportunity in the case of the stress tests and the Federal Reserve is not obligated to consider any of the impacts that have been identified in the research. Allowing one branch of the capital framework to be wholly immune to the public's views on the economic impacts of credit allocation creates troubling conditions that only invites the inappropriate and unchecked exercise of government authority.

A lack of transparency in the stress testing framework is further problematic because it frustrates banks' ability to practice prudent risk management. Capital requirements, of which the stress tests are a part, serve to provide a signal about the relative riskiness of different bank assets. Prudent risk management demands that banks be aware of these relative risk levels and that they use this information as they conduct their own risk management and capital planning. Opacity in the stress testing regime denies banks critical information that is required for sound decision making. Moreover, banks are not denied specific, granular information as it relates to any other aspect of the bank capital regime. Whether it be specific risk-weight rules, or the specific rules governing the GSIB capital surcharge, banks have a full window into the

¹ On July 27, 2023 the banking agencies released a proposal to modify the schedule of risk-weights through the proposal commonly referred to as "Basel 3 Endgame" or "B3E" and the Federal Reserve issued a proposal to modify the GSIB Capital Surcharge.

specification and calibration of these rules and use that information to inform their risk management and capital management decision. Indeed, regulators fully expect that banks will make use of such information and have either called upon banks to do so or have applauded their efforts in this regard.

Finally, opacity in the stress testing regime creates unhelpful and unnecessary regulatory uncertainty. Because banks do not fully understand or know the capital rules to which they are subject, they may respond either by pulling back in general from economic activity as that is a clear and natural response to heightened uncertainty, or they may make incomplete and inefficient adjustments based on limited data that are unproductive and unduly costly.

The present lack of transparency in the bank stress testing regime represents a clear public policy failure that must be rectified in the near term. The “original sin” of the SCAP should not be allowed to be re-branded as the “immaculate conception” of stress testing. In my concluding remarks, I provide a discussion of possible remedies that should be considered as part of a broader, public, and transparent policy discussion. Options for improving the stress testing regime would include changes that would bring the stress tests closer in line with the rest of the regulatory capital framework which is subject to the standard notice and comment process, as well as improved engagement with the public in regards to the annual stress scenario and an independent audit of the entire stress testing infrastructure that would provide both the Federal Reserve Board and the public with greater confidence in the validity of the stress testing regime.

3. Stress Testing Stringency and GSIB Capital Adequacy

Over the last decade, the Federal Reserve’s annual stress test scenarios have been more severe than the 2008 financial crisis, and importantly, the nation’s largest banks have demonstrated they have ample capital to absorb losses, many times more in fact, and continue to lend into and support the economy during a severe economic scenario.

Since the introduction of the Supervisory Capital Assessment Program, or SCAP, in 2009, the Federal Reserve has been using a battery of undisclosed, quantitative models to make quantitatively specific statements about the capital adequacy of our nation’s largest banks. As will be discussed in the remainder of this testimony, while the stress tests are characterized by a

significant lack of transparency, there is somewhat more transparency regarding the economic scenarios that serve as a key input into the stress tests.

A review of the macroeconomic scenarios that drive the severity of the stress tests show a consistent degree of variability or “dynamism” from year to year. More specifically, using data on the severely adverse macroeconomic scenario over the past decade shows a consistent level of variability in key scenario variables such as U.S. Real GDP, the unemployment rate, house prices, stock market volatility, and corporate bond yields has been roughly unchanged over this period (see Appendix Figure A1). As compared to the 2009 SCAP, for example, the severity of the shock to Real GDP, the unemployment rate and house prices are all more severe in the 2023 severely adverse scenario than they were in the SCAP (See Appendix Table A1). As a result, while the lack of transparency in the scenario design process prohibits a full and clear understanding of why the Federal Reserve chooses any particular scenario from one year to the next, the available data clearly shows that the scenarios are as volatile and dynamic today as they have been in the past.

Against this backdrop, it is useful to consider the performance of U.S. GSIBs in the annual stress tests. Due to important changes in the administration of the stress tests, banks no longer “pass” or “fail” the annual stress test exercise. Broadly speaking, however, it is clear that the individual and aggregate performance of U.S. GSIBs in the stress tests has improved over time. In the past several years, U.S. GSIBs have exhibited stressed capital ratios that are often more than twice the required minimum. Indeed, the Federal Reserve has recognized the strong capital adequacy of our nation’s largest banks. As an example, last year the Federal Reserve [commented](#) that the 2023 results “demonstrate[d] that large banks are well positioned to weather a severe recession and continue to lend to households and businesses during a severe recession.” In addition, the Federal Reserve’s Vice Chair for Supervision stated that “today’s results confirm that the banking system remains strong and resilient.”

Some interpret the resilience of our nation’s largest banks as demonstrated by the annual stress tests as a sign of weakness or reduced “dynamism” of the stress tests. This conclusion does not comport with the facts. The capital levels and capital adequacy of large banks, in general, and U.S. GSIBs, in particular, have increased substantially over the time that the annual stress tests have been conducted. In the original SCAP exercise, U.S. GSIBs maintained an average initial common equity capital ratio of 6.9 percent. In the 2023 exercise, U.S. GSIBs maintained an average initial common equity ratio of 12.9 percent. As the initial level of capital rises, it becomes

increasingly likely that any given stress test will result in a higher post-stress capital ratio thereby demonstrating greater capital adequacy. This result is not an indication of a less dynamic or stale stress test but simply a result of standard bank capital arithmetic: beginning with more capital, *ceteris paribus*, means ending with more capital. In addition, Forum member balance sheets have undergone significant change over the past fifteen years. As just one example, the nearly eight-fold increase in the size of the Federal Reserve's balance sheet since 2008, coupled with new and significant liquidity requirements, has dramatically increased the amount of low-risk assets held by banks.²

Taken as a whole, the available data that is available on the severity of the Federal Reserve's stress tests coupled with available data on U.S. GSIB capital levels paints a clear picture. The stress tests remain a stringent test of capital adequacy and Forum members have improved their performance in the annual stress tests due to a significant increase in capital levels.

4. Transparency in the Stress Testing Framework

a. Scenario Articulation and Design

The Federal Reserve's Stress Testing Framework is complex, consisting of several inter-related parts. The degree of transparency associated with each part of the stress testing framework is different and should be considered appropriately. In particular, the degree of transparency provided to the public is comparatively greater in some aspects of the stress tests than others. Understanding the variation in transparency throughout the stress testing regime is helpful in assessing the appropriate amount of overall transparency that should be required of the stress testing framework.

The stress tests begin with the articulation of three scenarios – a baseline macroeconomic scenario, a severely adverse macroeconomic scenario, and a severely adverse global market shock scenario that is important for banks with significant trading activities. These scenarios represent one of three key inputs that determine the outcome of each year's exercise.

The output of the macroeconomic scenarios (baseline and severely adverse) is largely though not entirely transparent. Specifically, the Federal Reserve publishes the quarterly value of 28

² On December 26, 2007, the Federal Reserve's total assets were \$890.6 billion. As of June 12, 2024, the Federal Reserve's total assets stand at \$7.3 trillion, representing an 8.2 fold increase. Beginning in 2014, large banks became subject to the liquidity coverage ratio (LCR). [Research](#) has shown that the LCR has led to an increase in low-risk assets on bank balance sheets, especially U.S. GSIBs.

different macroeconomic and financial variables such as Real GDP, house prices, and the level of the stock market (16 domestic variables and 12 international variables) over the horizon of the stress test (13 quarters). In addition to these variables, however, the Federal Reserve's scenario discourse also includes a discussion of "Additional Key Features of the Severely Adverse Scenario". This discussion is qualitative and provides a rough sense of how some additional variables will be calibrated but the discussion does not provide the same degree of transparency that is provided in the case of the other 28 macroeconomic variables. As an example, the 2024 scenario discussion provides that "declines in aggregate U.S. house prices should be assumed to be concentrated in regions that have experienced rapid price gains over the past few years." This broad statement raises more questions than it answers. What is meant by rapid? How many years? How much will house price declines vary across different regions with different historical price patterns? To the extent that the macroeconomic scenario includes a finer-grained set of variables than the 28 macroeconomic variables that are publicly disclosed, it is not clear why other variables – such as regional or MSA level house prices – cannot be similarly disclosed. It is also entirely unclear what public policy goal is served by being explicit with respect to some macroeconomic variables and vague with respect to others.

In contrast to the macroeconomic scenarios, the global market shock is comprised of a large number – as in several thousand – shocks to risk factors that impact the value of capital market instruments and private equity holdings. These severely adverse shocks are disclosed to the public in their entirety. The disclosed variables are articulated at an extremely high degree of granularity and specificity. As an example, in 2023 the Federal Reserve disclosed the assumed severely adverse global market shock using a spreadsheet with 20 distinct spreadsheet tabs with each tab containing as many as 1,300 specific shocks.³ Examples of specific shocks that were included in the 2023 global market shock include shocks to: Malaysian equities, Bulgarian sovereign debt, and the exchange rate between the Bangladeshi Taka and the Norwegian Kroner. Given the degree of granularity provided in the global market shock, it is difficult to understand the rationale for limiting the disclosure of important macroeconomic variables, such as regional house and commercial real estate prices, that have an important influence on the overall shape of the scenario and the results of the stress test.

³ These data are available at, <https://www.federalreserve.gov/supervisionreg/dfa-stress-tests-2023.htm>

While the output of the stress scenario process is somewhat transparent, the process of formulating each year's scenario is not transparent. The main source of information on the scenario design process is the Federal Reserve's scenario design framework. The scenario design framework provides a broad and general discussion of the factors that influence how the scenario is specified but, by design, does not provide a specific and detailed discussion of how and why the scenario is calibrated in each specific year. The scenario design framework does govern the quantitative specification of a few variables. As an example, the scenario design framework requires that the unemployment rate generally increases to a maximum of at least 10 percent from its current level. Other variables, however, are only discussed qualitatively without any rigorous or specific guidance or limitations on their values. Consider the following discussion from the scenario design [framework](#),

“[t]he Board will specify the paths of most other macroeconomic variables based on the paths of unemployment, income, house prices, and activity. Some of these other variables, however, have taken wildly divergent paths in previous recessions (e.g., foreign GDP), requiring the Board to use its informed judgment in selecting appropriate paths for these variables. In general, the path for these other variables will be based on their underlying structure at the time that the scenario is designed (e.g., economic or financial-system vulnerabilities in other countries).”

The discussion above makes clear that while the scenario design framework does provide some broad and high-level guidance on the articulation of scenarios, it does not meaningfully limit or guide the selection of scenarios in any way that would give the public a detailed understanding of how or why certain scenarios are chosen from year to year.

Finally, while the Federal Reserve does publish a document detailing the scenarios that provides some broad ex-post rationalization for the choices made, the scenarios are not subject to the usual notice and comment process. As a result, the Federal Reserve is not required to explain to the public, ex ante, the rational and key risk considerations underpinning the stress scenario. Moreover, the Federal Reserve is not required to consider or reconcile their chosen scenario with the risk assessments of members of the public, which would include, for example, risk management experts, banking sector analysts, or professional economic forecasters. In this regard, it is worth noting that in discussing the baseline scenario, the Federal Reserve often compares its baseline with published forecasts such as the Blue Chip Economic Indicators or the IMF's World Economic Outlook, but no such comparison or discussion is generally provided in the

case of the severely adverse scenario.⁴ The incongruity between the discussion and explanation of the baseline and severely adverse scenarios is important because the severely adverse scenario is the primary determinant of banks' performance on the stress test and its eventual stress capital buffer. Accordingly, a lack of any significant public engagement with regard to the adverse scenario makes it difficult for the public to clearly understand the thought process underlying the scenarios while also depriving the process of additional insights on key risks that should be considered as part of the scenario design process.

b. Bank-Specific Data Collection

Banks subject to stress tests are required to furnish a large volume of data to the Federal Reserve for use in the Federal Reserve's quantitative loss modeling exercise. The Federal Reserve requires that banks subject to the stress tests submit detailed and specific data on their exposures to loans, securities, derivatives, and an array of additional exposures through the Y-14 data submission process.

The Federal Reserve requires Y-14 data reporting at three frequencies – monthly, quarterly, and annual. The reporting forms and data requirements are substantial. As an example, the current reporting instructions for the quarterly report (FR Y-14Q) is in excess of 300 pages. The specific bank-level data that is provided as part of the Y-14 process is not made public because of its highly specific and confidential nature. In particular, the data includes client specific information on the size of loan amounts and the identification of borrowers that would raise clear privacy concerns. The specific variables, including their precise definition, that are required to be reported, however, are available to the public. In particular, the actual report forms as well as the reporting instructions themselves are publicly available.⁵ Accordingly, members of the public, academics, bank analysts and other parties can fully understand what data is being collected as part of the stress testing process. This is an important source of transparency as it affords the public an ability to understand whether key attributes or variables that are relevant to a particular asset class or risk are being measured with sufficient precision to support a risk-based assessment of potential losses in a stress scenario. As an example, if the public is concerned about

⁴ See for example, the discussion of the baseline and severely adverse scenario in the 2024 scenario disclosure [document](#).

⁵ The Federal Reserve maintains a website for the Y-14 reporting forms that contains: the current reporting forms, the current instructions, and prior versions of the report form and instructions. See for example, https://www.federalreserve.gov/apps/reportingforms/Report/Index/FR_Y-14Q.

developments in a particular sector, such as commercial real estate, existing disclosures make it possible for the public to assess whether the stress tests have regular and consistent access to the data that would be required to probe the crystallization of certain risk in that market.

The Y-14 report forms are all subject to the notice and comment process. Indeed, on June 21st of this year, the Federal Reserve issued for comment a [proposal](#) that would amend and modify the current Y-14 reporting forms. This notice and comment process is an appropriate transparency standard as it gives affected parties and the wider public an opportunity to evaluate proposed changes to the report forms. In addition to the Y-14 process, the Federal Reserve uses data from other regulatory filings such as the Y-9C, which are also subject to regular notice and comment, as well as additional publicly available data, data from certain vendors, and data from occasional “special collections” from the affected firms to inform the execution of the stress tests.

c. Quantitative Stress Test Models

The information from the scenarios and the bank-specific data that is collected as part of the Y-14 process is fed into a large suite of quantitative models that determine specific losses for each bank that is included in the stress testing exercise. As an example, a bank’s Y-14 data on its commercial and industrial (C&I) loans are fed into the Federal Reserve’s quantitative loss models along with the information in that year’s stress scenario to produce that year’s loan losses on C&I loans. These loan losses are then included with losses on every other asset class that is modeled by the Federal Reserve as well as projected net income that is generated by the Federal Reserve’s pre-provision net revenue (PPNR) model. Finally, the projected income and losses are combined with each firm’s proposed capital actions (dividends and buybacks) to compute projected capital levels over the stress scenario period.⁶ Ultimately, the calculation also serves as the basis for each year’s stress capital buffer (SCB) calculation.

There is less transparency regarding the specification of the Federal Reserve’s internal loss models than any other aspect of the stress testing process. Each loss model (and the PPNR model) is developed in-house by a group of economists from the Federal Reserve system. The documentation and exact specifications of the models are reviewed and assessed by Federal Reserve system staff but are not made available to the public.

⁶ This description is purposefully general and does not describe all of the specifics relating to the stress test calculation including, for example, the treatment of deferred tax assets, paxes and so on.

The quantitative models underpinning the stress test exercise are also not subject to the usual notice and comment process. As a result, the public is unable to comment on the precise specification of the models or how they relate to the underlying scenario variables. Moreover, Federal Reserve staff are unable to speak openly and transparently with a wide range of outside experts on the precise and specific nature of their models and how they might be improved to better assess risk in the banking system. Further, the Federal Reserve is not required to explain or otherwise substantiate specific modeling choices that have been made in their models. In the case of quantitative loss modeling, it goes without saying that the input assumptions have a critical impact on the results. Certain assumptions could have significant implications for generating differential results across banks but are not subject to review and comment from the public. In addition, the empirical practice of quantitative loss modeling is far from settled science. Rather, such efforts are better characterized as an art that is informed by data and historical experience. As a result, the scope for such models to benefit from public transparency and the input of a wide range of informed stakeholders is large.

While the degree of transparency that is provided concerning the Federal Reserve's quantitative loss models is low, some information is provided to the public on the broad nature and specification of these models. The Federal Reserve does provide a high-level discussion and summary of key models used in the stress testing process as well as data on loss rates for a range of specific assets for a selection of quantitative loss models.⁷

The provided descriptions give the public a broad sense of the nature of each of the models that is described but the description is sufficiently high-level so as to obscure key elements of each model's specification. The provided descriptions articulate key scenario variables and key data items that are included in the loss model but do not say how these variables are included or the quantitative significance of the variables that are included. To analogize, the descriptions effectively describe a lemon chiffon cake as consisting of some flour, some eggs, some sugar and some butter and flavorings – the ingredients in most any cake. Overall, the descriptions are not sufficient to allow for a critical examination of their specification or to assess their impact. An

⁷ See <https://www.federalreserve.gov/publications/2023-june-supervisory-stress-test-methodology-modeled-loss-rates.htm>

example of one excerpt from the discussion of the Federal Reserve's PPNR model highlights this issue,

“The specific macroeconomic variables that enter each regression model differ across equations and are chosen based on statistical predictive power and economic theory. For example, yields on U.S. Treasuries are key variables in the models of the interest income and expense components, while GDP growth, stock market volatility, and stock returns are featured in many of the models of the noninterest income and noninterest expense components.”

The discussion above offers little specificity aside from a few examples of variables that are included in “many” of the models. Moreover, the provided discussion does not include any indication of the quantitative impact or contribution of these variables. While the discussion does provide a modicum of high-level and abstract discussion, the information provided would be of little use to the public or a quantitative analyst attempting to fully understand how the model translates bank data and scenario assumptions into stress test projections.

In addition to these broad, high-level, model descriptions the Federal Reserve also provides an annual discussion of changes that are made to the stress testing models. Like the model descriptions themselves, the description of model changes is broad and high-level. In addition, the changes are described in relation to models that are not transparently documented making it more challenging to fully understand the nature of the changes being described.

As a specific example, in 2023, the Federal Reserve disclosed the following model change,

“The international other consumer, international small-business, international first mortgage, and international home equity portfolios, which are components of the other retail loans model, will be assigned loss rates associated with a percentile of the historical loss distribution. Under the supervisory severely adverse scenario, this percentile is related to the frequency of severe recessions.”

The change described above does not provide any transparency to the magnitude of loss rates assigned beyond communicating that a loss rate associated with a “severe recession” is assigned. Clearly, without any further discussion of what is meant by a “severe recession” or what percentile of the loss distribution is employed, the provided description has effectively no empirical or substantive content that could be used to critically assess the reasonableness of the model change.

5. The Importance of Transparency in the Stress Testing Framework

a. The Historical Source of the Federal Reserve's Lack of Stress Testing Transparency

Having described the range of transparency that exists within the stress testing regime, it is appropriate to discuss the importance of transparency in the stress tests. Before doing so, however, it is important to briefly discuss the historical evolution of the stress test as, in many things, history has much to do with where we are today.

As previously discussed, before the Financial Crisis bank regulators did not regularly use stress tests to assess capital adequacy. During the Financial Crisis, however, regulators decided to stress test the 19 largest banks in order to assess the health of the banking sector and instill public confidence in its solvency. The desire to quickly develop, execute, and communicate the results of the stress tests to the public, as well as to ensure the stability of the banking sector – given the economic effects of the Financial Crisis – outweighed the importance of providing transparency regarding the design of the stress tests.

While such a choice at that time was clearly defensible, though still debatable, there is no such compelling argument more than 15 years after the financial crisis. Indeed, the basic transparency contours of stress testing in today's stress tests bear a striking resemblance to the initial SCAP. Specifically, in the SCAP regulators disclosed the scenarios that were used as well as form templates that were used to collect data from each of the 19 firms but did not provide detailed disclosures on the supervisory models employed nor did they seek public comment on these models.⁸ Fifteen years after the financial crisis it stands to reason that the approach to transparency within the stress tests is ripe for vigorous reconsideration.

b. Transparency Promotes Good and Open Governance

Government regulation in the United States is characterized by a high degree of transparency and openness. Across a wide range of government functions, whether it be the regulation of taxes, auto safety standards, or food and drug safety, government regulation is conducted in the open under the scrutiny of the public eye. More specifically, there is a clear recognition that regulated entities and the public have a right to know and understand the

⁸ In the SCAP, PPNR and loss projections were generated through a combination of supervisory and bank models. Today, only supervisory models are used in the stress testing process.

regulations to which they are being held. The case for such openness and transparency in the case of stress testing is no different from any other arena of government regulation.

There are three key rationales for openness and transparency in government regulation. First, openness and transparency bring to bear the widest and most diverse range of views in addressing a particular problem that is to be addressed by regulation. As regulation is generally involved in addressing complex problems, such problems are generally best addressed when more and not fewer ideas are considered in the crafting of a regulation. More generally, it is difficult to identify any serious mode of inquiry in which better outcomes are yielded by restricting, rather than expanding, the source of ideas and feedback that are considered. Second, openness and transparency guard against an inappropriate use or misuse of authority. History provides ample examples in which a lack of transparency and openness has been used to exercise an undue use of authority. Conducting government regulation in an open and transparent manner ensures that light can serve as a powerful disinfectant that promotes the appropriate exercise of authority and good governance. Third, openness and transparency in government regulation promotes accountability for regulators. A clear and unfiltered understanding of a regulation is a necessary precondition for the public to adequately evaluate its effects on the entities being regulated and the broader public. Regulators must always be accountable to the public so that they have appropriate incentives to get it right and so that regulation can be improved over time. Regulations that are not openly disclosed frustrate the public's ability to hold regulators accountable, which can, itself, lead to an exercise of authority that does not serve the public's interests.

c. The Stress Tests Drive Credit Allocation in the U.S. Economy

Perhaps the most compelling reason to provide more transparency to the stress testing process is that the stress tests have a clear and discernible impact on credit allocation in the U.S. economy. While the stress tests are not appropriately transparent, some limited information is made available to the public through annual stress testing disclosures. Further, the Federal Reserve has, on occasion, provided academic researchers with access to stress testing data that is not generally available to the public. The Federal Reserve requires appropriate anonymization of any disclosed data and approves any such research work product prior to publication. Using this limited data, various researchers have examined the impact that the stress tests have on credit

allocation. The findings clearly suggest that the precise specification and calibration of the stress test have had a measurable impact on credit allocation.

In one recent research [paper](#), economists examined the impact of stress testing and concluded that

“Banks subject to stress tests have strongly cut small business loans secured by home equity, an important source of financing for entrepreneurs. Lower credit supply has led to a relative decline in entrepreneurship during the recovery in counties with higher exposure to stress tested banks.”

The results of this research underscore how the stress testing process affects the entire economy. Specifically, evidence suggests that the Federal Reserve’s implementation of the stress tests is harming small businesses and is also leading to a lack of dynamism in the economy through reduced entrepreneurship.

In another recent [paper](#), economists found that the stress tests have had measurable deleterious consequences for the hospital sector. Specifically, the researchers found that hospitals that obtain funding from banks subject to the stress tests were subjected to a reduction in credit at increased cost that has had a measurable impact on health care outcomes. Specifically, they found that,

“affected hospitals shift their operations to increase resource utilization following a negative credit shock but reduce the quality of their care to patients across a variety of measures, including a significant increase in risk-adjusted readmission and mortality rates. The results indicate that access to credit can affect the quality of healthcare hospitals deliver, pointing to important spillover effects of credit market frictions on health outcomes.”

As in the case of small businesses, available data and research clearly suggest that the stress tests have credit allocation ramifications that impact households, businesses and communities throughout the United States. For the very same reason that the public has a clear and compelling reason to understand and comment on risk-weighted asset calculations via the pending Basel III Endgame (B3E) or GSIB surcharge proposals, the public has a clear and compelling reason to

understand, comment upon, and generally engage with regulators on the precise form and function of the stress tests. Indeed, to the extent that the specification of the stress tests embeds a policy choice about the aggregate level of capital in the banking system and the resulting tradeoff for economic growth, such policy choices should involve and be transparent to a range of key stakeholders and public policy makers.

Because of insufficient transparency in the stress tests, we only know about the credit allocation that has been uncovered to date in the limited research available. It is likely that the stress tests are having much wider and more significant impacts but the public's ability to assess impact is significantly impeded by a lack of transparency. The public's ability to understand and consider the impact of the stress tests would be greatly improved if the stress tests adhered to the same level of transparency that characterizes the rest of the regulatory capital system. In addition, such transparency would improve the quality of research on the impacts of the stress test regime and make it more imperative that the Federal Reserve incorporate such findings into its process.

d. Consistency with the Rest of the Capital and Bank Regulatory Framework

In discussions of stress testing and transparency, a claim is often made that somehow the stress tests are different and deserve a status and treatment that differs markedly from the rest of the capital framework. Such statements are incorrect. With the implementation of the stress capital buffer (SCB) framework, the stress tests are simply one part of an inter-related regulatory capital framework. More precisely, for U.S. GSIBs, their risk-based capital requirement is composed of three parts: 1) a minimum requirement of 4.5 percent, 2) a GSIB capital surcharge that varies depending on the firm's GSIB score, and 3) the stress capital buffer or "SCB" that is a direct result of the stress testing process. Finally, a bank's capital level is measured with respect to a schedule of risk-weights that are used to compute risk-weighted assets (RWA). A bank's capital level relative to its risk weighted assets (RWA) must always be in excess of 1) the required minimum plus, 2) the GSIB surcharge plus, 3) the SCB as described in the equation below,

$$4.5\% + GSIB\% + SCB\% \leq \frac{Capital}{RWA}^9$$

⁹ Technically, both the GSIB surcharge and the SCB are "buffers" and banks may operate at capital levels below that prescribed by full compliance with these buffers. In practice, market participants expect and demand full compliance with all buffers and so the distinction between minima and buffers is merely academic.

As can be seen in the above equation, the stress tests are simply one part of the regulatory capital framework that operates alongside and interchangeably with other aspects of the framework. As an example, if a bank exhibits an increase in its SCB by, say, 1 percentage point, and also exhibits a decline in its GSIB surcharge of 1 percentage point then its regulatory capital requirement is unchanged and the bank's overall economic incentives are similarly unaffected.

At this point it is useful to consider the transparency standard that applies to each component of the regulatory capital framework so that it can be compared and contrasted to the stress testing regime.

Consider the schedule of risk-weights that define RWA. Currently, the banking agencies are reviewing public comments to proposed changes to the risk-based capital framework - a process known as Basel III Endgame or "B3E"; the proposal makes various changes to the existing risk-weight schedule. More generally, the risk-weights that apply to various bank assets are fully transparent at the most granular level and are known to banks and the public. The current B3E process sheds important light on the value of the open and transparent nature of the risk-based capital framework. Importantly, the public comment process has elicited voluminous comment on the proposed B3E changes. In response to these comments, regulators have already indicated that "broad material changes" will be made to the proposal.¹⁰ Accordingly, it is abundantly clear that regulators have found the provided comments to be a useful source of comment and analysis that will ultimately improve the final regulation.

In the case of B3E, the public comment process has generated a wide range of comments from public stakeholders that are not banks. In particular, an [analysis](#) of the B3E public comments found that among 347 comment letters that were examined, 86 percent were provided by sectors outside the banking industry, such as small businesses, interest groups, civil rights groups, agriculture, energy, manufacturing, and other end-user communities, demonstrating it is not just banks that are impacted by bank regulation. Consequently, because the entire economy is affected by capital regulation, it is critical to ensure bank capital requirements are calibrated appropriately through an open, public, and transparent process.

¹⁰ See, <https://www.reuters.com/markets/us/powell-says-he-expects-broad-material-changes-basel-proposal-2024-03-06/>

The voluminous comments by non-banks as part of the B3E process makes abundantly clear that non-banks have a clear and immediate interest in the precise form and calibration of bank capital regulation. The public's significant interest in the form and shape of capital regulation derives from one simple fact – households, businesses and communities are directly affected by bank regulation as it impacts the cost and availability of credit in the economy. Regulators themselves have openly acknowledged the value of these public comments to the B3E rulemaking process. Accordingly, the open and transparent B3E process has elicited a diverse range of views, provided relevant information which the banking agencies must consider, and provides a significant degree of public accountability. Considering the clear and significant benefits that public transparency has brought to the B3E process, it is difficult to understand why regulators are unwilling to reap such benefits in the context of the stress tests that function as one interdependent part of the overall bank capital regime.

Apart from the SCB, the regulatory capital requirement for U.S. GSIBs is also influenced by the GSIB capital surcharge. Like the SCB, the GSIB surcharge results in year-to-year variation in a bank's overall regulatory capital requirement. Quite unlike the SCB, however, the GSIB capital surcharge is completely transparent and known to banks and the affected public. More precisely, the GSIB surcharge capital rule was proposed and finalized through the notice and comment process. In addition, in July of 2023 the Federal Reserve publicly proposed and sought comment on a number of significant changes to the GSIB surcharge capital rule. The technical specifications of the rule including the specific data elements that comprise the "GSIB score" as well as the precise mapping that translates scores to surcharges is available to the public. Accordingly, neither banks nor the broader public have any uncertainty regarding how the GSIB surcharge is calculated or applied to large banks.

Similar to the experience of the B3E rulemaking process, a review of the 73 public [comment letters](#) filed in conjunction with the recent GSIB surcharge proposal clearly document a wide array of stakeholders. Academics, public interest groups, energy and commodity concerns, and non-bank financial institutions have all provided valuable, public comment on the proposal. As in the case of the B3E process, the public comments provide an effective means to gather a diverse set of views, appropriately limit the exercise of regulatory authority, and promote public accountability that undoubtedly serves to improve the shape of the final rule.

Finally, while the whole of the risk-based regulatory capital framework, aside from the stress tests, is open and transparent to the public, it is important not to lose sight of the broader frame in which the risk-based capital framework sits. All manner of bank regulation is broadly open and transparent to a degree far exceeding that of the stress tests. Apart from risk-based capital requirements, banks are also subject to leverage-based capital requirements – all of which are subject to the open and transparent public comment process. Relatedly, bank liquidity requirements, single counterparty credit limits, derivative margining requirements, and activity restrictions such as the Volcker Rule are all crafted in accordance with a public notice and comment process and final regulations, in their entirety, are available to the public. Any argument or suggestion that somehow stress testing is “different” and should be subject to different transparency requirements conflicts with basic standards of good governance and public accountability while contradicting long-established practices that are widely adopted throughout the whole of the bank regulatory framework.

e. Promoting Prudent Risk Management and Resource Allocation

At their core, capital requirements are about risk. Regulator prescribed capital requirements make a clear statement about the risk of various bank assets that are intended to ensure that riskier assets are funded with more loss absorbing capital. This is an appropriate goal of capital regulation. For the risk signal embedded in capital regulation to have an effect, however, banks must understand the capital regulation to which they are subject so that they can adapt and plan accordingly. As an example, if the risk of a certain asset increases and regulatory capital requirements increase, a decision by a bank to moderate or otherwise hedge its exposure to that asset would generally be identified as prudent risk management.

In the case of risk-weights, the subject of the current B3E proposal process, banks actively consider the specific and granular risk weights assigned to various assets such as mortgages, small business loans, and auto loans. Indeed, the voluminous and productive commentary received as part of the B3E proposal process underscores the clear understanding the public has about how bank’s use the information contained in regulatory capital standards to make prudent risk management choices. Risk-weights that are not tied to risk or embed incorrect risk assessments can result in poor risk management incentives and capital allocation decisions that are not consistent with real underlying risks and divert bank funding from its most productive and efficient use.

Similarly, as banks consider how to allocate bank funding to various assets they consider how such allocations would influence their regulator-defined systemic risk profile, as defined by the GSIB Score, and resulting capital requirements, as defined through the GSIB surcharge. In the context of the GSIB Score and Surcharge, regulators have broadly applauded banks' internalization of the rule and its impact on their capital requirements. As an example, in voting to approve the final GSIB Surcharge rule in 2015, Chair Janet Yellen remarked that,

“In practice, this final rule will confront these firms with a choice: they must either hold substantially more capital, reducing the likelihood that they will fail, or else they must shrink their systemic footprint, reducing the harm that their failure would do to our financial system. Either outcome would enhance financial stability.”¹¹

As this statement makes clear, regulators understand and approve of the fact that banks internalize regulatory constraints and actively consider them when making business decisions. When capital regulations are appropriately specified, doing so ensures that banks are able to allocate the scarce resources they steward to the use that achieves the best risk-adjusted return for the economy.

Relatedly, the Basel Committee on Banking Supervision recently [published](#) a ten-year retrospective on the impacts of the GSIB surcharge framework, itself a global capital standard, in which they find that, “[t]he analysis suggests that G-SIBs have adjusted their balance sheets in a way that is broadly consistent with the incentives of the G-SIB framework.” Accordingly, regulators clearly acknowledge and applaud the fact that banks use the information embedded in transparent capital regulations to inform their risk management decisions on a regular basis.

For reasons that are difficult to understand, regulators take an altogether different and generally dim view of banks' responding to the incentives embedded in the capital framework as it relates to stress testing. Such efforts by banks are typically labeled as “gaming” or “regulatory arbitrage” whereas the same action in the context of assessing risk weights or GSIB surcharges is viewed as a natural and indeed laudable feature of sound risk management.

A common argument that is used to support a lack of transparency in the context of the stress tests – but not in the context of risk-weights or GSIB surcharges – is that somehow, in some unspecified and unarticulated manner, banks would use information embedded in the

¹¹ <https://www.federalreserve.gov/newsevents/press/bcreg/yellen-statement-20150720a1.htm>

specification of the stress tests to make changes to their asset allocation that would reduce the stress test result without reducing actual risk.

This argument is highly problematic for at least three reasons. First, and foremost, an unstated predicate of the argument is that the calibration of the stress test is incorrect. That is to say, there is an aspect of the stress test that misidentifies risk – otherwise banks would be unable to change their asset allocation without changing the risk measured by the stress test. If there is a concern by regulators that the stress tests are flawed and incorrect, the first question to be answered should be, “how can we improve the stress tests and rectify the problem?” As has been discussed previously, history and experience clearly show that complex problems are best solved when more and not fewer eyeballs are fixed on the problem. Making the specification of the stress tests more transparent would improve the ability of outside experts, academics, and other stakeholders to identify any such inaccuracies in the stress testing framework. What’s more, maintaining opacity in the stress tests will surely result in a stress testing framework that is more likely to exhibit the very flaws that regulators are concerned about in the first place.

Second, regulators appear to believe that the only remedy for a flawed and inaccurate stress test is opacity. This is incorrect and inconsistent with long-standing and existing regulatory practice. More specifically, regulators routinely use the supervisory and oversight authority to examine how banks comply with an entire array of bank regulations. If regulators are of the view that a particular aspect of the stress test is being exploited, they can identify the problem through the supervisory process and then publicly explain their reasoning and propose amendments to the stress tests to address the supposed problem through the usual notice and comment process.

Indeed, regulators regularly adopt this approach in the context of other regulations. As a specific example, one specific change being suggested in the Federal Reserve’s recent GSIB Surcharge proposal relates to an aspect of the GSIB score calculation that regulators suggest is subject to manipulation by banks. In response, the Federal Reserve is not proposing to make the GSIB score and surcharge process opaque as is the case for the stress tests so that banks can no longer “manipulate” their scores. Rather, the Federal Reserve is publicly proposing a change to the GSIB surcharge calculation that they believe would address the issue. The Federal Reserve’s public proposal is important as it allows the public to evaluate the claim being made by the Federal Reserve as it relates to potential manipulation, and it allows the public to comment on the

proposed solution and whether it addresses the putative concern at reasonable cost. In general, there is no compelling reason why a similar process could not work in the context of the stress tests. The public proposal and comment process is regularly used to address such concerns while providing for a range of views on the concerns raised as well as the proposed remedy.

Third, this argument effectively assumes banks are bad actors from the start and presumes mal intent. Using opacity to guard against manipulation assumes that any attempt by banks to adjust their asset allocation in light of the stress tests is being done for inappropriate reasons. A regulator should not hold an initial presumption that the entities it regulates are motivated by mal intent. Such a view creates an unhealthy dynamic between the regulator and the regulated entity that is overtly and unnecessarily adversarial. Regulators should engage with banks in an open and transparent manner that begins with an expectation that they aim to comply with both the letter and spirit of any regulation in an above-board and forthright manner.

Another argument that is commonly used to argue against transparency in the stress tests is the notion that if banks are provided with greater stress test transparency, we will observe a “model monoculture” that simply converges to the stress testing model. This argument does not comport with economic theory or observed practice. On the theory side, risk modeling and risk management is perhaps the single greatest competitive margin in banking. If all banks slavishly adhered to a single regulatory model, the incentive for a bank with better information to outcompete its competition by using that information would be extreme. Competition in the banking market would largely deal with the monoculture concern. As to observed practice, recall that banks already operate under a system of regulator prescribed risk weights. If the monoculture concern were at all relevant, we would already have seen the predicted convergence to a model monoculture as banks would have simply reverse engineered the risk management model embedded in risk weights. In practice, we observe a healthy degree of variation in banks’ risk assessments. Moreover, bank regulations in other areas such as liquidity regulation also make use of such “regulator models” and we simply do not observe the sort of model monoculture that the argument predicts is certain to arise. Finally, and perhaps most importantly, regulators have wide latitude and authority to monitor and assess bank behavior. If such a model monoculture concern was realized in practice, regulators could identify the issue and take steps to address the identified problem – presumably in a public and transparent fashion.

f. Transparency Reduces Regulatory Uncertainty

An important cost of reduced transparency in the stress testing framework is regulatory uncertainty. Regulatory uncertainty arises when regulated firms are unable to understand the regulations to which they are subject and are likewise unaware of how those regulations may change in the future. In the case of the stress tests, a key source of regulatory uncertainty is variation in firm-level SCB's that are not attributable to any specific factors that banks can identify because they are not aware of how the stress tests are conducted. The fact that the stress tests result in significant variation in SCB's is clear. Looking at data on published SCB's over the past few years shows several cases in which SCB's vary by as much as a full percentage point from one year to the next. In some exceptional cases, SCB's have been known to vary by several percentage points.

The result of this regulatory uncertainty is to reduce the ability of banks to engage in capital planning and to reduce the effectiveness of whatever capital planning occurs. Banks often make long-term investments, such as lending a company funds for a term of five-years. The amount of capital required to fund a bank loan is a primary determinant of a bank's willingness and ability to fund a loan. If a bank believes that its regulatory capital requirement might increase by one or more percentage points over the course of the next five-years, its willingness to engage in such long-term investments will be meaningfully curtailed.

Likewise, investors rely on regulatory capital levels to assess the overall health of financial institutions. A firm that exhibits a sharp increase in its required capital may be viewed as more risky by its investor base. If the increase in capital is a result of changes to its GSIB surcharge or a change to B3E risk-weights, investors and bank management can jointly assess the nature of the increase. Indeed, banks often spend copious amounts of time on earnings calls discussing developments in their risk-weighted asset levels and GSIB surcharges. If, however, a firm sees a marked increase in its SCB, it very often will not have a clear understanding of the reason for the increase due to the lack of transparency in the stress testing framework. As a result, bank management and investors are often only left to wonder what prompted the increase. The resulting variability in capital requirements adds to the uncertainty surrounding investments and banks, which generally reduces the attractiveness of bank investments relative to, say, investments in unregulated non-banks.

Finally, when banks do not understand the determinants of their SCB, they are forced to make hard choices in an unnecessarily uncertain environment. Confronted with a significant increase to its SCB, a firm may conduct an analysis to try and understand the source of the increase. With incomplete information, the bank will have to form an uncertain judgement and may adjust its balance sheet based on imperfect information. As a result, the bank may reduce or otherwise adjust its balance sheet in ways that are not appropriate given the actual specifics of the stress test, but without more information it is impossible to make a more informed adjustment. As a result, activities and bank assets may be impacted merely as a matter of collateral damage rather than as a result of any actual link to increased risk.

6. Recommendation to Improve Transparency in the Stress Testing Process

The stress tests are characterized by a low level of transparency that deprives the public of a clear understanding of how large banks' capital levels are regulated. The approach taken in the stress tests is counter to the transparent approach taken in the rest of the bank regulatory framework and stands in stark contrast to well accepted and long-established norms of good governance. Clearly, significant reform to improve the amount of transparency and public oversight in the stress tests is required.

Importantly, in the name of transparency, when determining appropriate solutions, we should engage in a deliberate public process that considers a variety of alternative remedies and seeks input on those remedies from banks, the public, and other key stakeholders. Nevertheless, it is worth outlining some key areas where reform could be most useful while providing some thoughts on remedies that could be considered as part of public deliberation.

With regard to stress scenarios, consideration should be given to providing the public with a structured opportunity to comment on the scenarios. There are a variety of mechanisms that could be employed for this purpose ranging from engagement at roundtables and other public events to a formal notice and comment process. A more regular and structured engagement with the public on the form and shape of the stress scenarios would help ensure that the Federal Reserve considers and benefits from the widest range of views on risks to the U.S. economy and banking sector while also guarding against potential regulatory groupthink.

In addition, consideration should be given to making all variables that encompass the stress scenario fully transparent and public. Stress scenarios that provide quantitative paths for some variables and only a high-level discussion of others creates a hazy and inaccurate picture of the specific scenario under consideration.

With respect to the quantitative models that drive the stress testing process, consideration should be given to significantly increasing the amount and degree of transparency that is provided to the public. The standard notice and comment process that is used in the case of risk-weighted asset requirements (e.g. B3E), or GSIB surcharges, or any number of other regulatory requirements, should serve as the baseline in this discussion. To the extent that there are any departures from the notice and comment process, these departures should be specifically identified for the public, and such departures should be explained and supported through a public process.

Regarding the administration and execution of the stress tests, consideration should be given to the use of an outside and independent audit function that does not reside within the Federal Reserve system or the U.S. Government. The stress testing regime is highly complex consisting of large-scale data requirements, highly complex and sophisticated quantitative models, and a battery of related complex processes that are needed to execute the stress tests each year. Banks and other private entities are regularly required to have such complex internal processes audited and reviewed to the satisfaction of regulators and outside investors. The same motivations for such audits at private entities would also support a similar exercise in the case of the stress tests. Any audit process should consider, at a minimum,

- The accuracy of data collected and how it is maintained, stored and ultimately fed into the stress test models
- The composition of the specific computer code that is used to translate the documentation of each model into an actionable calculation that is included in the stress test
- The governance process that is used to maintain the stress testing infrastructure including the process for updating and documenting changes to models as well as any changes to data feeds that are implemented as models are updated
- The accuracy and correctness of the final stress test results that are generated in each year's exercise.

Such an audit process could be used to provide an independent, external report to the Federal Reserve Board and certain aspects of that audit report could be made available to the public to provide the public with additional evidence in support of the integrity of the stress testing regime.

7. Conclusion

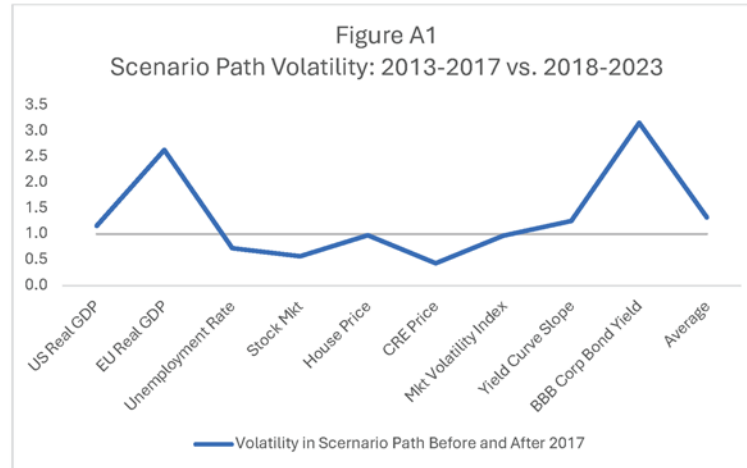
The stress tests have emerged as a central component of the large bank capital regime since the initial SCAP exercise was conducted in 2009. Appropriately calibrated and conducted, the stress tests serve as an important tool to safeguard the safety and soundness of the banking system and our economy. There is no debate about whether the stress tests should be conducted. Rather the debate focuses on how the stress tests should be conducted.

The approach to transparency in today's stress tests is largely a vestige of the hurried, historical development of the stress tests that occurred during a deep financial crisis when the need to act quickly and decisively potentially outweighed the need for public transparency. Fifteen years following the SCAP, it is time to align stress testing transparency standards with the rest of banking and government regulation.

Transparency in regulation is a touchstone of good government. Regulatory transparency ensures that the public can understand how their public institutions operate in the light of day and allows the public to assess the impact of regulation on affected entities and the broader economy. Banking regulations that are opaque frustrate prudent risk management and create costly regulatory uncertainty that has deleterious effects on the whole economy.

A broad, public, and transparent public policy discussion should now ensue to place the stress testing regime's approach to transparency on more thoughtful and firmer footing that fits more comfortably within our nation's long held and practiced commitment to an open and accountable government.

Appendix

**Table A1: SCAP vs. Stress Test 2024 ¹²**

Scenario Peak to Trough Stress (%)	SCAP	2024	Difference
Unemployment Rate Increase	3.4	6.3	2.9
U.S. Real GDP Decline	-3.3	-8.8	-5.5
House Price Decline	-27.5	-36.0	-8.6

¹² Data coming from: [The Supervisory Capital Assessment Program: Design and Implementation, Apr. 2009](#) and [2024 Stress Test Scenarios, Feb. 2024](#).

Chairman BARR. The gentleman's time has expired.
Mr. Covas is now recognized for 5 minutes.

**STATEMENT OF FRANCISCO COVAS, EXECUTIVE VICE
PRESIDENT & HEAD OF RESEARCH, BANK POLICY INSTITUTE**

Mr. COVAS. Chairman Barr, Ranking Member Foster, and subcommittee members, thank you for the opportunity to testify today.

My name is Francisco Covas, head of research at the Bank Policy Institute. We are a research and advocacy group supported by banks with over \$100 billion in assets. Our membership spans a full range of banks under the Federal Reserve's stress tests, so we are keen to testify today.

The stress testing regime that underpins the capital framework for large banks consistently demonstrate that U.S. banks are well capitalized and can continue to support the economy during economic downturns. Since 2020, stress tests results have been used to set the stress capital charge, effectively part of larger banks' minimum capital requirements.

We support using a stress capital buffer in overall capital requirements. However, the lack of transparency in the Federal Reserve stress testing regime has significant economic costs that can adversely affect U.S. financial system and the broader economy. The opacity and inaccuracy of the Fed's models create uncertainty for banks about the level of capital they are required to hold, leading to excess "uncertainty buffers" that reduce credit availability and decrease market liquidity.

In my written testimony, I provide several examples that highlight the inaccuracies and the volatility inherent in supervisory stress testing models used to determine the stress capital buffer.

Year after year, we observe significant fluctuations in the stress capital buffer that often fail to reflect equitable changes in banks' risk profiles. This disconnect can be attributed to various factors.

First, the lack of granularity in the Fed's revenue projections, which are prone to inaccuracies and volatility. Second, the Fed's models consistently underestimate trading revenues during times of higher market volatility, a finding that runs counter to historical experience. Third, operational risk loss models have proven to be inaccurate, with projected losses increasing in the post-pandemic period despite the absence of the corresponding rates in real-world losses. Fourth, long lost models also tend to overestimate losses compared to banks' internal projections, likely due to the Fed's inability to properly account for bank-specific factors. Fifth, compounding these issues is a flawed reconsideration process for appealing stress test results, which suffers from a lack of independence and transparency.

It is also important to have notice and common on the scenarios used to calculate the stress capital buffer. Our analysis reveals that the 2024 stress scenarios divert significantly from historical experience and the Fed's own guidance. Several macroeconomic variables in these scenarios are dramatically more severe than those observed in previous U.S. recessions.

Consider this example: In just the first quarter of the stress planning period, the severely adverse scenario in the year's stress test assumes a decline in the house price index exceeding 15 per-

cent, and this is not annualized. This projection far exceeds what we observed during the 2007, 2009 global financial crisis. Such an extreme scenario implies unprecedented shifts in other macroeconomic variables, including sharper initial increases in employment rate and steeper declines in short-term rates. The result, financial institutions face considerably higher projected losses and lower revenues compared to prior severe recessions.

Moreover, the calibration of the global markets are a component that applies to the largest banks and has become less transparent over time, so it is not clear what scenario the global markets (GMS) currently represents.

In summary, increased transparency in the Fed's stress testing regime is necessary to reduce uncertainty and promote a more efficient financial system. U.S. banks are very well capitalized, but the current stress capital buffer framework suffers from excessive volatility, inaccurate projections, and a flawed reconsideration process, leading to less lending and increased market liquidity.

Moreover, the stress analysis violate the Fed's own guidance, and that is significantly more severe than historical recessions. Allowing public comment on scenarios and supervisory models would enable extensive review by experts, academics, and banks. This would increase transparency in scenario design and improve model accuracy, fostering a more effective financial system that better serves U.S. economy's needs.

Thank you again for the opportunity to testify. I look forward to your questions.

[The prepared statement of Mr. Covas follows:]

Testimony of Francisco Covas

Bank Policy Institute Executive Vice President and Head of Research

Before the U.S. House Financial Services Committee, Subcommittee on Financial Institutions and Monetary Policy

“Stress Testing: What’s Inside the Black Box?”

June 26, 2024

Chairman Barr, Ranking Member Foster and members of the Subcommittee, thank you for giving me the opportunity to testify today. My name is Francisco Covas, and I am the Head of Research at the Bank Policy Institute, which is a research and advocacy group supported by banks with more than \$100 billion in U.S. assets. As our membership comprises the full range of banks covered by the Federal Reserve’s stress tests, we welcome the opportunity to testify today.

The stress-testing regime that underpins the capital framework for large banks has consistently demonstrated that U.S. banks are well capitalized and can continue to support the economy during economic downturns. Since 2020, stress-test results have been used to set a stress-capital buffer that in effect is one element of banks’ minimum capital requirements.

As codified in the Federal Reserve’s Stress Capital Buffer (SCB) rule, the supervisory stress tests, and by extension the supervisory models and scenarios they use, play a significant role in determining banks’ capital requirements. Therefore, these models and scenarios have real-world implications for the cost and availability of credit to households and businesses, and for the role banks play in intermediation of capital markets. Firms use the results of the Fed’s stress test to allocate capital across business lines and products, to better reflect the capital requirements they face.

Banks support the use of a stress capital buffer as a component of their overall capital requirements, but the Fed’s current stress-test models and scenarios are rules that should be subject to notice-and-comment process under the Administrative Procedure Act (APA). In violation of the APA, the Fed discloses limited details on the construction of the scenarios; has failed to adopt and adhere to a standard for constructing those scenarios; fails to publicly disclose many important details of its internal models; and adopts changes to the stress tests each year without granting the public an opportunity to comment, despite the significant effects on the covered banks as well as financial markets and the broader economy.

Economic Implications of Lack of Transparency in the Stress Tests

The lack of transparency in the Federal Reserve’s stress-testing regime has significant economic costs that can adversely affect the U.S. financial system and the broader economy. Stress tests are designed to assess the resilience of large banks during severe economic downturns. The process involves Fed staff projecting loan losses and revenues for each bank under a hypothetical recession scenario. However, the opacity and inaccuracy of the Fed’s models create uncertainty among large banks regarding the level of capital they are required to hold. This uncertainty leads banks to hold excess “uncertainty

buffers” of capital, which increases the costs of providing financial intermediation between borrowers and savers, ultimately reducing credit availability and market intermediation.

A seminal paper by Ben Bernanke, former Fed Chairman, was one of the first to formally analyze the impact of uncertainty on business investment.¹ In his paper, Dr. Bernanke demonstrated that increased uncertainty depresses current investment, particularly for long-lived investment projects and decisions that are economically costly to reverse. The capital requirements for large banks are partially determined by supervisory stress tests. As a result, uncertainty about banks’ post-stress regulatory capital ratios, caused by the lack of accuracy and the volatility in the projections of the Fed’s models, is likely to lead to an underinvestment in banks’ financial intermediation activities.

Banks play a crucial role in the economy by transforming short-term liabilities, such as deposits, into longer-term illiquid assets, such as loans. This maturity transformation function is inherently a long-term investment that is illiquid, making it particularly vulnerable to the uncertainty induced by the U.S. stress tests. Consequently, this uncertainty is expected to depress bank lending, leading to suboptimal outcomes for the economy. By increasing the transparency of the stress tests, the uncertainty surrounding banks’ capital requirements would be reduced. This reduction in uncertainty would boost financial intermediation more broadly, improve banking efficiency and promote a better allocation of capital, as suggested by the academic literature.

Banks also serve as critical intermediaries in capital markets, providing market-making, underwriting and liquidity provision services that facilitate efficient price discovery and capital allocation. Capital markets play a critical role in economic growth, providing about 72 percent of equity and debt financing for non-financial corporate issuers.² However, the Global Market Shock (GMS) component of stress tests significantly increases capital requirements for trading and capital markets activities. The GMS assumes unrealistically long periods of market illiquidity during which banks cannot hedge or rebalance portfolios, and imposes these stresses instantaneously, creating implausibly severe scenarios. As a result, banks have been forced to misallocate capital away from capital market activities, potentially reducing economic growth and market efficiency.

Several academic papers have documented the impact of stress tests on the availability of credit in the United States. The academic literature has mainly focused on the severity of the scenarios included in the stress tests. However, this is highly intertwined with the lack of transparency of the models, because both components contribute to the overall stringency of the test.

Acharya, Berger, and Roman (2018) find that banks subject to stress tests have reduced the supply of credit to borrowers with less than pristine credit scores and to cyclical firms, including small businesses.³ Calem, Correa, and Lee (2021) show that stress tests has led to the reduction in originations

¹ See Bernanke, Ben S., “Irreversibility, Uncertainty, and Cyclical Investment,” *Quarterly Journal of Economics*, February 1983, Vol. 98, No.1, pp. 85–106.

² SIFMA, US Capital Markets Are the Largest in the World: 2023 Capital Markets Fact Book (2023), available at <https://www.sifma.org/wp-content/uploads/2022/07/2023-SIFMA-Capital-Markets-Factbook.pdf>

³ Acharya, Viral, Allen Berger, and Raluca Roman, “Lending Implications of U.S. Bank Stress Tests: Costs or Benefits?,” *Journal of Financial Intermediation*, April 2018, Vol. 34, pp. 58–90.

of jumbo mortgage loans.⁴ Chen, Hanson, and Stein (2018) demonstrate that the four largest banks significantly cut back on lending to small businesses after the Global Financial Crisis (GFC) relative to the rest of the banking sector.⁵ Crucially, they show that this reduction in small business lending led to a decline in the fraction of businesses that expand employment. A cut in such lending also results in slower employment growth, a higher unemployment rate and slower wage growth in counties where the largest banks had a significant presence.

Moreover, Cortés, Demyanyk, Li, Loutskina, and Strahan (2020) showed that banks most affected by the stress tests reduced their supply of small business loans by increasing loan rates and shifting their portfolios toward safer loans.⁶ Brauning and Fillat (2020) found that since the implementation of the annual stress tests in 2011, the portfolios of stress-tested banks have become more similar.⁷ Banks that had poor stress-test results adjusted their portfolios to resemble those of banks that performed well. Although stress testing has led to more diversified individual bank portfolios, it has also resulted in a more concentrated overall portfolio among large banks. Furthermore, banks with worse stress-test results have reduced lending in loans most sensitive to the stress-test scenarios, leading to real economic effects for borrowers. Importantly, the act of banks shifting lending to portfolios that perform well in the stress test without transparency into the approach may lead banks to make decisions based on opaque criteria rather than sound risk assessment, potentially introducing new vulnerabilities into the financial system.

Finally, uncertainty around capital requirements also poses significant challenges for banks as an investment asset class. U.S. banks have experienced a decline in their market value relative to book value over the past decade, partly due to increased regulation.⁸ This trend makes banks less attractive to investors, as evidenced by their low price-to-tangible-book-value ratios compared to the broader market. This regulatory uncertainty makes it difficult for investors to accurately value banks and assess their risk-return profiles. The result is a higher cost of capital for banks, as investors demand higher returns to compensate for the increased risk and unpredictability. These higher costs are ultimately passed on to customers and businesses in the form of higher interest rates or fees. Moreover, during periods of severe financial stress, this diminished investor appetite could significantly impair banks' ability to raise new capital when it is most needed, exacerbating economic downturns and limiting banks' capacity to support lending and economic growth.

⁴ Calem, Paul, Ricardo Correia, and Seung Jung Lee, "Prudential Policies and their Impact on Credit in the United States," *Journal of Financial Intermediation*, April 2020, Volume 42, pp. 1008–26.

⁵ Chen, Brian, Samuel Hanson, and Jeremy Stein, "The Decline of Big-Bank Lending to Small Business: Dynamic Impacts on Local Credit and Labor Markets," NBER Working Paper No. 23843.

⁶ Cortés, Kristle, Yuliya Demyanyk, Li Lei, Elena Loutskina, and Philip Strahan, "Stress Tests and Small Business Lending," *Journal of Financial Economics*, April 2020, Vol. 136, Issue 1, pp. 260–279.

⁷ Brauning, Falk and Jose L. Fillat, "The Impact of Regulatory Stress Tests on Bank Lending and its Macroeconomic Consequences," FRB of Boston Working Paper No. 20–12.

⁸ See Sarin, Natasha and Lawrence H. Summers, "Understanding Bank Risk Through Market Measures," Brookings Papers on Economic Activity, Fall 2016. Available at <https://www.brookings.edu/wp-content/uploads/2017/02/sarintextfall16bpea.pdf>

In conclusion, the lack of transparency in the Fed's stress-testing regime imposes significant economic costs, including reduced credit availability (particularly for small businesses), slower employment growth, diminished market liquidity, and less efficient capital allocation across the banking sector. While reduced credit for riskier borrowers and lower market liquidity could be optimal if stress scenarios were reasonable and models accurate, we believe neither is currently the case. To address these issues, policymakers should establish a cogent standard for stress scenarios, allow public comment on them and provide full transparency on the models used. By reducing the opacity of supervisory models and subjecting scenarios to notice and comment, policymakers can decrease uncertainty and foster a more efficient financial system that better serves the needs of the U.S. economy.

On the Importance of Notice and Comment on the Models Used to Calculate the Stress Capital Buffer

The current SCB framework faces several critical issues that hinder the ability of banks and other stakeholders to effectively assess and manage capital requirements:

- One major issue is the excessive volatility of the SCB, which can fluctuate significantly from year to year, often without reflecting actual changes in a bank's risk profile. This volatility makes it difficult for banks to plan and manage their capital efficiently.
- The lack of transparency in the SCB framework makes it challenging for banks, investors and other stakeholders to understand how the capital buffer requirement is determined and to propose improvements.
- The stress test also produces inaccurate and counterintuitive results inconsistent with more granular bank models and recent market experience, such as trading and counterparty losses during the COVID-19 pandemic.
- The current reconsideration process for the SCB does not give banks a meaningful opportunity to appeal the stress-test results.

The remainder of this section presents concrete examples of the inaccuracy and volatility of supervisory stress-testing models used to calculate the stress capital buffer. If the Fed made the models transparent, there would likely be substantial review by experts, academics, and banks could then make suggestions to the Fed to update the models to be more accurate and avoid some of the problems that will be discussed next.

SCB Changes Significantly Year Over Year and Often Does Not Align with Changes in a Bank's Risk Profile

The first significant issue with the current stress capital buffer framework is its excessive volatility. Although some volatility in the SCB is necessary and expected as the scenarios change each year to reflect evolving economic conditions, emerging risks and changes to bank portfolios, the current level of volatility appears excessive and disconnected from actual changes in banks' risk profiles. This unpredictability makes it challenging for banks to effectively plan and manage their capital requirements, since there is only one quarter between receiving the stress-test results and the new requirement

becoming effective. By contrast, banks have two years to comply with changes to the global systemically important banks (GSIB) capital surcharge.

Figure 1: Stress Capital Buffers of Large Domestic Banks

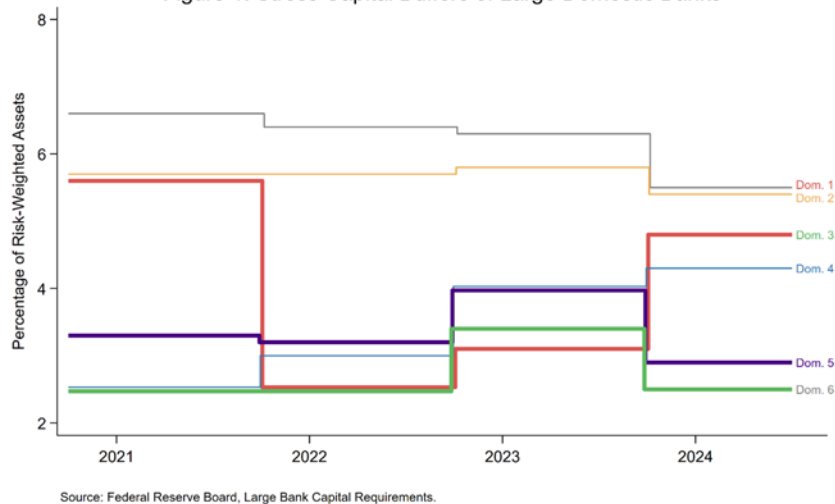


Figure 1 illustrates the time-series variation of six large domestic banks' SCBs since the inception of the framework in 2020. The significant year-over-year fluctuations in SCBs are readily apparent. For instance, the bank denoted as "Dom. 3" (red line) exhibits an SCB of 5.6 percent in 2020, which declines to 2.5 percent in 2021 before rising again to 3.1 percent in 2022 and 4.8 percent in 2023. These annual variations in the SCB translate to changes in capital requirements ranging from 2 to 3 percentage points. To put these findings into perspective, such changes are comparable in magnitude to the increase in capital requirements that would result from the adoption of the Basel III Endgame proposal from July 2023. As has been widely reported, this proposal has encountered substantial opposition from both banks and a range of end users, including civil rights organizations, farmers, pension funds, small businesses and housing groups.⁹ Furthermore, banks are required to comply with the new SCB-based capital requirements in the quarter following the announcement of their SCB. Figure 1 also shows that the banks labeled "Dom. 5" (purple line) and "Dom. 6" (green line) had an approximately 1-percentage-point increase in their capital requirements in 2022, which subsequently retreated to levels at or below their respective 2021 levels in 2023.

⁹ See Latham & Watkins LLP, "Comments on the Basel III Endgame Proposal," February 2, 2024. Available at [Comments on the Basel III Endgame Proposal \(lw.com\)](https://www.lw.com/insights/2024/02/02/comments-on-the-basel-iii-endgame-proposal)

Figure 2: Stress Capital Buffers of Foreign Banks Operating in U.S.

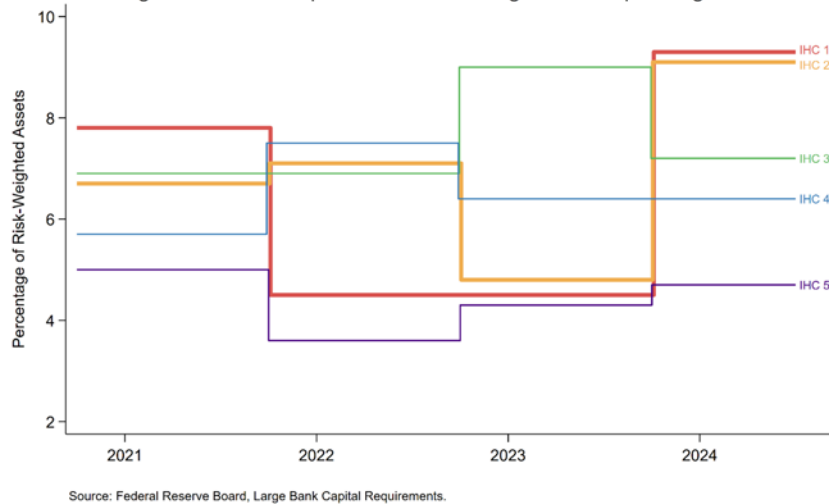


Figure 2 plots the year-over-year changes in the SCB for foreign banks operating in the United States, revealing even more pronounced fluctuations compared with their domestic counterparts. For instance, the bank designated as “IHC 1” (red line) has an SCB of 7.8 percent in 2020, which declines to 4.5 percent in 2021 before surging to 9.8 percent in 2023. Managing the allocation of capital across business lines to accommodate such significant changes in capital requirements within a relatively short time poses a formidable challenge for banks. Similarly, the bank labeled “IHC 2” (orange line) also saw a considerable variation in its SCB between 2022 and 2023, amounting to a staggering 4.3-percentage-point increase. This substantial increase in the SCB of these two banks in 2023 coincided with changes implemented by the Federal Reserve to the pre-provision net revenue (PPNR) models for intermediate holding companies during that year. However, the lack of transparency in supervisory models makes it impossible to determine with certainty whether this is the primary reason for the large increases in capital requirements between 2022 and 2023 for those two banks.

PPNR Projections Are Inaccurate and Volatile

As we noted, one important source of the excessive volatility in a bank’s SCB is from undue fluctuations in the projections of PPNR, the amount of pre-tax profits a bank earns before deductions taken for expected future loan losses and other losses. These projections are one of the main determinants of bank performance in the stress tests.¹⁰ The modeling of PPNR was an important

¹⁰ PPNR is defined as net interest income (interest income earned less interest expense) plus noninterest income minus noninterest expense.

innovation introduced by the U.S. stress tests, but it also remains a major weakness of the supervisory stress tests.¹¹ The supervisory stress test models pertaining to PPNR rely heavily on the following criteria:

- Bank-specific effects and autoregressive parameters are overly sensitive to changes in the sample period.
- The macroeconomic variables included in the supervisory scenarios tend to have low explanatory power in most cases (the notable exception being interest rates in the net interest income projections).
- Supervisory projections of PPNR have been a key driver of year-over-year changes in stress-test results and corresponding stress capital buffer requirements for individual banks. These projections have been volatile. As a result, several banks have submitted reconsideration requests regarding PPNR projections, which the Federal Reserve has rejected.

The supervisory stress tests in 2021 and 2022 revealed that the SCB of several banks increased, partly due to changes in the composition of bank assets. Specifically, the growth in bank holdings of reserve balances and other high-quality liquid assets had an impact on the projected noninterest expense, a subcomponent of PPNR. This experience has reinforced concerns that transitory factors unrelated to bank risk, such as the Federal Reserve's quantitative easing, combined with the lack of accuracy in the supervisory projections of several important PPNR subcomponents, may be unduly influencing the stress-test results and driving excessive volatility.

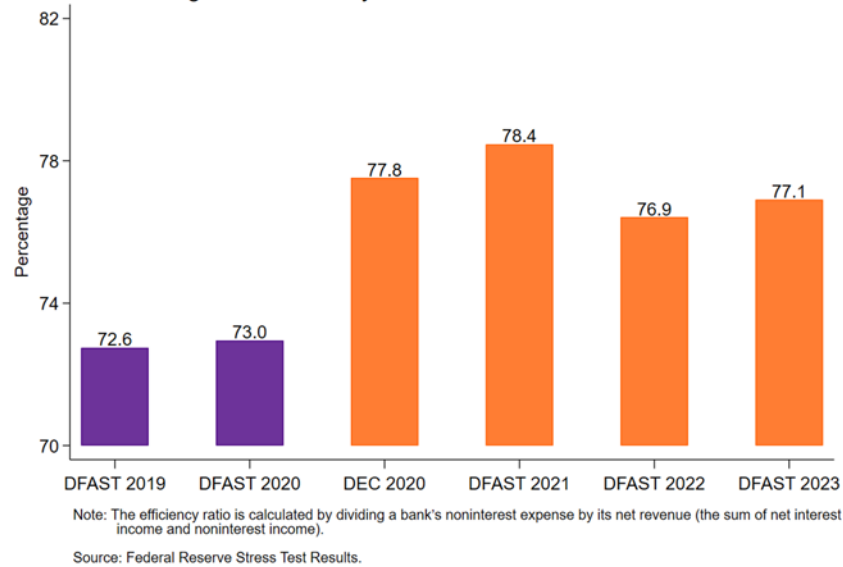
During the COVID-19 pandemic, the Federal Reserve's balance sheet expansion led to a sudden increase in reserve balances and other high-quality liquid assets held by banks. Because the Fed's models assume that noninterest expense is proportional to total assets, even though holding reserve balances entails little or no noninterest expense, the supervisory stress test models overstated the noninterest expense projections of large banks. This overstatement led to larger maximum declines in banks' regulatory ratios and a corresponding increase in capital requirements. The increase in the SCB of several banks was driven in part by these transitory factors unrelated to bank risk, underscoring and reinforcing concerns about the reliability and stability of the projections of several important PPNR components.

As shown in Figure 3, the supervisory projections for the December 2020, DFAST 2021, 2022, and 2023 stress-test results show a material increase in the efficiency ratio compared with the pre-COVID stress tests.¹² Although certain supervisory-modeled revenue items are also normalized by total assets, under the Federal Reserve's methodology, there was a disproportionately higher effect of balance sheet growth on noninterest expense projections.

¹¹ See Hirtle, Beverly (2018), "The Past and Future of Supervisory Stress Testing Design." Federal Reserve Bank of New York. Available at <https://www.newyorkfed.org/newsevents/speeches/2018/hir181009>.

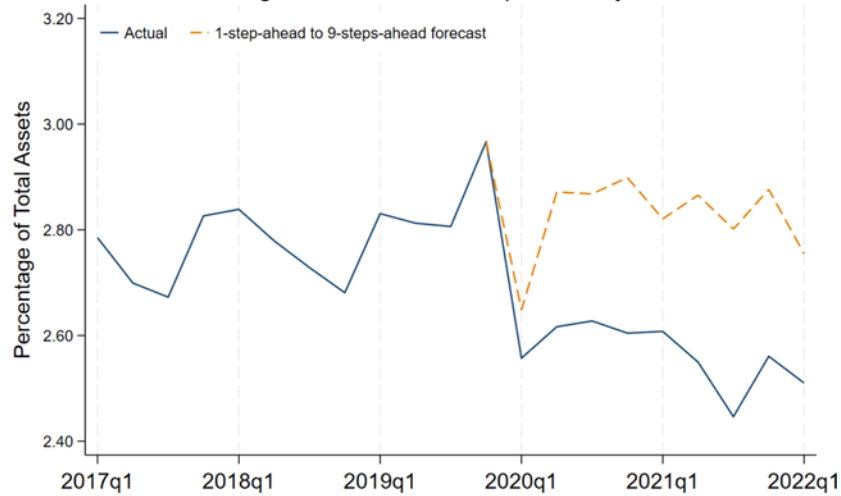
¹² The Federal Reserve started disclosing the projections of the subcomponents of PPNR, which are required to calculate the implied efficiency ratio, after the 2019 stress tests (inclusive).

Figure 3: Efficiency Ratios in 2019-2023 Stress Tests



Another way of showing the distortion of balance sheet growth on expense projections is to analyze the out-of-sample forecasts over the post-COVID-19 period based on models that approximate the supervisory models for noninterest expenses. The Federal Reserve's description of the expense models offers some information about the functional form of the regression models. Based on this description and an analysis of prior stress results, we constructed models similar to those used by the Federal Reserve and applied them to generate the out-of-sample forecasts.

Figure 4: Noninterest Expense Projections



Source: Federal Reserve Board Dodd-Frank Act Stress Tests, BPI calculations.

Figure 4 shows a substantial deterioration in the accuracy of forecasts of noninterest expense post-COVID. The graphed lines plot the 1-step-ahead to 9-steps-ahead aggregate forecasts of noninterest expense for all stress-tested banks. The model did a reasonable job capturing the initial decline in expenses to assets, but it overstated expenses over the rest of the 9-quarter forecasting horizon.¹³

In summary, the implied efficiency ratios derived from the supervisory projections of expenses and net operating revenues indicates that an increase in bank size as a result of the COVID-19 pandemic had a disproportionate effect on the projections of expenses relative to noninterest income because of the inaccuracy of supervisory models.

Operational Risk Loss Models Are Inaccurate

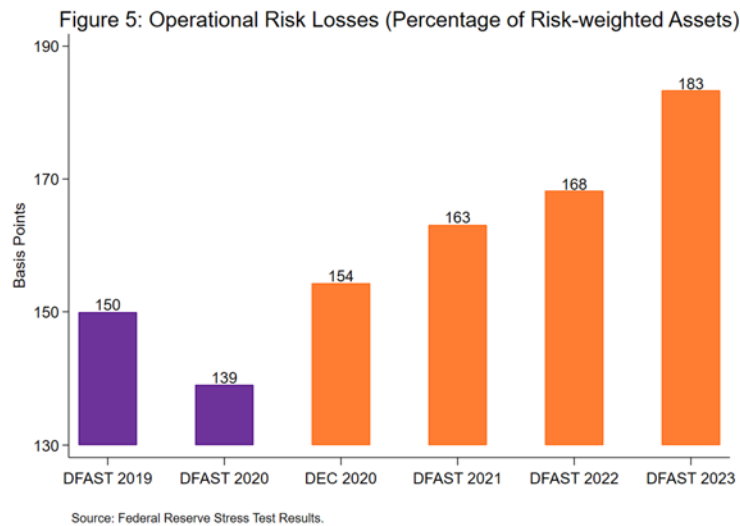
Operational risk encompasses losses resulting from inadequate or failed internal processes, people, systems or external events, including a wide range of potential loss events, such as fraud,

¹³ Moreover, the model picks up the decline in expenses to assets in the first quarter of 2020 for the wrong reason. The driver of the decline in projected expenses to assets is from a decline in compensation due to negative stock returns, whereas in the data, the decrease in expense to assets was caused by an increase in bank size.

cyberattacks, natural disasters and legal or regulatory compliance failures. The Federal Reserve has established no standard for the size or type of hypothetical loss each bank would suffer, and the resulting number appears to be arbitrary. The Federal Reserve's methodology for calculating operational risk losses in the stress tests lacks transparency, preventing oversight by the public and Congress.

Unlike credit and market risk losses, the Federal Reserve does not disclose bank-specific results on operational risk losses to the banks themselves. Furthermore, it does not report sufficient details on the models used, such as the specific percentile of the tail distribution employed to estimate the projected 9-quarter operational risk loss. This lack of transparency leaves banks with little to no visibility into their own operational risk losses as assessed by the Federal Reserve.

Interestingly, operational risk losses as a percentage of the stress capital charge are steadily increasing post-COVID. There is no evidence that banks are incurring losses to justify such a steady increase.



In the 2023 stress tests, operational risk losses accounted for about 25 percent of total estimated losses, playing a significant role in the performance of banks over the 9-quarter planning horizon. As illustrated in Figure 5, operational risk losses are an important determinant of a bank's stress capital buffer size. Estimated operational risk losses have been increasing significantly post-pandemic, but real-world operational losses have not had a similar rise (according to operational risk loss data provided by

ORX).¹⁴ For example, in the 2023 stress tests, losses associated with operational risk events were \$185 billion, which corresponds to more than 1.8 percentage points of risk-weighted assets across all participating banks. The increasing operational risk losses are believed to be linked to banks holding higher liquid asset balances post-pandemic.

Once the Basel III Endgame operational risk capital requirements are implemented by U.S. banks, this duplicative stress test operational risk calculation should be eliminated, since it will be unnecessary as well as inaccurate.

In Volatile Periods, Large Banks Make More Money Trading (Even Though the Fed's Models Say They Don't)

The Federal Reserve's stress-testing models reveal significant shortcomings with respect to the accuracy of their projections of trading revenues for the nine largest banks subject to the GMS component.¹⁵ The primary source of this inaccuracy lies in the insufficiently granular data employed to forecast trading revenues for these institutions. Notably, the trading revenue projections incorporate both the income generated by banks from their trading activities and the mark-to-market gains and losses resulting from fluctuations in the value of their trading assets.

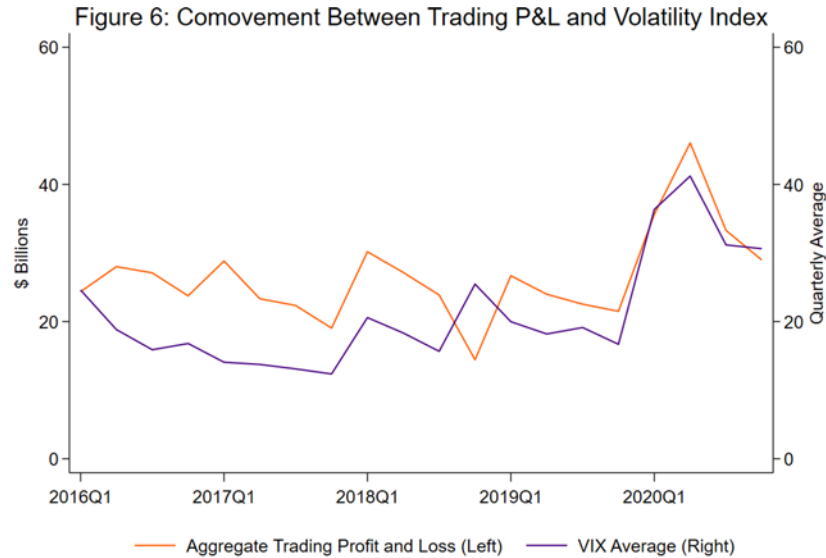
The inclusion of mark-to-market gains and losses within trading revenues gives rise to a scenario in which trading revenues decline as stock market volatility increases. Consequently, this leads to an underestimation of trading revenues starkly at odds with historical experience, which has been that large banks typically generate higher trading profits during periods of heightened market volatility.

As illustrated in Figure 6, banks realized substantial trading income in the initial three quarters of 2020 during the COVID-19 pandemic.¹⁶ These trading revenues can help make up in loan losses during times of stress. However, the Federal Reserve's models do not adequately reflect this real-world dynamic.

¹⁴ See the numerical appendix of "Basel III and standardised approaches to capital Analysis of ORX global banking data in response to regulatory reforms", October 2023, available at <https://orx.org/resource/basel-iii-and-standardised-approaches-to-capital>

¹⁵ The nine banks are Bank of America Corporation, Barclays U.S. LLC, Citigroup Inc., Credit Suisse Holdings (USA), Inc., DB USA Corporation, The Goldman Sachs Group, Inc., JPMorgan Chase & Co., Morgan Stanley, and Wells Fargo & Company.

¹⁶ See Abboud, Alice, et al., "COVID-19 as a Stress Test: Assessing the Bank Regulatory Framework COVID-19 as a Stress Test: Assessing the Bank Regulatory Framework," April 2021, Finance and Economics Discussion Series, Board of Governors of the Federal Reserve. <https://www.federalreserve.gov/econres/feds/files/2021024pap.pdf>.

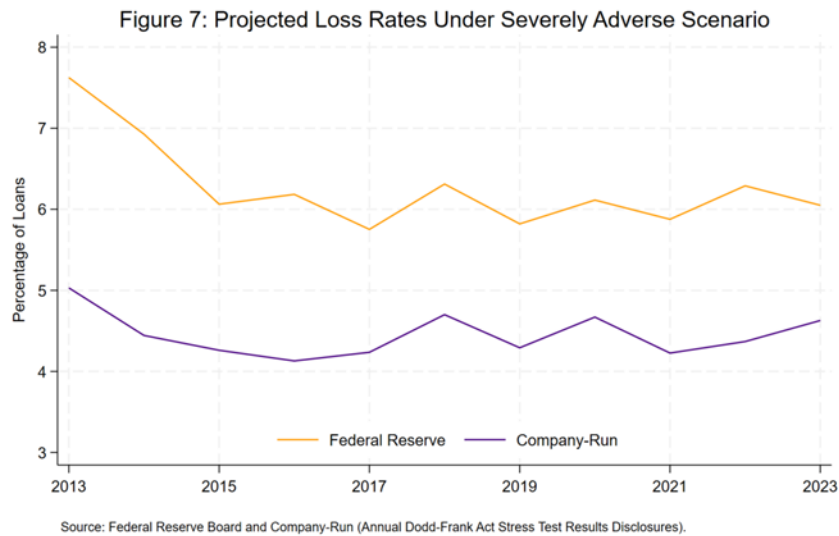


The Fed's PPNR models are particularly inaccurate for banks subject to the Global Market Shock (GMS), because the trading revenue data are not limited to the income banks derive from fees, commissions and the bid-ask spread when executing trades on behalf of their clients, but also include mark-to-market losses. However, the largest banks with significant trading operations are already subjected to a separate assessment of losses stemming from changes in the value of their trading assets, the GMS component. For banks falling within the scope of the GMS component, the amalgamation of income from client trading activities and gains and losses from changes in asset values effectively results in a double counting of losses from asset value fluctuations. This issue is further exacerbated by the substantial losses incurred during the 2008 financial crisis in mortgage and structured credit products. These losses distort the coefficients of the trading revenue model used to generate trading revenue projections, because those products are now far less significant in bank trading portfolios.

The Federal Reserve could rectify this issue and demonstrate the real-world positive correlation between trading revenue from client activities and market volatility by leveraging data already reported by banks through the Volcker Rule metrics or the FR Y-14 report series.

Loan Loss Models Are Inaccurate

The projections of loan losses generated by the Federal Reserve in its supervisory stress tests have consistently surpassed the internal projections of the participating banks (Figure 7).¹⁷ This divergence can be potentially attributed to differences in the loss-forecasting models and balance sheet assumptions used by the Fed and the banks. An analysis of loss rates at the portfolio level reveals that the Fed's models yield higher projections across all loan portfolios, with the notable exception of credit card loans.



The higher loan loss projections produced by the Fed's models for all loan types, except credit card loans, indicate that these discrepancies could be attributable to the Fed's inaccurate estimates of loss given default (LGD). The absence of such differences in credit card loan projections can be ascribed to the fact that the LGD for these loans typically approaches 100 percent. Unfortunately, the Fed does not present a breakdown of the portfolio-level loss rates into their key components, such as probability of default (PD) and LGD, making it difficult to definitively identify the source of the discrepancies. However, the Fed's elevated loan loss projections for the other portfolios may stem from its failure to incorporate bank-specific effects in its projections, partly because it lacks the necessary data to capture the unique characteristics and business models of individual banks. These simplifications most likely contribute to inaccuracies in the Fed's loan loss projections.

¹⁷ The chart in Figure 7 includes only Category I through III banks, which report company-run results at least once every two years.

Moreover, the Federal Reserve's projected losses for fair value option (FVO) loans substantially exceed bank projections. This difference is solely due to the accounting classification of these loans as "fair value option" (FVO) rather than "held-for-investment" (HFI) simply by virtue of accounting classification. FVO loans are measured at fair value, with changes in fair value recognized in the income statement, whereas HFI loans are carried at amortized cost, with loan loss provisions based on expected credit losses. If the Federal Reserve were to apply industry average HFI loss rates to these FVO loan portfolios, the resulting projected losses would be reduced considerably, since the difference in loss rates is not due to any inherent variations in the risk or quality of the loans themselves.

The Reconsideration Process Is Inadequate

Finally, the reconsideration process for appealing the stress-test results is inadequate and lacks perceived independence and transparency. There is no dedicated independent group handling reconsiderations, and banks are granted little insight into the reasoning behind decisions, making it difficult to effectively appeal the SCB. Although there is an existing external advisory board for model validation, it appears to be largely ineffective.¹⁸ Since the SCB became effective in 2020, eight banks have submitted reconsideration requests. However, none of these requests has resulted in any meaningful adjustment to the appealing bank's SCB, raising questions about the effectiveness of the process. While the Fed has acknowledged concerns and indicated plans to review and modify their approach, there is little tangible evidence of changes. Furthermore, the lack of specified timelines for making modifications to the supervisory models creates uncertainty, impeding banks' capital planning efforts. Establishing a truly independent review mechanism with clear procedures and timelines is crucial.

On the Importance of Notice and Comment on the Scenarios Used to Calculate the Stress Capital Buffer

The Path of the Macroeconomic Variables Violates the Federal Reserve's Own Guidance

In 2014, the Federal Reserve released a policy statement outlining the Board's approach to designing macroeconomic scenarios for annual supervisory and company-run stress tests. The Board's Policy Statement on the Scenario Design Framework for Stress Testing states: "The Board intends to use a recession approach to develop the severely adverse scenario. In the recession approach, the Board will specify the future paths of variables to reflect conditions that characterize post-war U.S. recessions, generating either a typical or specific recreation of a post-war U.S. recession."

¹⁸ At a Brookings BPEA conference in March 2024, a well-known academic who was part of the Fed's model validation council suggested that the Fed's existing advisory board is ineffective: "I remember the failure of SVB a moment for personal reflection. . . . Fortunately I got off the model validation council before SVB happened. . . . I was reflecting on the fact that not once the issues of interest rate risk and run risk that led to SVB came up. . . ." (<https://www.youtube.com/watch?v=l2OWbKuWdFE>, 3:50:07)

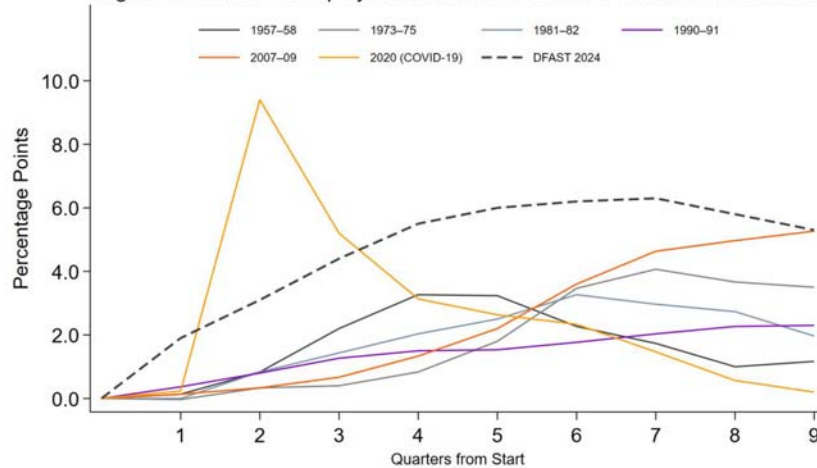
Regarding the unemployment rate, the policy statement emphasizes that the severely adverse scenario will reflect an unemployment rate observed in severe post-war U.S. recessions, measuring severity by the absolute level and relative increase in the unemployment rate. The Policy Statement identifies the severe recessions as those in 1957–1958, 1973–1975, 1981–1982 and 2007–2009. It also specifies that the unemployment rate should increase by either (1) 3 to 5 percent; or (2) the percentage required to reach a 10-percent unemployment rate, whichever is higher.

Following the trajectory of the unemployment rate, the Federal Reserve determines the path of the remaining macroeconomic and financial variables, based on the underlying structure of the scenario and consistent with the empirical relationships between those macroeconomic variables.

However, the 2024 stress scenarios do not align with historical experience or the Fed’s own guidance and should be substantially modified. First, the increase in the unemployment rate is substantially more sudden than experienced during the 2007–2009 Global Financial Crisis and any prior severe recession, with the exception of the COVID-19 pandemic-induced recession (Figure 8). This sudden jump in unemployment is expected to result in projected losses accumulating rapidly and in greater amounts over the stress-test planning horizon. Furthermore, although the increase to 10 percent is consistent with the Policy Statement, that requirement is inconsistent with all post-war recessions, save for the first quarter of the COVID-19 pandemic-induced recession of 2020.¹⁹

¹⁹ During the COVID-19 pandemic-induced recession, the unemployment rate reached 13 percent in the second quarter of 2020.

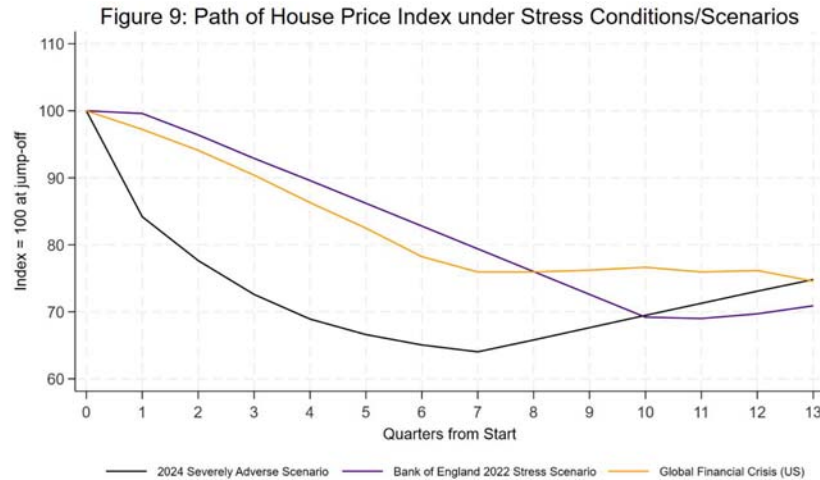
Figure 8: Path of Unemployment Rate under Stress Conditions/Scenarios



Source: Federal Reserve Board.

Second, several macroeconomic series in the 2024 scenario, such as the housing price index, commercial real estate prices and stock market drop, are significantly worse than in previous recessions, including the 2007–2009 GFC (Figure 9). For example, in the first quarter of the stress planning period alone (not annualized), the Fed projects a decline in the house price index greater than 15 percent, which is much more severe than during the 2007–2009 GFC. Although the differences in the peak decline between the Fed’s and Bank of England’s stress tests are less significant, the decline in the U.S. path is much more frontloaded and severe relative to historical experience and the U.K. stress tests. Given the U.S. housing market’s significant influence on the overall U.S. economy, such a steep decline in house prices leads to a sudden increase in unemployment and a steep drop in interest rates.²⁰

²⁰ The maximum increase in the unemployment rate is determined exogenously, but the duration and the “arc” of the change in the level of the unemployment rate are not. Instead, those dynamics are determined by the endogenous relationships between the macroeconomic variables.



In summary, the frontloading of the shocks to the macroeconomic variables is likely to cause simulated losses to accumulate rapidly and in greater amounts over the stress period. This results in a scenario much more severe than what characterizes any of the post-World War II recessions. Moreover, the steep drop in interest rates causes net interest income of banks to fall faster than it would otherwise do. This frontloading of shocks further leads to heightened stress capital buffer requirements for banks as a result of how that buffer is calculated. Granting the public an opportunity to comment on the scenarios would ensure the Board amends the macroeconomic scenarios to be consistent with their own policy statement that the macroeconomic scenario should create a typical or specific postwar recession. This would also increase transparency around the choice of the path of the macroeconomic variables.

The Public Does Not Know What Scenario the GMS Represents

The Federal Reserve introduced the GMS component as part of the CCAR process in late 2010, recognizing the inadequacy of the then-prevailing Basel I capital framework for market risk in capturing the risks encountered during the GFC. Although the subsequent implementation of Basel II.5 addressed many of the shortcomings in Basel I for market risk, it was not a perfect solution. Consequently, the incorporation of the GMS component in the 2011 CCAR exercise represented a necessary step taken by the Federal Reserve to ensure that banks maintained sufficient capital to withstand market risk. Since its inception, the GMS has consistently subjected banks with significant trading activity to an extreme stress test.

The underlying principle behind the determination of the GMS component is that during a financial crisis, markets can become illiquid for extended periods, during which banks are unable to hedge or close out positions. The changes in market prices during these periods of illiquidity determine the magnitude of a bank's losses on its positions. If the illiquidity horizon is calibrated based on a stressed historical period, using a longer horizon will result in a larger shock. Similarly, if the shocks are selected from a certain percentile of market movements, such as the 99th percentile, longer horizons will also produce larger shocks. Therefore, the selection of the period of illiquidity essentially determines the severity of the GMS component.

In the Supervisory Capital Assessment Program (SCAP) exercise, a precursor to the CCAR, the Federal Reserve adopted a transparent calibration strategy. They applied the actual shocks observed over the six-month period from June 30, 2008, to Dec. 31, 2008, to the trading portfolios of the five firms with trading assets exceeding \$100 billion. The same methodology was used for the 2011 market stress test. However, it is unclear which proposed or historical crisis period this six-month illiquidity assumption is meant to portray, since it is inconsistent with historical experience. For example, during the COVID-19 pandemic crisis in 2020, trading revenues increased substantially, contrary to what would be expected during a significant period of illiquidity. Despite these inconsistencies, the GMS component during 2010 and 2011 was conducted transparently.

However, the calibration of subsequent GMS tests became less transparent over time. In the early stages of the stress-testing program, the Federal Reserve indicated that the GMS shocks for more liquid trading assets were generally calibrated to movements in asset prices observed over various periods during the latter half of 2008, with less liquid trading assets receiving larger shocks. More recently, the Fed has refrained from characterizing the shocks in terms of the 2008 crisis. The Fed noted in the 2023 CCAR exercise, for example, that it defined the shocks according to time horizons that reflect the inability to sell or hedge exposures during a period of extreme market stress. However, the Fed has not presented specific information about these horizons or the methodology used to determine them.

The GMS component is also equally unclear as to what the scenario represents, since it assumes that three to nine months of stress losses occur instantaneously, without any opportunity for banks to rebalance or hedge their portfolios. This assumption is unrealistic, because certain shocks have an implausibly low probability of happening. Furthermore, the assumption that the largest counterparty will default is deemed unrealistically conservative. Banks have various risk-mitigating tools at their disposal to reduce the impact of a deterioration in a large counterparty's financial condition.²¹

Transparency vs. Gaming the Stress Tests

One of the main objections raised against addressing the concerns about the lack of transparency in the Fed's stress-testing framework is the fear of banks gaming the system. Proponents of this view frequently note that subjecting scenarios and models to notice and comment would give banks

²¹ For additional details, see SIFMA "Global Market Shock and Large Counterparty Default Study, Recommendations for Reforms Based on a Statistical Analysis of Stress Testing Scenarios," August 2019, available at <https://www.sifma.org/wp-content/uploads/2019/09/SIFMA-GMS-LCD-Study-FINAL.pdf>

multiple ways to lower their capital requirements. The proponents fear that if banks knew the scenarios in advance, they could make strategic adjustments to their portfolios that would appear more favorable under those specific scenarios. Furthermore, with full knowledge of the model details, the proponents are concerned that banks could exploit inaccuracies in the models by making targeted changes to their exposures.

The main assumption underlying this gaming risk theory is that Federal Reserve staff are capable of developing scenarios and models to estimate banks' capital requirements but are unable to make changes to the stress-testing framework that would effectively discourage banks from taking advantage of flaws in the supervisory models.

Addressing Concerns About Banks Gaming Stress-Test Scenarios

Let's start by examining the claim that by putting scenarios out for notice and comment, banks would be able to game the scenario by adjusting their balance sheets to reduce their capital requirements. This concern is more relevant for the types of exposures subject to the GMS component than the loans subject to the macroeconomic scenario, since the latter is dictated by banks' business models and market demand.

For their trading positions, the largest banks are required to factor in an instantaneous shock to their trading assets, reflecting interruptions in market liquidity. To discourage window dressing, the Fed chooses a different date each year to which the scenario applies, and this date is not known to banks in advance.²² If concerns persist about banks gaming market risk (for example, by buying insurance against large changes in asset prices), the Fed has several options:

- Use more than one scenario to estimate trading and counterparty shocks.
- Check for unusual changes in banks' exposures as the stress test date approaches by examining whether the bank put on any unusually large, temporary trades that could not be explained by client demand and that also reduced GMS losses. If so, the Fed could disallow the reduction of the unusual trade on the GMS losses.
- Place limits on or disallow certain hedges from the calculation of market risk gains and losses to reduce the incentives for window dressing.

These measures would eliminate the risk of banks gaming the stress test scenarios, while still allowing for public comment and greater transparency in the scenario design process.

Addressing Concerns About Banks Gaming Stress-Test Models

The risk of banks gaming the Federal Reserve's stress-test models is less significant compared with the potential for gaming stress scenarios. It is more challenging for banks to change their own balance sheets to try to take advantage of Fed models than of scenarios, and they have no incentive to

²² Currently, the "as of" date varies between October 1 of the calendar year preceding the year of the stress test to March 1 of the calendar year of the stress test.

game models that overestimate the default risk of their loans or underestimate their revenues. Banks would only be motivated to game models that underestimate risk or overestimate revenues.

The most effective way for the Fed to eliminate the risk of gaming of the models is to make them more accurate. If the models are found to be inaccurate, they should be revised to improve accuracy, which would minimize banks' incentives to exploit any lack of granularity in the models for their own benefit. Subjecting the models to notice and comment would allow for extensive review by experts, academics, and banks, leading to increased model accuracy. This widespread review would also help identify any instances where the Fed's models underestimate risk. Improving model accuracy reduces rather than increases the risk of gaming.

Over the past decade, the Fed's severely adverse scenario has remained relatively stable, with occasional changes in the severity of commercial real estate, house prices and long-term interest rates. Consequently, banks have little further incentive to adjust their portfolios beyond their current practices. It is well documented that banks have significantly reduced their exposures to small and middle-market business loans and residential mortgage loans in response to stress tests and other post-crisis regulations. However, this is a natural response to the increased cost of funding those loans. Regarding market risk, the issue of banks exploiting inaccuracies in supervisory models does not arise, since the projections of trading and counterparty losses are generated using banks' own models.

In general, the notion that the details of the stress tests cannot be made public because those subject to the tests might align their behavior with its rules and standards is an untenable premise. To adapt to regulatory imperatives is not gaming or reverse engineering; it is obedience and compliance. It is entirely appropriate for firms to make capital allocation and other business decisions based on how certain exposures or activities are treated in stress tests, which offer a view into the Federal Reserve's beliefs on the riskiness of those exposures or activities. Indeed, the risk weights assigned by the banking agencies to assets and investments under the regulatory capital rules also influence the business decisions of banking organizations. Yet no one would argue that this fact should allow the banking agencies to withhold those risk weights from the public.

Legal Implications of Lack of Transparency in the Stress Tests

The current stress-testing framework is legally vulnerable in several respects. Note that under the Administrative Procedure Act, both the scenarios and the models are best viewed as legislative rules (or components of these rules) that must be adopted through notice and comment and, once finalized, published in the *Federal Register*.²³ The scenarios and the models that compose the stress-testing framework we have discussed have the force and effect of law because they change a bank's minimum capital requirements. Changes to the scenarios and models affect the stress-test results, which in turn automatically raise or lower a bank's mandatory stress capital buffer. The stress capital buffer imposes

²³ The Administrative Procedure Act defines "rule" broadly to include "the whole or part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or describing the organization, procedure, or practice requirements of an agency." 5 U.S.C. § 551(4). The Federal Reserve Board's stress-test scenarios and models apply generally to banks, and they have future consequences that implement "law or policy" concerning capital requirements.

“severely adverse” scenarios, as well as other scenarios chosen by the Fed, on an annual basis prior to applying them in the supervisory stress test. The Fed then feeds bank financial information, together with its scenario assumptions into various models of its own creation to determine how the bank would fare under the specified stress conditions. These models then project the bank’s financial statement information over several quarters, including balance sheet items, income and expense components, investment portfolio performance, and, of course, risk-weighted assets. Armed with its modeled outputs, the Fed then mechanically sets the stress capital buffer and may limit the bank’s planned capital distributions.¹¹

Legal Vulnerabilities

The Fed’s continuing failure to seek public comment on its stress test models and scenarios and, in the case of the former, even disclose them at all raises significant concerns under basic principles of administrative law.¹² First, the Administrative Procedure Act requires agencies to pursue legislative rules through notice-and-comment rulemaking.¹³ But the Fed has not sought public comment on its models and scenarios. In the case of the stress capital buffer and planned capital distributions, its related rulemakings are, at best, incomplete, omitting the most critical components. These omissions are particularly egregious since they not only inform but dictate what is arguably the most important regulatory requirement on banks – their capital levels. Nor is this an area of particular legal ambiguity or first impression. Courts have repeatedly held that models treated by agencies as binding must go through public comment.¹⁴ Second, because the Fed’s models and assumptions are the basis for its actions (*i.e.*, stress capital buffers and limits

scenario, are directly binding on banks’ capital requirements, while others, such as last year’s “exploratory market shock,” are not. See Federal Reserve, “Federal Reserve Board releases hypothetical scenarios for its 2023 bank stress tests” (Feb. 9, 2023), available at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20230209a.htm?utm_source=substack&utm_medium=email.

¹¹ See 12 C.F.R. § 225.8; 12 C.F.R. § 217.11.

¹² The Fed does disclose its scenarios, but does not seek public comment on them. See, *e.g.*, Federal Reserve, “Federal Reserve Board releases the hypothetical scenarios for its annual stress test” (Feb. 15, 2024), available at <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20240215a.htm>. The Fed also provides some information on its models, but not the models themselves. See, *e.g.*, Federal Reserve, “2023 Supervisory Stress Test Methodology - June 2023” (last updated Aug. 1, 2023), available at <https://www.federalreserve.gov/publications/2023-june-supervisory-stress-test-methodology-preface.htm>.

¹³ The APA contains exceptions to its notice-and-comment procedures for “interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice” and “for good cause,” but none seems relevant here, and the Fed has not suggested any of these exceptions apply. 5 U.S.C. §§ 553(b)(A), (B). See also Bank Policy Institute and American Bankers Association, “Petition for Rulemaking and FOIA Request Concerning Models and Stress Scenarios Used to Determine Stress Capital Buffer Requirements” (July 24, 2023), available at <https://bpi.com/bpi-and-aba-seek-transparency-around-fed-supervisory-models-and-stress-scenarios/>.

¹⁴ See, *e.g.*, *Sierra Club v. Costle*, 657 F.2d 298, 334 (D.C. Cir. 1981); *American Radio Relay League, Inc. v. F.C.C.*, 524 F.3d 227, 236 (D.C. Cir. 2008); *McLouth Steel Products Corp. v. Thomas*, 838 F.2d 1317, 1320-22 (D.C. Cir. 1988); *U.S. Air Tour Ass’n v. F.A.A.*, 298 F.3d 997, 1008 (D.C. Cir. 2002); *Owner-Operator Indep. Drivers Ass’n, Inc. v. Fed. Motor Carrier Safety Admin.*, 494 F.3d 188, 202 (D.C. Cir. 2007). Nor can there be any doubt that the Fed treats its models as binding: “[t]he stress capital buffer requirement ... is determined from the stress test results.” Federal Reserve, “Federal Reserve Board announces the individual capital requirements for all large banks, effective on October 1” (July 27, 2023), available at <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20230727b.htm>.

Chairman BARR. Thank you.

Now, Mr. Gould, you are now recognized for 5 minutes.

STATEMENT OF JONATHAN GOULD, PARTNER, JONES DAY

Mr. GOULD. Chairman Barr, Ranking Member Foster, and members of the subcommittee, thank you for the opportunity to discuss stress testing.

My testimony is my own. I am speaking today solely in my personal capacity. I am not speaking on behalf of any clients or my law firm.

Stress testing has transformed bank capital from a backward-looking static concept into a forward-looking dynamic requirement but its current integration into the overall capital framework rests uneasily with the requirements of administrative law and agency overemphasis on regulatory capital as the primary supervisory tool risks marginalizing the important role of examination in ensuring the safety and soundness of banks.

The modern form of supervisory stress testing traces its roots to the 2008 financial crisis. To restore confidence in the health of the largest bank holding companies, the Federal Government designed and administered the Supervisory Capital Assessment Program, or SCAP. Under this program, regulators assessed whether banks would remain well-capitalized in an adverse macroeconomic scenario. The SCAP was widely viewed as a success, but like many crisis-era actions, legal authorities and process were not scrutinized too closely given the exigencies of the moment.

Congress subsequently endorsed and ratified the concept of supervisory stress testing in the Dodd-Frank Act the following year but like other extraordinary programs borne of the crisis, supervisory stress testing has evolved into something more. As the Fed embarked on the creation of its Comprehensive Capital Adequacy Review, or CCAR, it melded regulatory capital, stress testing, and capital planning into an omnibus framework, part supervisory exercise and part regulatory requirement, making liberal use of guidance to knit the new edifice together.

Supervisory stress testing became a cornerstone of a new approach to regulation and supervision of the Nation's largest financial institutions. In and of itself, supervisory stress testing would be merely hortatory and, at critical times, illuminating for regulators, markets, and the banks themselves, but under the Fed's hybrid framework, supervisory stress testing is also used to limit capital distributions and has now become the means for setting binding capital requirements for large banks through the introduction of the stress capital buffer.

The Fed's continuing failure to seek public comment on its stress models and scenarios and, in the case of the former, even disclose them at all raises significant concerns under basic principles of administrative law. First, the Administrative Procedure Act requires agencies to pursue legislative rules through notice and comment rulemaking but the Fed has not sought public comment on its models and scenarios. In the case of the stressed capital buffer and planned capital distributions, its related rulemakings are, at best, incomplete, omitting the most critical components. These omissions are particularly egregious since they not only inform but dictate

what is arguably the most important regulatory requirement on banks—their capital levels. Nor is this an area of legal ambiguity or first impression. Courts have repeatedly held that models treated by agencies as binding must go through public comment.

Second, because the Fed's models and assumptions are the basis for its actions and it has not disclosed its models, it is unable to explain its decisionmaking process. As a result, its actions appear arbitrary and capricious.

At its core, the Fed has created a framework that allows it discretion to set capital levels for banks through a scenario choice and model design with limited accountability. Its only constraint is the models themselves, but the public lacks visibility into these models as well as their design, back-testing and revision. Put another way, the Fed's capital stress buffer is like a highway with an unposted speed limit that changes on a regular basis, and one only learns the speed limit after being pulled over. Whatever the value of stress testing, its utility is no substitute for its legality.

Supervisory stress testing and the capital edifice it supports are the paradigmatic post-2008 reforms. This new approach to regulation and supervision is too often marked by its complexity, opacity, and only episodic adherence to basic principles of administrative law. As Federal banking agencies appear poised to double down in these and other areas, Congress should ensure that agencies abide by applicable legal requirements and assess the effectiveness and costs of current post-2008 regulatory reforms before expanding them.

Thank you again for the opportunity to testify. I look forward to your questions.

[The prepared statement of Mr. Gould follows:]

Testimony of Jonathan V. Gould
Partner, Jones Day
Before the U.S. House Financial Services Subcommittee on
Financial Institutions and Monetary Policy
hearing on
“Stress Testing: What’s Inside the Black Box?”

June 26, 2024

Chairman Barr, Ranking Member Foster and Members of the Subcommittee: thank you for the opportunity to discuss stress testing. My testimony is my own. I am speaking today solely in my personal capacity; I am not speaking on behalf of any clients or my law firm.

Stress testing has transformed bank capital from a backwards-looking, static concept into a forward-looking, dynamic requirement. But its current integration into the overall capital framework rests uneasily with the requirements of administrative law. And agency *over*-emphasis on regulatory capital as the primary supervisory tool risks marginalizing the important role of examination in ensuring the safety and soundness of banks.

Origins and Evolution of Supervisory Stress Testing

The modern form of supervisory stress testing traces its roots to the 2008 financial crisis. To restore confidence in the health of the largest bank holding companies, the federal government designed and administered the Supervisory Capital Assessment Program or SCAP.¹ Under this program, regulators assessed whether banks would remain well-capitalized in an adverse macroeconomic scenario. The SCAP was widely viewed as a success. But, like many crisis-era actions, legal authorities and process were not scrutinized too closely given the exigencies of the moment.

Congress subsequently endorsed and ratified the concept of supervisory stress testing in the Dodd-Frank Act the following year. That law required the Federal Reserve to conduct stress tests of large bank holding companies to determine “whether such companies have the capital ... necessary to absorb losses as a result of adverse economic conditions.”² Congress further required covered bank holding companies to “update their resolution plans ... based on the results of the [stress test] analyses.”³ There is no explicit requirement that these supervisory

¹ See Federal Reserve, “The Supervisory Capital Assessment Program: Design and Implementation” (April 24, 2009), available at <https://www.federalreserve.gov/bankinfo/bcreg20090424a1.pdf>. See also Federal Reserve Bank of New York, “The Supervisory Capital Assessment Program: Motivation and Results of the Bank Stress Test” (Jan. 14, 2010), available at <https://www.newyorkfed.org/medialibrary/media/education/pdf/Hirtle.pdf>.

² 12 U.S.C. § 5365(i)(1)(A). The Dodd-Frank Act also required company stress tests, but those are less relevant in today’s context.

³ 12 U.S.C. § 5365(i)(1)(B)(iv).

stress tests supplement binding regulatory capital requirements or limit capital distributions. Like the SCAP itself, these supervisory stress tests were designed to provide transparency to the market. To that end, Congress required the Fed to publish a summary of the results of its stress tests.⁴

But, like other extraordinary programs borne of the crisis,⁵ supervisory stress testing has evolved into something more. As the Fed embarked on the creation of its Comprehensive Capital Adequacy Review or CCAR,⁶ it melded regulatory capital, stress testing, and capital planning into an omnibus framework – part supervisory exercise and part regulatory requirement, making liberal use of guidance to knit the new edifice together. Supervisory stress testing became a “cornerstone of a new approach to regulation and supervision of the nation’s largest financial institutions.”⁷ In and of itself supervisory stress testing would be merely hortatory and, at critical times, illuminating for regulators, markets and the banks themselves. For example, supervisory stress testing during the COVID event provided the Fed and other regulators with valuable insights into bank exposures and increased public confidence in the banking system, just as it had done in 2009 with the original SCAP.⁸ But, under the Fed’s hybrid framework, supervisory stress testing is also used to limit capital distributions and has now become the means for setting binding capital requirements for large banks through the introduction of the stress capital buffer.⁹

Components of Supervisory Stress Testing

Supervisory stress testing is a subjective exercise in that its outputs are dependent upon judgment calls made by the Fed and reflected in its scenario design, financial models and related assumptions. As directed by Congress, the Fed must specify at least two different sets of conditions under which stress tests are conducted.¹⁰ The Fed announces these “baseline” and

⁴ See 12 U.S.C. § 5365(i)(1)(B)(v).

⁵ Resolution planning has, for example, evolved from a targeted requirement for bank holding companies under the Dodd-Frank Act into a web of regulations and effectively binding guidance, and backdoor liquidity and capital requirements (driven by new modeling mandates), among other things, which may alter the Congressional allocation of agency responsibilities as well as the balance between business as usual operations and failure planning in counterproductive ways.

⁶ See, e.g., Federal Reserve, “Dodd-Frank Act Stress Tests 2023” (last updated July 27, 2023), available at <https://www.federalreserve.gov/supervisionreg/dfa-stress-tests-2023.htm>; Federal Reserve, “Comprehensive Capital and Analysis Review and Dodd-Frank Act Stress Tests: Questions and Answers” (last updated April 3, 2024), available at <https://www.federalreserve.gov/publications/ccar-qas/comprehensive-capital-analysis-and-review-questions-and-answers.htm>.

⁷ Daniel K. Tarullo, “Stress Testing after Five Years” (June 25, 2014), available at <https://www.federalreserve.gov/newsevents/speech/tarullo20140625a.htm>.

⁸ See Randal K. Quarles, “Themistocles and the Mathematicians: The Role of Stress Testing” (Feb. 25, 2021), available at <https://www.federalreserve.gov/newsevents/speech/quarles20210225a.htm>; Randal K. Quarles, “The Adaptability of Stress Testing” (June 19, 2020), available at <https://www.federalreserve.gov/newsevents/speech/quarles20200619a.htm>.

⁹ See 12 C.F.R. § 225.8; 12 C.F.R. § 217.11.

¹⁰ See 12 U.S.C. § 5365(i)(1)(B)(i). But note that the Fed regularly introduces additional scenarios beyond these baseline and severely adverse conditions. Some of the additional scenarios, like the global market shock

“severely adverse” scenarios, as well as other scenarios chosen by the Fed, on an annual basis prior to applying them in the supervisory stress test. The Fed then feeds bank financial information, together with its scenario assumptions into various models of its own creation to determine how the bank would fare under the specified stress conditions. These models then project the bank’s financial statement information over several quarters, including balance sheet items, income and expense components, investment portfolio performance, and, of course, risk-weighted assets. Armed with its modeled outputs, the Fed then mechanically sets the stress capital buffer and may limit the bank’s planned capital distributions.¹¹

Legal Vulnerabilities

The Fed’s continuing failure to seek public comment on its stress test models and scenarios and, in the case of the former, even disclose them at all raises significant concerns under basic principles of administrative law.¹² First, the Administrative Procedure Act requires agencies to pursue legislative rules through notice-and-comment rulemaking.¹³ But the Fed has not sought public comment on its models and scenarios. In the case of the stress capital buffer and planned capital distributions, its related rulemakings are, at best, incomplete, omitting the most critical components. These omissions are particularly egregious since they not only inform but dictate what is arguably the most important regulatory requirement on banks – their capital levels. Nor is this an area of particular legal ambiguity or first impression. Courts have repeatedly held that models treated by agencies as binding must go through public comment.¹⁴ Second, because the Fed’s models and assumptions are the basis for its actions (*i.e.*, stress capital buffers and limits

scenario, are directly binding on banks’ capital requirements, while others, such as last year’s “exploratory market shock,” are not. See Federal Reserve, “Federal Reserve Board releases hypothetical scenarios for its 2023 bank stress tests” (Feb. 9, 2023), available at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20230209a.htm?utm_source=substack&utm_medium=email.

¹¹ See 12 C.F.R. § 225.8; 12 C.F.R. § 217.11.

¹² The Fed does disclose its scenarios, but does not seek public comment on them. See, *e.g.*, Federal Reserve, “Federal Reserve Board releases the hypothetical scenarios for its annual stress test” (Feb. 15, 2024), available at <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20240215a.htm>. The Fed also provides some information on its models, but not the models themselves. See, *e.g.*, Federal Reserve, “2023 Supervisory Stress Test Methodology - June 2023” (last updated Aug. 1, 2023), available at <https://www.federalreserve.gov/publications/2023-june-supervisory-stress-test-methodology-preface.htm>.

¹³ The APA contains exceptions to its notice-and-comment procedures for “interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice” and “for good cause,” but none seems relevant here, and the Fed has not suggested any of these exceptions apply. 5 U.S.C. §§ 553(b)(A), (B). See also Bank Policy Institute and American Bankers Association, “Petition for Rulemaking and FOIA Request Concerning Models and Stress Scenarios Used to Determine Stress Capital Buffer Requirements” (July 24, 2023), available at <https://bpi.com/bpi-and-aba-seek-transparency-around-fed-supervisory-models-and-stress-scenarios/>.

¹⁴ See, *e.g.*, *Sierra Club v. Costle*, 657 F.2d 298, 334 (D.C. Cir. 1981); *American Radio Relay League, Inc. v. F.C.C.*, 524 F.3d 227, 236 (D.C. Cir. 2008); *McLouth Steel Products Corp. v. Thomas*, 838 F.2d 1317, 1320-22 (D.C. Cir. 1988); *U.S. Air Tour Ass’n v. F.A.A.*, 298 F.3d 997, 1008 (D.C. Cir. 2002); *Owner-Operator Indep. Drivers Ass’n, Inc. v. Fed. Motor Carrier Safety Admin.*, 494 F.3d 188, 202 (D.C. Cir. 2007). Nor can there be any doubt that the Fed treats its models as binding: “[t]he stress capital buffer requirement ... is determined from the stress test results.” Federal Reserve, “Federal Reserve Board announces the individual capital requirements for all large banks, effective on October 1” (July 27, 2023), available at <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20230727b.htm>.

on planned capital distributions), and it has not disclosed its models, it is unable to explain its decision-making process. As a result, its actions appear arbitrary and capricious.

At its core, the Fed has created a framework that allows it discretion to set capital levels for banks through scenario choice and model design with limited accountability.¹⁵ Its only constraint is the models themselves, but the public lacks visibility into these models as well as their design, back-testing and revision.¹⁶ Put another way, the Fed's stress capital buffer is like a highway with an unposted speed limit that changes on a regular basis. And one only learns the speed limit after being pulled over. Whatever the value of stress testing, its utility is no substitute for its legality.

* * *

Supervisory stress testing and the capital edifice it supports are the paradigmatic post-2008 reforms. But this "new approach to regulation and supervision" is too often marked by its complexity, opacity and only episodic adherence to basic principles of administrative law. Resolution planning, another feature of the post-2008 landscape, shares many of the same legally-suspect characteristics of capital regulation, including the use of binding guidance. As Federal banking agencies appear poised to double-down in these and other areas, Congress should ensure the agencies abide by applicable legal requirements and assess the effectiveness and costs of current post-2008 regulatory reforms before expanding them.

Thank you again for the opportunity to testify. I look forward to your questions.

¹⁵ There is little, if any, evidence that the reconsideration process for appealing stress test results or stress capital buffers provides any meaningful check on the Fed's discretion.

¹⁶ A model of one's own design that is not even disclosed does not serve as a constraint on an agency's range of action. The agency can manipulate or modify the model, much less set the scenario inputs, to arrive at any outcome it seeks. By way of contrast, the Fed has articulated extensive supervisory expectations for the risk management, governance and validation of all models utilized by the banks it regulates. *See, e.g.*, Federal Reserve, "Supervisory Guidance on Model Risk Management" (April 4, 2011), available at <https://www.federalreserve.gov/supervisionreg/srletters/sr1107a1.pdf>.

Chairman BARR. Thank you for your testimony.

Now, Mr. Feldberg, you are now recognized for 5 minutes.

**STATEMENT OF GREG FELDBERG, RESEARCH DIRECTOR,
YALE PROGRAM ON FINANCIAL STABILITY, AND RESEARCH
SCHOLAR AND LECTURER, YALE SCHOOL OF MANAGEMENT**

Mr. FELDBERG. Chairman Barr, Ranking Member Foster, members of the subcommittee, thank you for the opportunity to testify.

Stress tests have played an important role in our financial history. Along with two of my fellow panelists today, I was involved in the first stress test on the staff of the Federal Reserve, and I think we are all very proud of how that turned out in 2009.

I would like to make four points about the state of stress testing today. First, supervisory stress tests should be countercyclical. Stress tests should help supervisors keep their guard up during those long periods of financial calm when the possibility of a banking crisis and its associated costs appear remote. In good times, stress tests should be tougher, and we should resist the inevitable pressures to reduce the rigor of the process.

Second, stress tests should use multiple scenarios. Financial crises tend to come from unexpected places. The Bank of England and European Central Bank have long used “exploratory” scenarios every other year. They are not binding, they simply help the understanding of regulators and banking system about the risks out there. For the first time this year, the Federal Reserve has introduced nonbinding exploratory scenarios, and I welcome that development.

In short, the U.S. innovated the use of supervisory stress tests during the crisis in 2008. Early efforts in other jurisdictions did not measure up as they learned in other jurisdictions to ours, but in later years the innovation has been elsewhere in other countries.

Third, stress tests are part of a broader regulatory and supervisory toolkit. Some have argued that the Fed’s stress test should have included Silicon Valley Bank, the first large bank to fail last year in the rising interest rate scenario. I am not sure that would have worked. It is possible that rising rates could have boosted net interest income in the test, making up for the decline in asset values.

The International Monetary Fund actually made that very point in 2020 in commenting to the U.S. about its financial stability system. The International Monetary Fund (IMF) recommended instead that the U.S. implement an existing Basel standard for interest rate risk management with quantitative thresholds, as many other countries have done. I made that argument last year in a blog.

There is no doubt that Silicon Valley would have failed on the Basel interest rate risk test.

The lesson is that supervisors need many tools in their toolkit, a lesson was, again—that was again driven home recently when supervisors rejected several big banks’ resolution plans.

I guess the main topic of this hearing, and fourth, that transparency can be a double-edged sword. As I noted in a paper in 2019, the goal should be to reveal just enough about the Fed’s methods to help banks develop their models and manage their

risks but not so much that it becomes a predictable compliance exercise, which was what it really would become if grandma showed you a recipe like Sean said.

I will make two observations about that tradeoff. First, we are already revealing a lot to the regulated industry, which may allow them to merely optimize the test. After what you have heard today, you may be surprised at how much we reveal in the U.S. I refer everyone on the committee to review the Fed's public methodology and scenario documents. You might be surprised at the level of detail after what you have heard today. You will see 50 pages describing the models, including descriptions of inputs and equations, 26 pages on loss rates. I had a colleague on my team look at other jurisdictions to see what they revealed. The U.S. was far ahead of other countries, except Bank of England, to some extent and he could not find another country that revealed its loss rates.

So you might wonder what it is. We would like to be more—we are hearing we would like to be more transparent about from the folks here today.

Sean Campbell, his testimony, his written testimony was very helpful in understanding what it is we are being asked of and his testimony is fairly long. I think the main thing he is asking for is, gosh, we do get a lot of information about the models, we do get a lot of information about loss rates, but we are missing the parameters. Just tell us the parameters and we will really be able to make grandma's cake. I think at some point that becomes no longer a supervisory test but something that lacks any kind of impact.

We have a good example of what happens when you put the parameters of a stress test out for public comment like what is being proposed today. The supervisor of the government-sponsored enterprises, Freddie Mac and Freddie—Fannie Mae and Freddie Mac, were subject to congressionally mandated stress tests from 2002 to 2008, which today did not detect any risks. In fact, they showed strong compliance. Why? It turns out the supervisor, Office of Federal Housing Enterprise Oversight (OFHEO), never tweaked its models despite growing obvious risk in the mortgage market. One paper found that the requirements to publish all stress scenarios, empirical specifications, and parameter estimates in the Federal Register meant that would have been administratively cumbersome to make any material changes to the underlying models.

In short, supervisory stress tests are very important for bank risk management. I am concerned, as are many others, that the tests have become too routinized and that further disclosures from regulators will simply make them more so.

[The prepared statement of Mr. Feldberg follows:]

Written Testimony of Greg Feldberg, Research Director, Yale Program on Financial Stability
“Stress Testing: What’s Inside the Black Box?”
U.S. House Subcommittee on Financial Institutions and Monetary Policy
June 26, 2024

Chairman Barr, Ranking Member Foster, Members of the Subcommittee, thank you for the opportunity to testify today. Stress tests have played an important role in our country’s financial history. In 2009, Federal Reserve supervisors used the Supervisory Capital Assessment Program to evaluate how well the largest banks would fare if the Global Financial Crisis got even worse. The results forced a handful of banks to raise capital. Perhaps more importantly, publication of the results assuaged the worst fears of market participants. A couple years later, Congress and regulators had created a mandate of regular stress tests for the largest financial institutions, and stress testing had become a central part of bank oversight across the world.

At the time of the crisis-era stress test, I was a Federal Reserve analyst covering several banks subject to the stress test. Two of my fellow panelists today were also involved. I think they would agree with me that the 2009 stress test was a revelation and a revolution in the practice of banking supervision. With mandatory stress testing, bank supervisors supplemented our traditional point-in-time analysis of balance sheets and risk-management practices with a forward-looking, analytical approach to bank risks. An all-around good thing.

I would like to make four points about the state of U.S. stress testing today.

- Supervisory stress tests should be countercyclical.
- Stress tests should use multiple scenarios.
- Stress tests are part of a broader regulatory and supervisory toolkit.
- Transparency can be a double-edged sword.

First, supervisory stress tests should be countercyclical.

In a 2019 paper, my coauthor and I discussed the difference between stress testing in “war time,” during a financial crisis, and “peace time,” when conditions have eased.¹ At the time, we observed that stress tests that influence capital requirements will inevitably introduce some volatility into capital planning. And bankers will always raise that concern. But today, five years later, after various changes to the tests and a significant increase in disclosures, we face the opposite risk—that the stress tests have become too predictable.

Regulators must keep their guard up during peace time—during those long periods of financial calm when the possibility of a banking crisis and its associated costs appear remote. Stress scenarios can appear fanciful to bankers and regulators whose careers may have begun some time since the last crisis—or, more cynically, whose remuneration is linked to short-term profit

¹ Greg Feldberg and Andrew Metrick, “Stress Tests and Policy,” *Journal of Financial Crises*, Yale Program on Financial Stability, Vol. 3 (1), pp. 1-19, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3424327.

metrics as opposed to long-run viability and hedging tail risks. To be effective, stress test scenarios must be sufficiently rigorous and they must have countercyclical elements.

Certain aspects of our political process tend to favor procyclicality, the letting down of our guard during peace time. When bad things happen, we tighten rules, we strengthen risk monitoring, we chastise supervisors. But over some years, economies recover, financial metrics recover, people in responsibility turn over. The regulated are empowered and voices of caution are dimmed. There is the risk that stress testing could become less rigorous over time, or the risk that the rigor of stress testing could vary from one administration to the next. That's what happened in 2018. With regulatory tailoring, the number of banks subject to the stress tests was significantly reduced. Other aspects of the process were also eased.

As an aside, regulatory tailoring of course eased a number of other prudential standards for large banks, not just stress tests. Along those lines, I published a series of blogs last year analyzing the question: Did regulatory tailoring have anything to do with the failure of Silicon Valley Bank, or SVB, the first large bank to fail last year, or the costs of that failure? The answer was mixed. For example, we concluded that SVB would likely have chosen a different funding strategy, or held different liquid assets, if it had been subject to the liquidity coverage ratio.² This could have made a difference. We also noted that the Federal Deposit Insurance Corporation could have saved billions of dollars if SVB and other failed large banks had held more senior debt that could have borne losses under a standard that regulators then applied only to larger banks.³

It's probably no coincidence that the global financial crisis of 2008-09 is now around the same distance from us as the savings and loan crisis was in the mid-2000s, the last time there was so much pressure to ease bank regulation.

Second, stress tests should use multiple scenarios.

Financial crises tend to emanate from unexpected places. Many have argued for multiple scenarios in Federal Reserve stress tests. My colleagues and I at the Office of Financial Research made this suggestion a decade ago.⁴ When the Federal Reserve sought feedback on its Comprehensive Capital Analysis and Review (CCAR) program in 2018, we argued for

² Greg Feldberg, "Lessons from Applying the Liquidity Coverage Ratio to Silicon Valley Bank," March 27, 2023, available at <https://som.yale.edu/story/2023/lessons-applying-liquidity-coverage-ratio-silicon-valley-bank>.

³ Greg Feldberg and Carey Mott, "The 2023 Banking Crisis: Lessons about Bail-in," July 6, 2023, available at <https://som.yale.edu/story/2023/2023-banking-crisis-lessons-about-bail>.

⁴ Rick Bookstaber, Jill Cetina, Greg Feldberg, Mark Flood, and Paul Glasserman, "Stress Tests to Promote Financial Stability: Assessing Progress and Looking to the Future," *Journal of Risk Management in Financial Institutions*, Vol. 7 (1), Winter 2013/14, pp. 16-25, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2438285.

improvements to the supervisory stress tests to evaluate the interaction between funding and solvency and to address interest rate risk.⁵

Other advanced-economy supervisors have introduced diverse scenarios and methodologies. The Bank of England and European Central Bank conduct “exploratory” scenarios every other year. This year, the BoE put the annual stress test on hold in order to conduct a desk-based exercise with multiple scenarios and a broader test involving both banks and nonbanks.⁶ This year, the ECB is evaluating the impact of a cyber attack. In contrast, the core scenario structure in the Federal Reserve’s stress testing has remained little changed after a full decade of use. However, this year, for the first time, the Federal Reserve has also introduced non-binding exploratory scenarios, as well as a climate scenario analysis.⁷

In short, the US innovated the use of supervisory stress tests during the 2008-09 crisis. Early efforts in other jurisdictions didn’t measure up to ours. But in later years the innovation was elsewhere, as ours until recently remained static.

Stress tests are part of a broader regulatory and supervisory toolkit.

Of course, stress tests aren’t the right tool for every risk. Some have argued the Federal Reserve should have included SVB in the stress test; and that the stress test should have included a rising interest-rate scenario, since that’s what sank SVB. That probably would have been a useful exercise. Still, it might not have done the trick. Francisco Covas of the Bank Policy Institute, who is here today, has done analysis showing that subjecting SVB to a stress test with an interest-rate scenario would not necessarily have resulted in greater capital for SVB. Rather, he says, rising rates would have boosted SVB’s net interest income, making up to some extent for the decline in asset values.⁸

Francisco may have been talking his book, but he has a point. In 2020, the International Monetary Fund made that same point—that stress tests may not be the best approach to interest-rate risk—in its periodic review of US financial stability oversight.⁹ Instead, the IMF has

⁵ Jill Cetina, “Incorporating Liquidity Shocks and Feedbacks in Bank Stress Tests,” Office of Financial Research Working Paper 2015-06, July 22, 2015, available at <https://www.financialresearch.gov/briefs/files/OFRbr-2015-06-Incorporating-Liquidity-Shocks-and-Feedbacks-in-Bank-Stress-Tests.pdf>.

⁶ Bank of England, “Record of Financial Policy Committee meetings on Sept 26 and Oct 5 2023,” pp. 17-18, available at <https://www.bankofengland.co.uk/-/media/boe/files/financial-policy-summary-and-record/2023/fpc-summary-and-record-october-2023.pdf>.

⁷ Michael Barr, “Multiple Scenarios in Stress Testing,” October 19, 2023, available at <https://www.federalreserve.gov/newsevents/speech/barr20231019a.htm>; Dan Tarullo, “Reconsidering Regulatory Uses of Stress Testing,” Brookings, Hutchins Center Working Paper #92, May 2024, available at [Reconsidering Regulatory Uses of Stress Testing](https://www.brookings.edu/wp-content/uploads/2024/05/Reconsidering-Regulatory-Uses-of-Stress-Testing.pdf).

⁸ Francisco Covas, “How Did Regulatory Tailoring Affect SVB’s Capital Requirements?,” Bank Policy Institute, May 3, 2023, available at <https://bpi.com/how-did-regulatory-tailoring-affect-svbs-capital-requirements/>.

⁹ International Monetary Fund, “United States: Financial Sector Assessment Program—Technical Note on Banking Supervision and Regulation,” IMF Country Report No. 20/248, August 2020, pages 37-38, available at <https://www.imf.org/en/Publications/CR/Issues/2020/08/07/United-States-Financial-Sector-Assessment-Program-Technical-Note-Banking-Supervision-and-49657>.

argued repeatedly for the Fed to implement a Basel standard for the management of interest-rate risk in the banking book (IRR-BB) with quantitative thresholds, as many other countries have done. I made a similar argument in a blog last year.¹⁰

US regulators initially worked with the Basel Committee on Banking Supervision, a global group of supervisors, to develop the IRR-BB standard, ironically at the behest of Congress in the FDIC Improvement Act of 1991 after the U.S. savings and loan crisis. The committee agreed on the standard in 2004 and made it more rigorous in 2016, when supervisors globally noted that the very low interest-rate environment at the time wouldn't last forever. Yet, US financial regulators never implemented the standard. Thus we find our banking sector again with large unrealized securities losses relative to GDP. There's no doubt that SVB, First Republic, and other failed banks would have been out of compliance with the Basel interest-rate risk standard, some catastrophically, had US regulators implemented the standard in the years leading up to March 2023 (see Appendix 1, *The Basel IRR-BB standard and Silicon Valley Bank*).

The lesson is that supervisors need many tools in their toolkit. A lesson that was again driven home recently when supervisors rejected several big banks' resolution plans.

Fourth, transparency can be a double-edged sword.

Too much transparency can be a bad thing. My colleague and I wrote a little about that in our 2019 paper. We noted first that there are two types of transparency: transparency of outputs—how did each bank do in the stress scenarios?—and transparency of inputs—what models did the Fed use? For both, our message was that transparency in stress testing, as in banking supervision generally, is a double-edged sword. For outputs, the goal would be to reveal just enough about banks to help market participants evaluate their risks. But not so much as to undermine confidence when it should not be undermined, and especially not to create widespread panic. For inputs, the goal would be to reveal just enough to help banks develop their models and manage their risks, and to inform regulators and markets about bank resiliency. But not so much that stress tests become a predictable “compliance exercise” or become easy to game.

I'll make two observations about those tradeoffs.

First, US supervisors are already revealing a lot about the stress test methodologies to the regulated industry, which may allow banks to merely optimize to the stress test rather than build resiliency. The Federal Reserve's disclosures about its models and methods, along with

¹⁰ Greg Feldberg, “US Banks' Interest-Rate Risk Reporting and Regulation: A Comparative Context,” April 26, 2023, available at <https://som.yale.edu/story/2023/us-banks-interest-rate-risk-reporting-and-regulation-comparative-context>.

the Bank of England's, are far more transparent than other authorities across the world (see Appendix 2, *Ex Ante Disclosure of Stress Testing Inputs for Selected Large Jurisdictions*).¹¹

Second, look what happened to the failed government-sponsored enterprises, Fannie Mae and Freddie Mac. They were subject to Congressionally mandated stress tests from 2002 to 2008, but those tests did not detect the growing risk. In fact, they showed strong capital compliance.

What happened? In retrospect, the law creating the stress-test mandate had important weaknesses. It codified the inflexibility of the central stress scenario. An analysis by three Federal Reserve economists, published after the GSEs' failure, noted that the supervisor, the Office of Federal Housing Enterprise Oversight (OFHEO), never tweaked its model estimates nor introduced new variables, despite well-documented changes in mortgage underwriting practices during this time. The authors argued that the problem, in part, was that details were published in advance for public comment. The paper found,

“One potential reason for this static approach was that OFHEO was required by law to fully disclose the stress test model and went so far as to publish all stress scenarios, empirical specifications, and parameter estimates in the Federal Register. Hence, it would have been administratively cumbersome to make any material changes to the underlying models.”¹²

Conclusion

In short, supervisory stress tests are very important for bank risk management and supervisory oversight. I'm concerned, as are many others, that the tests have become too routinized and bureaucratized, and that further disclosures from regulators will simply make them more so.

With thanks to outstanding research support from Vincient Arnold.

¹¹ Financial Stability Institute, *Online appendix - Stress-testing banks – a comparative analysis*, page 22, available at https://www.bis.org/fsi/publ/insights12_appendix.pdf.

¹² Scott Frame, Kristopher Gerardi, and Paul S. Willen, “The Failure of Supervisory Stress Testing: Fannie Mae, Freddie Mac, and OFHEO,” Federal Reserve Bank of Boston Working Paper No. 15-4, page 3, available at <https://www.bostonfed.org/publications/research-department-working-paper/2015/the-failure-of-supervisory-stress-testing-fannie-mae-freddie-mac-and-ofheo.aspx>.

Appendix 1: The Basel IRR-BB standard and Silicon Valley Bank

The Basel Committee's interest-rate risk standard is based on an economic value of equity (EVE) test. Under the [current version](#) of the standard, as toughened in 2016, a bank is an outlier if the impact of interest rate shocks on its EVE would exceed 15% of its tier 1 capital. The [previous version](#) had been 20% of a bank's total capital. The 2016 standard also made the test more rigorous by introducing multiple scenarios.

Supervisors in countries that have adopted the Basel standard are expected to require outlier banks to raise new capital under Pillar 2 of the Basel III capital accord or take other mitigating actions to change their asset and liability mix. Jurisdictions such as Canada, the UK, and Europe revised their rules since 2016 to comply with the new standard.

However, US regulators never implemented the EVE standard, the outlier test, or the capital requirement connected to it.

The Securities and Exchange Commission requires listed banks to publicly disclose the sensitivity of their EVEs to parallel interest rate shocks in their annual 10-K filings.

According to Silicon Valley Bank's 2020 and 2021 annual 10-K filings, a 200 bps increase in interest rates would have resulted in 22% and 35% declines in EVE in 2020 and 2021, significantly above the 15% threshold.

Appendix 2: Ex Ante Disclosure of Stress Testing Inputs for Selected Large Jurisdictions*

	United States ^A	Euro Area ^B	United Kingdom ^C	Japan ^D	Australia ^E	Switzerland ^F	Canada ^G
scenario descriptions	disclosed ⁱ	disclosed ⁱⁱ	disclosed ⁱⁱⁱ	disclosed ^{iv}	disclosed ^v	limited disclosure ^{vi}	limited disclosure ^{vii}
variables considered	disclosed ^{viii}	disclosed ^{ix}	disclosed ^x	disclosed ^{xi}	disclosed ^{xii}	limited disclosure ^{xiii}	limited disclosure ^{xiv}
quantitative details of variables for scenarios	disclosed ^{xv}	disclosed ^{xvi}	disclosed ^{xvii}	disclosed	disclosed ^{xviii}	limited disclosure ^{xix}	limited disclosure ^{xxi}
model specifications and methodology	disclosed ^{xxii}	disclosed	disclosed ^{xxiv}	undisclosed ^{xxv}	undisclosed ^{xxvi}	undisclosed ^{xxvii}	limited disclosure
specific loss rates by asset class	disclosed ^{xxix}	undisclosed ^{xxx}	undisclosed ^{xxxi}	undisclosed ^{xxxii}	undisclosed ^{xxxiii}	undisclosed ^{xxxiv}	limited disclosure ^{xxxv}

* In general, we try to distinguish between disclosure to participating banks (“limited disclosure”) and public disclosure (“disclosed”). In some circumstances where primary regulator information was difficult to access, secondary sources are relied upon.

^A Inclusive of Dodd-Frank Act Stress Test (DFAST) and Comprehensive Capital Analysis and Review (CCAR).

^B Inclusive of joint European Banking Authority, European Central Bank, national authorities, and European Systemic Risk Board (EBA-ESRB) annual stress tests and European Central Bank Supervisory Review and Evaluation Process (ECB-SREP) stress tests, but exclusive of thematic, climate, and macroprudential stress tests and ad hoc vulnerability analyses. See European Banking Supervision on [stress testing](#).

^C Inclusive of the Annual Cyclical Scenario (ACS) but exclusive of insurance industry stress tests, market-specific stress tests (e.g., those targeting specific subsets of the financial system, like mortgage markets), and the and the Biennial Exploratory Scenario (BES), because it is not used to set capital requirements.

^D Inclusive of Bank of Japan (BoJ) Stress Test and Japan Financial Services Agency (JFSA) Stress Test.

^E Inclusive of the Australian Prudential Regulation Authority (APRA) stress tests, but exclusive of climate-related stress tests, firm-specific stress tests, and the Reserve Bank of Australia (RBA) stress tests (which are less publicized and used more for research purposes).

^F Inclusive of Building Block Analysis – Large Banks (BBA-LB); Building Block Analysis – Domestically Focused Banks (BBA-DFB); and Swiss Financial Market Supervisory Authority (FINMA) Stress Test.

^G Inclusive of Office of the Superintendent of Financial Institutions (OSFI) Industry-Wide stress tests and Bank of Canada (BoC) Macroprudential stress tests, but exclusive of climate-related stress testing and institution-specific stress tests.

ⁱ Federal Reserve, 2022 Stress Test Scenarios, 2022 ([DFAST 2022 Scenarios](#)).

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- ⁱⁱ European Systemic Risk Board, *Macro-financial scenario for the 2020 EU-wide banking sector stress test, 2020* ([ESRB 2020 Scenarios](#)), pp. 2–9.
- ⁱⁱⁱ Bank of England, *Stress testing the UK banking system: key elements of the 2022/23 annual cyclical scenario, 2022* ([BoE ACS 2022](#)).
- ^{iv} Bank of Japan, *Financial System Report (October 2021)*, 2021 ([BoJ FSR 2021](#)).
- ^v Australian Prudential Regulation Authority, *Stress testing banks during COVID-19, 2020* ([APRA COVID Tests](#)).
- ^{vi} Disclosed to banks, but limited public disclosure. Warren Hrungrung and J.P. Rothenberg, *Comparative stress testing in the U.S. and Switzerland*, 2023 ([ABA 2023](#)).
- ^{vii} Disclosed to banks, but limited public disclosure. International Monetary Fund, *Canada: Financial Sector Assessment Program: Technical Note on Stress Testing*, 2014 ([IMF Canada 2014](#)), pp. 12–42.
- ^{viii} DFAST 2022 Scenarios. However, considerable discretion given to relevant authorities for ECB-SREP—see European Banking Authority, *Guidelines on Common Procedures and Methodologies for SREP and Supervisory Stress Testing*, 2018 ([EBA 2018 Guidelines](#)), pp. 203–210.
- ^{ix} ESRB 2020 Scenarios, pp. 10–26. However, considerable discretion given to relevant authorities for ECB-SREP, see EBA 2018 Guidelines, pp. 203–210.
- ^x BoE ACS 2022.
- ^{xi} BoJ FSR 2021.
- ^{xii} APRA COVID Tests.
- ^{xiii} Disclosed to banks, but limited public disclosure. ABA 2023.
- ^{xiv} Disclosed to banks, but limited public disclosure. IMF Canada 2014, pp. 12–42.
- ^{xv} DFAST 2022 Scenarios.
- ^{xvi} ESRB 2020 Scenarios, pp. 10–26. However, considerable discretion given to relevant authorities for ECB-SREP, see EBA 2018 Guidelines, pp. 203–210.
- ^{xvii} BoE ACS 2022.
- ^{xviii} BoJ FSR 2021.
- ^{xix} APRA COVID Tests.
- ^{xx} Disclosed to banks, but limited public disclosure. ABA 2023.
- ^{xxi} Disclosed to banks, but limited public disclosure. IMF Canada 2014, pp. 12–42.
- ^{xxii} Federal Reserve, *2022 Supervisory Stress Test Methodology*, 2022 ([DFAST 2022 Methodology](#)), pp. 17–62.
- ^{xxiii} ESRB 2020 Scenarios, pp. 28–44. However, considerable discretion given to relevant authorities for ECB-SREP, see EBA 2018 Guidelines, pp. 203–210.
- ^{xxiv} Bank of England, *Stress testing the UK banking system: Guidance on the 2022 stress test for participants, 2022* ([BoE ACS Guidance 2022](#)).
- ^{xxv} BoJ FSR 2021.
- ^{xxvi} Australian Prudential Regulatory Authority, *Testing resilience: The 2017 banking industry stress test, 2018* ([APRA 2017 Tests](#)). Indeed, the APRA didn't use a core stress model, but rather relied on revisions to assessed banks' internal modeling.
- ^{xxvii} ABA 2023.
- ^{xxviii} Disclosed to banks, but limited public disclosure. IMF Canada 2014, pp. 12–42.
- ^{xxix} DFAST 2022 Methodology, pp. 67–91.
- ^{xxx} ESRB 2020 Scenarios, pp. 28–44. However, considerable discretion given to relevant authorities for ECB-SREP, see EBA 2018 Guidelines, pp. 203–210.
- ^{xxxi} BoE ACS Guidance 2022.
- ^{xxxii} BoJ FSR 2021.
- ^{xxxiii} APRA 2017 Tests.
- ^{xxxiv} ABA 2023.
- ^{xxxv} Disclosed to banks, but limited public disclosure. IMF Canada 2014, pp. 12–42.

Chairman BARR. Thank you for your testimony.

We will now turn to member questions, and the chair now recognizes himself for 5 minutes for questioning.

We will start with Mr. Gould. Will you please explain why it is legally problematic for the Fed to keep secret the stress test models and methodologies?

Mr. GOULD. Thank you, Mr. Chairman.

Yes, so because the models and scenarios that the Fed is using, and at least with respect to the models not disclosing, are not put out for public comment, and because the Fed relies upon those models and scenarios to, essentially, calculate the stress capital buffer, which is a binding constraint on banks' capital, those models and scenarios are, essentially, legislative rules, and under the Administrative Procedure Act they have to go through public notice and comment rulemaking.

Chairman BARR. Are there also legal problems with the fact that the Fed does not give the public any opportunity to comment on the scenarios used in the tests?

Mr. GOULD. Well, yes, public comment is a requirement under the Administrative Procedure Act (APA) for legislative rules. So yes, that is a problem as well.

Chairman BARR. Could public comment improve the—not only the process but the tests themselves?

Mr. GOULD. Yes. So setting aside the legal requirement that they have to do this from a policy standpoint, yes, it could inform it. In fact, that is the entire rationale behind public comment, generally. It is to inform the agency promulgating the rule on how to make the rule better.

Chairman BARR. Mr. Covas, a number of commenters, including you, have noted the overlap between the stress testing and the Basel III Endgame proposal, as I suggested in my opening comments. Can you talk about how supervisory stress tests already account for market risk and operational risk?

Mr. COVAS. Thank you for the question.

Yes, the Fed projects operational risk losses over the nine quarters of the stress horizon. That threat reduces revenues under stress for the banks subject to the stress test, so operational risk is already accounted.

For market risk, the Fed, as for the largest banks, subjects the largest banks to global market shock, for which assumes an instantaneous shock to banks' market positions and result in significant losses.

So operational risk losses account for about 25 percent of losses of all the banks, such as the stress tests. Market risk losses accounts for roughly 20 percent for market risk losses for the largest banks in the stress test.

Chairman BARR. We are told that the Fed is undertaking broad and material changes to the proposal, but if you—if the Basel III Endgame proposal were finalized as it has been proposed, do you think that there would be a double count of these risks? Meaning that banks will be required to hold more capital than is necessary to address their market and operational risks.

Mr. COVAS. So yes. The Basel III proposal basically doubles capital requirements for operational risk and material increase capital

requirements for market risk. The way the banks allocate capital across business lines, they look at the entire capital requirement both based on the Basel framework as well as the result of the stress tests. There are significant overlaps because both of the stress losses—operational risk losses, for example, they are stress losses and the stress tests, by definition, also under the new Basel framework, they also are considered to be stress losses. They are all calibrated back to the global financial crisis, mortgage losses that the banks experience, and they effectively are double counted in a sense that they are requirements to hold capital for exactly the same type of risks.

Chairman BARR. So I think that is very important that the Fed then take into account, as they undertake these broader material changes to Basel III, that they take into account what the stress tests actually require as well so that there is not double counting.

Mr. Campbell, finally, there were numerous concerns expressed on the Basel III Endgame proposal. Fed Chair Powell and Vice Chair Barr have both stated that these comments have been helpful in ensuring proper consideration of the costs and benefits and the expected decrease in availability of credit. It seems to me that the static capital requirements have benefited greatly from transparency and public engagement. At the end of the day, stress tests are essentially dynamic capital requirements, as Mr. Gould pointed out.

Is there any reason to think that stress tests would not similarly benefit from transparency and public engagement?

Mr. CAMPBELL. No. I think, in fact, indeed there is every reason to believe that the stress tests would benefit greatly from that kind of public engagement. As evidenced by the Basel III Endgame process, there has been a voluminous amount of comments on those rules and that proposal. Most of the commenters, quite frankly, have been from nonbanks. As you indicated, the Federal Reserve key senior policymakers have indicated that those comments have been broad and helpful and that they will result in broad and material changes. So it is puzzling, quite frankly, to understand why the Federal Reserve would not want to avail itself of the same benefit in the context—

Chairman BARR. Finally, Mr. Campbell, can you address this accusation of gaming with transparency?

Mr. CAMPBELL. Sure. So I think gaming is a misnomer, and I think—the issue is that banks use information in the regulatory structure and the regulatory architecture to engage in prudent risk management. They look at risk weights, they look at use of capital surcharges. All of the facets of the regulatory—bank regulatory framework are available to them. They can look at those things. They are publicly available because they are in the notice and comment process, and they use that information to engage in prudent risk management.

That is no different for stress testing than it would be in the way that firms look at risk weights in the context of Basel III Endgame. They all feed into the total overall capital requirement that applies to the firm and they use that information.

Chairman BARR. Thank you. My time has expired.

The chair now recognizes the ranking member, Dr. Foster, for 5 minutes.

Mr. FOSTER. Thank you, Mr. Chair.

One of the defining characteristics of the 2008 crisis was the unanticipated level of interconnection and contagion. It is hard for me to see how pure capital requirements can pick that up as well as a stress test. You know, if you think of the question of American International Group (AIG) when it came out was no one anticipated just how interconnected AIG was and what a body blow it would be to the entire international banking system if AIG went bust. That became a huge issue when it, in fact, did go bust.

Mr. Feldberg, can you talk a little bit about how a stress test might be able to go after a contagion and interconnect in this in a way that just pure regulatory capital requirements might not?

Mr. FELDBERG. Sure. I think the basic innovation of the stress test is the introduction of a severe shock that is imposed on the entire sector, the entire financial sector, to the extent that this—the shock affects intermediaries and you are supposed to be catching the impact that would have on banks. I am not particularly convinced that the AIG scenario would have been caught by the stress test the way they are currently designed.

After the global financial crisis, there were many responses by the regulatory community to try to address the AIG incident and to make sure that does not happen again, ranging from the way banks manage their risks to the way credit risk transfer and structure credit products are handled in the first place. I think the development of the credit risk transfer market in recent years suggests that, that some of those risks are rising again, and that would be a useful thing to add to the stress test. I am not sure if it was included this year and I hope they include it next year.

Mr. FOSTER. I am a little—it appears that there is a little talking past each other. What exactly is meant by increased transparency? You know, so radical transparency means that the Fed just publishes all the Python source code for all its models for all of the—which could be done, but that is only half the problem. The public is going to understand what is involved. They will also have access to—need access to the granular information that you get from banks which seems would have huge problems. I doubt that, Mr. Campbell, your members would be enthusiastic about revealing that to the public.

How do you—it would be—so when you are talking about letting the public see this, the public seems really to be the analyst inside the giant banks rather than the general public. They will be able to see how the details of the model applies to all the private information they hold. So how do we deal with this? If you have a lot more transparency preventing the public from reverse engineering, many of the positions and private information of the large banks and—or, generally, how do you deal with that tradeoff?

Mr. CAMPBELL. So—

Mr. FOSTER. Well, first off, I want to compliment you on your—it took me two glasses of wine to get through your written testimony, and it was excellent, very thoughtful. Thank you.

Mr. CAMPBELL. Great. Now, next time I will aim for three glasses, but thanks very much.

To address your question, first of all, I think I would say that when we talk about the public—so clearly that includes the banks, so I want to be absolutely transparent about that. So the public includes the banks but the public also includes not general members of the public like people like my dad, but people who are, say, economics professors at Stanford University, people who are risk management experts inside the industry, and there are a variety of people in the public that have the wherewithal and the ability to make sense of and understand better disclosures of who are not, essentially, John Q. Public, but who are experts in the field. So, we should be thinking about those people.

Then with respect to your point about the information, so the one thing that I would point out is that the nature of the data the Federal Reserve collects from the banks in the context of the stress testing process is publicly available through the Y-14 forms. Those forms are on the Federal Reserve's public website. The data is not filled in, but the public has a window into exactly what data is being collected by the Federal Reserve. It has access to the instructions—

Mr. FOSTER. Yes. For example, Mr. Covas was complaining about what appeared to be sort of random jumps in the stress capital buffer. Those could be due to real differences. For example, there is an article in *The Wall Street Journal* about the synthetic risk transfers. Even though, instead of taking it out of the banking system, it would boomerang back into the banking system.

So that is the sort of thing that should cause a big—if a bank gets involved in that, there should be a big variation in the capital stress buffer if they decide to get involved in that sort of event. The problem is that you are going to have to reveal a lot of details about what the banks' positions really are that caused it to have a big variation on the capital stress buffer.

Mr. COVAS. Very quickly. I mean, I do not think—so a lot of the issues arise on the revenue side. For example, in terms of the volatility you cited, the banks would like to know or the public would like to know just which variables are being used, the sensitivities and the coefficients. A lot of the issues are due to the lack of data that the Fed is using, and I think the banks have much more better data and more experience, and that could be dialog similar to Basel Endgame where the Fed receives comments from the industry and from subject matter experts that leads to improvement of the models.

Mr. FOSTER. I think the gavel is coming down here, but thank you.

Chairman BARR. Thank you.

The gentleman from Florida, Mr. Posey, is now recognized.

Mr. POSEY. Thank you very much, Chairman Barr.

Mr. Covas, would you please explain how the lack of transparency in Fed stress models resulted in uncertainty and impairs the ability of banks to do capital management planning?

Mr. COVAS. Sure. Thank you for your question.

So stress test results, the results can change every year, and that the fact it is a capital requirement, it is not uncommon to see increases in capital requirements in excess of 1 percentage point, and the banks have 3 months to comply with the new requirement.

So just to give you a contrast, under Basel, the average estimate by the agencies was about 2 percentage points increasing capital requirements and the banks have 3 years to comply, plus they are subject to notice and comment. So the banks effectively have 3 months to comply with the new requirement, which if they—no bank wants to be inside the buffer when the requirement goes live. Usually the results come at the end of June, go live October 1. So they have to make significant adjustments to their portfolios if they want to meet the new requirements.

So ex ante, in face of this uncertainty, the banks just decide to underinvest in activities that tend to be—that are more cyclically sensitive; namely, small businesses and lending to households with less than pristine credit scores. They tend to be the exposures that they tend to economize and that is how it reduces lending and economic activity.

Mr. POSEY. Okay. You have written on the impact of stress tests on capital requirements and accessibility of credit for small businesses. Could you summarize that research for me?

Mr. COVAS. Sure. So it is basically the fact that small businesses are a highly cyclical sensitive activity. When you have, in the Fed, analysis assuming unemployment rate goes from 4 percent to 10 percent, the risk of lending to those borrowers increase significantly and the banks just have to allocate much more capital. So over time, the banks have tried—they want to economize capital and assess the return on the investment versus the cost of making such investments. Over time, what we have seen in the data is that the banks, subject to the stress tests, have moved away from these more cyclically sensitive activities like small business lending.

Mr. POSEY. Thank you.

Mr. Campbell, you did research suggesting the Federal Reserve's stress models overestimate Gross Domestic Product (GDP) declines and stress test losses. Could you please explain how the overestimates capital requirements and increases the cost of capital to banks?

Mr. CAMPBELL. Sure. Again, briefly, you are correct that we have done some research at the Financial Services Forum showing that the decline in GDP that you find in the stress tests is, larger than historical experience. So during the financial crisis, GDP fell about—really GDP fell about 4 percent. In the most recent stress tests it fell by 8 percent, and it kind of bumps around in that general region. So it is effectively overstated relative to what we have seen in other severe historical recessions.

It is also overstated relative to other empirical sort of regularities that relate GDP declines to unemployment. The obvious impact there is that, although we do not know exactly how the stress testing models are put together, real GDP declines are a driver of losses in all the stress testing models. So whether we are talking about auto loan losses, mortgage losses, business loan losses, a decline in GDP is going to result in those loan losses.

If you ramp up the declining GDP, you are going to ramp up the loan losses. That is going to make those assets look riskier, maybe riskier than they actually are, given the overstatement and the decline of GDP, and that is going to result in increased capital requirements which has the natural effect of raising the cost of fund-

ing and then incentivizing a pull back in lending to those sectors into those markets.

Mr. POSEY. Thank you very much, Mr. Campbell.

Mr. Chairman, I yield the balance of my time.

Chairman BARR. The gentleman yields.

Will Mr. Campbell please pull the microphone a little closer to you for future testimony. Thanks.

The gentleman from California, Mr. Sherman, is now recognized.

Mr. SHERMAN. It is not surprising in a capitalist country that we have fights over the allocation of capital and there is a fight between blue collar families operating small businesses, pizzerias, plumbing supply operations, and Wall Street, that prefers billion and multibillion dollar transactions. All the decisionmakers are grad school educated, people wearing ties like me and you.

I will not say that the decisionmakers and the regulators hate the blue collar families, they just do not feel comfortable with them. So when we have to make a decision as to where the money goes, it does not go in \$250,000 loans to pizzerias. It goes in multibillion dollar transactions on Wall Street, and I see these stress tests as pushing us further in that direction.

You can see from a bank examiner's standpoint, Silicon Valley Bank buys \$50 billion worth of treasuries, oh, that looks wonderful. Wall Street understands that. All the files are perfect. We kind of know what the credit rating is of the borrower. If you actually look at the file for a \$250,000 loan, it is a bit messy, some things are handwritten. It would not get you an A at any major business school. So this capital is shown because of—this fight—is shown by Basel III proposals that give only a 65 percent rate rather than a 100 percent rate when the borrower is a publicly traded company.

The greatest problem we have is the fight between interest rate risk and credit risk. The pizzeria loan is nothing but credit risk. The Treasury investment is nothing but interest rate risk. So we have a system that focuses on the credit risk and deliberately ignores the credit risk—the interest rate risk. They do it deliberately and they do it by what I call the stupid depositor model, which is that if interest rates go up, your whole portfolio of treasuries goes down in value, but the bank makes money because it has lots of stupid depositors who will leave their money in non-interest bearing accounts and not take it out and not put it in money markets yielding 5 percent.

You know who turned out to be stupid? Not the depositors at Silicon Valley Bank; the bankers at Silicon Valley Bank and the regulators of Silicon Valley Bank.

So I want to ask each of our witnesses, are you aware of any stress test that focused on the risk of interest rates going up, a pretty obvious risk, because 5 years ago, interest rates were 0.0. They had only one way to go, and did that, a test, a stress test for interest rates going up and depositors not being stupid. Any of our witnesses aware of any such stress test?

I do not see—oh.

Mr. FELDBERG. So the interest rate risk, the Basel standard that I mentioned, is essentially a stress of a portfolio against changes in interest rate risk and interest rates.

Mr. SHERMAN. That is proposed for the future. We have had stress tests for a while.

Mr. FELDBERG. No, other—other countries been doing it for 20 years almost.

Mr. SHERMAN. Has the United States, as our regulators, done a stress test looking at the very stress that was pretty obvious that interest rates would go up having been—

Mr. FELDBERG. No, that is exactly right, they did not do that.

Mr. SHERMAN. Then even worse for Silicon Valley Bank, et cetera, two worst things: One is they did not even have to face a stress test because they were below the limit and the limit should have applied. Then second, to illustrate how it is not the depositors that are stupid, Silicon Valley Bank had, in fact, an insurance policy against interest rates going up and their portfolio bonds going down. You know what they did with that insurance policy? They sold it to generate money. They could generate bonuses for their executives.

I realize I have used a lot of my time. I will just say that I do not see there is much excuse for the regulators not to publish everything after the test. You do not give away the questions before the test but after the test. This is a democracy, things are supposed to be public.

I yield back.

Chairman BARR. The gentleman yields.

The gentleman from Missouri, Mr. Luetkemeyer, is now recognized.

Mr. LUETKEMEYER. Thank you, Mr. Chairman.

I thank our witnesses for being here today, an interesting discussion today.

What is the purpose of the stress tests? Mr. Campbell, what do you think the purpose of a stress test should be?

Mr. CAMPBELL. I think the purpose of the stress test should be to assess the capital adequacy of the Nation's largest banks.

Mr. LUETKEMEYER. Okay. If you are going to assess that, would you not want to know how you are going to be assessed, so that you can manage your bank accordingly? I mean, that would seem to me what I would want to know.

Mr. CAMPBELL. Yes, absolutely.

Mr. LUETKEMEYER. So what we have here right now is a game of gotcha, if we do not have the Fed be able to give us the information that is going to be on the stress test so that we can change our model. To me, the stress test should be the Fed's own thought process of what the next crisis is going to be, what the next concern should be with regards to managing banks and our economy coming down the road.

Mr. Sherman made a great point here a minute ago with regards to the interest rate risk that got Silicon Valley and several other banks. It was attested for. Is that correct?

Mr. CAMPBELL. I am sorry, I did not quite hear you.

Mr. LUETKEMEYER. Okay. The stress test that Mr. Sherman was talking about with regards to interest rate risk, that was not on the stress test.

Mr. CAMPBELL. Correct.

Mr. LUETKEMEYER. I think it is being incorporated now, if I understand it correctly. So they missed the future problem that could have—that they should have been able to see, as you pointed out. Everybody should know if they are interest rate's at zero, down the road you are going to see them go up.

To me this stress test should be something that would help banks manage their future problems according to what the Fed sees those problems to be. So the discussion then is, why do we not want to know those things ahead of time so that we can actually manage our banks? You want to wait a year before you get your stress test, before you can actually change your model, so that you can minimize your risk? Does that make sense to you?

Mr. CAMPBELL. No, not generally.

Mr. LUETKEMEYER. Mr. Gould, what do you think of my analogy so far in my discussion, am I on point or am I off on this?

Mr. GOULD. I think you are on point, Congressman. I would just note that I think the underlying analogy to the concept of gaming is fundamentally off, right. This is not a situation where testing the bank's knowledge, and so we do not want to go into the answer set. Capital—this is a compliance obligation and we are setting capital requirements. Inherent in setting capital requirements is establishing incentives. Some of the very incentives that Congressman Sherman was mentioning have altered the nature of the banking industry and the clients and customers it serves. So I think it is very important that we know these in advance.

Mr. LUETKEMEYER. So to me the argument about gaming the system is false. I think we need to be showing how this test could actually help banks manage their banks better. That is what it should be all about at the end of the day. Have a better banking system and a more sound economy and everything is going to run much better, but anyway.

Mr. Gould, you went into a lengthy discussion, I know Mr. Covas also had some comments with regards to the Administrative Procedures Act and the fact the Fed does not adhere to that. So if they do not adhere to administer—that is a law, by the way. If they are not adhering to that, are they in violation of the law?

Mr. GOULD. Congressman, that is up for—that is for a court to decide. Certainly, I have not heard a convincing defense as to why they are not providing a notice in common on these models.

Mr. LUETKEMEYER. You are an attorney, are you not?

Mr. GOULD. Yes, sir.

Mr. LUETKEMEYER. Do you advise banks, with your practice?

Mr. GOULD. I do.

Mr. LUETKEMEYER. Do you advise the banks to go after the Fed and sue them if they are going to try and impart this thing on to them without going through the proper procedures and it is in violation—it is a violation of law?

Mr. GOULD. Look, I think that is a individual determination that banks have to weigh pros and cons because, as you know, banks have a lot of—

Mr. LUETKEMEYER. Okay. Well, you were advising the American Bankers Association or the—which represents mostly big banks, would you advise them to take this to the court?

Mr. GOULD. Congressman, I would certainly advise them to consider it strongly.

Mr. LUETKEMEYER. Okay. Very good.

Question number three: One of the things that concerns me is that we have a situation here with this proposal that the Fed is going through with stress testing and it seems very inconsistent when you look at Current Expected Credit Losses (CECL). Here they asked the banks to be able to do their own modeling with regards to the local economy, with regards to how they should determine loan loss. You have one bank on one side of the street, one bank on the other side of the street come up with completely different models and that it could be okay.

So now we are talking about stress tests, it goes across everybody, and they are sitting here with no ability to have an impact. To me, whenever you have people—the reason for comment period, by the way, is to have people who actually know what they are doing in the business to be able to tell you whether it is going to work or not.

Mr. Chairman, I will yield back. The balance of my time is gone.

Chairman BARR. The gentleman yields.

The gentleman from Georgia, Mr. Scott, is now recognized.

Mr. SCOTT. Thank you, Mr. Chairman.

You know, we worked on this. I felt this was a real critical part of Dodd-Frank. Many of us on this committee were around back then and put a lot of work into it.

Mr. Feldberg, there is one piece that we have been leaving out here. There are two pieces to this, and we talked about the banks, and that is the nonbanks. I want you to kind of delve into that a moment. Because oftentimes we miss the real deal in solving a problem, much like we did with Dodd-Frank, and we had to call attention, I know I did with Barney Frank, and say we cannot solve this with just bailing out the banks. We have to do something else for those people who are losing their jobs, who are losing their homes, and we came up with the hardest hit.

Tell us about the nonbanks. How can shock scenarios and hypothetical models be designed to best analyze the interconnections between the banks and the nonbanks?

Mr. FELDBERG. That is a very good question. Thank you.

Other countries have taken a much more aggressive approach on this. The bank of England is currently doing an exploratory analysis—

Mr. SCOTT. You said the Bank of England?

Mr. FELDBERG. Yes, of banks and nonbanks. The U.S. has not done this yet. I think part of the—another aspect of Dodd-Frank was designating systemic firms that were not paying for supervision, which might have led to stress testing of those entities but we have not attempted that yet. There are models around the world, other Central Banks, the IMF, that conducts stress tests on the nonbanking sector, and that is something that the U.S. ought to be doing too. It is harder when you do not have supervisory regulatory authority over an entity to involve them in a stress test.

Mr. SCOTT. Do you feel it is possible to build a process through which banks could replace some Fed models with their own model, subject to careful consideration and Fed approval?

Mr. FELDBERG. So I would not recommend replacing the Fed stress test, but the banks that do have their own models, and I think the existence of both Fed models and the banks' own models is a good thing to have both of those checks over the risk management of the bank.

Mr. SCOTT. Yes. Now, how can Federal regulators safeguard, search a process against poor quality of risk management or without sacrificing the Fed's goal of consistency across the institutions subject to stress testing, and that is particularly for the most poorly managed firms.

Mr. FELDBERG. So there used to be a qualitative objection that the Fed raised in the stress testing process, which has been taken out in recent years but the Federal Reserve supervisory process should allow for what you just said quite extensively. If the Fed is unhappy with an outlying bank's risk mismanagement practices, the Fed's supervisory authorities should be quite extensive for addressing that through the traditional tools.

Mr. SCOTT. Do you feel that we are on the right course in this? Are there any other things that we on this committee can do to make sure that never again will we have the bank failures, the collapse of our financial system? That is the whole purpose of the work we did with Dodd-Frank. Is there any more we need to do, particularly in this area that you and Yale University are doing such great work on?

Mr. FELDBERG. There is certainly more that could be done with non-banks. I mentioned interest-rate risk management. I think part of it is keeping track of financial stability risks—

Mr. SCOTT. You said interest rates—

Mr. FELDBERG. Risk management, oversight—

Mr. SCOTT. Good. All right.

Mr. FELDBERG. Then holding hearings like this to identify financial stability risks that might be overseen—or, might be missed by the regulators, like Congressman Foster mentioned, systemic risks—

Mr. SCOTT. Thank you very much, Professor.

Chairman BARR. The gentleman's time has expired.

The gentleman from Texas, the chairman of the Small Business Committee, Mr. Williams.

Mr. WILLIAMS of Texas. Thank you, Chairman.

Thank you all for being here today, and I am from Texas.

Now, the Federal Reserve stress-testing scenarios can play a key role in enhancing the stability of the financial system. Annual stress-test scenarios can increase the public's confidence in banks' ability to handle economic headwinds and maintains confidence in the overall U.S. banking system.

However, the Federal Reserve continues to limit transparency by failing to disclose their stress-test models—we have talked about that—while also denying stakeholders and the general public the opportunity to provide feedback on stress-test scenarios.

So greater transparency and accountability in stress tests provides all stakeholders, big and small, with the opportunity to identify flaws and suggest improvements to make the scenarios more useful and the outcomes more accurate.

So, Mr. Gould, can you please elaborate on the benefits of greater transparency in stress testing and why a proper notice-and-comment period is important?

Mr. GOULD. Yes, Congressman.

First of all, as a matter of administrative law, if this is a legislative rule, which it certainly appears to be, then the models and scenarios themselves must be disclosed and they must be subject to public comment.

From a policy standpoint, public comment is really important because it actually, ideally, makes the ultimate work product better, number one. Number two, it also, I think, increases credibility in the agency that is promulgating the legislative rule. Three, it serves as an element of accountability for that agency as well.

Mr. WILLIAMS of Texas. Okay.

The Fed's stress-testing regime is a black box comprised of thousands of pages of complex data, formulas, and models. This complexity and lack of transparency makes it difficult for outsiders to understand how these tests work or how they can predict their own outcomes. So, consequently, both banks and the public often struggle to grasp the full implications of the results.

Now, the complexity of the process can lead to uncertainty and mistrust among stakeholders who rely on these tests to ensure financial stability.

Mr. Covas, can you discuss how the secrecy and lack of information on the stress-test scenarios makes it harder to evaluate the analytical effectiveness and accuracy of the test outcomes?

Mr. COVAS. Thank you for your question.

The Fed models, because they are based on data that is not very granular, the results change significantly from 1 year to the next, just due to changes in banks' balance sheets and the fact that the scenarios themselves are also changing in ways that are unpredictable.

Now, the results—for example, what happened during the post-pandemic, the Fed increased significantly its balance sheet. By buying Treasury securities by the value—the amount of \$1 trillion, banks' balance sheets increased significantly with the reserve balances. According to the Federal Reserve models, the higher is your balance sheet, in particular by having—the higher are your expenses. That increases banks' capital requirements in the stress test, because they are holding more reserve balances, which is at zero to no interest—no interest expense.

As a result, the banks need to price in the increase in capital requirements in the loans they are making to households and businesses, and as a result, that reduces credit availability and ultimately impacts—negatively impacts economic growth.

Mr. WILLIAMS of Texas. Okay. Thank you.

Over the last year, I have talked at length about the dangers of increasing capital requirements on banks and the impact that these changes can have on businesses' ability to access reliable credit.

Now, a proposal like Basel III Endgame forced banks to hold more capital, which in turn increases overall borrowing costs and reduces availability of credit for businesses and consumers, in many cases, right down Main Street.

So this is why I am extremely concerned with the lack of transparency surrounding stress tests, because stress tests can be used to set binding capital requirements for banks. We must ensure transparency and public engagement on stress testing to reduce any redundancies which the capital requirements require.

Mr. Campbell, quickly, what are the real-world impacts stress tests have on banks' capital requirements and how does this impact the cost of credit and access to capital for businesses like mine?

Mr. CAMPBELL. Sure. In the last couple of years, the Federal Reserve has undergone actually a massive project to formally include the stress-testing process into the formal bank regulatory capital framework. Today, stress tests are run, and those result in what has already been discussed today, is the stress capital buffer. The stress capital buffer is indeed a regular element of a firm's required bank capital requirement.

So, after running the stress test, if their stress capital buffer goes up by, say, a full percentage point, that increases the amount of capital that they need to maintain against all of the assets on their balance sheet. As they need to raise more capital on their balance sheet to support the assets on their balance sheet, that increases the cost of funding, because bank equity capital is the most expensive form of finance. So, as they raise more capital, that raises the cost of funding.

As that raises the cost of a bank's funding, for any business—it does not matter if you are a bank or a car dealer or a bakery—when the cost of your inputs goes up, you turn around and you have to charge the customer more. So, ultimately, that is going to impact people who are borrowing from banks, and that is going to increase the interest rates that they get charged on loans.

Mr. WILLIAMS of Texas. I do not raise the cost of my cars.

Chairman BARR. The gentleman's time has expired.

The gentleman from Texas—the other gentleman from Texas, Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman.

I thank the ranking member.

I thank the witnesses for appearing.

I would like for Mr. Feldberg to respond, please.

Sir, if we make the banks aware of what we are testing, would that encourage them to be prepared for things that are not being tested, such that they would not take into consideration some of the many other concerns that may hurt us when we have a downturn?

Mr. FELDBERG. Sorry. Could you rephrase that?

Mr. GREEN. Yes. I am simply saying that if the banks are aware, if they know what the testing is all about—

Mr. FELDBERG. Uh-huh.

Mr. GREEN [continuing]. I am confident they would be preparing for this.

Mr. FELDBERG. Uh-huh.

Mr. GREEN. What about the many other things that they might avoid or not prepare themselves for because they focused only on what they are concerned with in terms of passing a test?

Mr. FELDBERG. Uh-huh.

Mr. GREEN. Your response, please.

Mr. FELDBERG. Yes, no, I think that is a fair point.

I think some disclosure—the Fed discloses quite a lot, as I pointed out, and I really think—I really want to emphasize that point. The Fed discloses a lot about the stress-test methodology, more than any other country. To some extent, that is a good thing. I think the argument I was making was that, at some point, you are providing so much data that all they are doing is optimizing to the test, and it is—

Mr. GREEN. Exactly.

Mr. FELDBERG [continuing]. and it is diluting the point of the exercise.

Former Vice Chair of Supervision Dan Tarullo, who was the leader who led the stress-test process through much of the first 5 or 10 years that it was run, has expressed concern about the excessive disclosures that are already being made, to some extent, and that could be made under what has been contemplated. He has made the argument that if you are really going to go this far and, what I would call, just make it like the OFHEO process that had such dire results with the Government-Sponsored Enterprises (GSEs), you might want to just consider something else.

It was kind of shocking to read Dan Tarullo's paper in Brookings just a month or two ago, where he said at this point, maybe we should just take away the connection of the stress test to capital. Because if we are going to go ahead and make it this predictable and easy to game, then really maybe we just need another tool. It was very distressing to see him say that. He laid out what it would look like if we were going to decouple it from capital.

Mr. GREEN. If we should decouple, what is that other tool?

Mr. FELDBERG. So, I mean—so, in his view, if you were going to, say—and I think it should be pointed out that other countries that do stress testing do not tie it as directly to capital as we do. So, essentially, it would just be looking like other countries. It would be an exploratory scenario that would help the regulators—inform the regulators on what the capital charges would be for individual banks.

That, of course, the way it works in other countries, would probably raise even more objections as far as transparency. I mean, if you look at Bank of England, any country, they conduct the stress test, and they say, this informs our individual capital charge for that bank. So, essentially, that is more of a black box than we are talking about here. So I do not think the banks are going to want to see that alternative.

Whatever you do, Tarullo made the point that if you are going to get rid of the stress test and its impact on bank capital, you are going to have to raise the basic level of capital before the stress test, just because you have gotten rid of all that sensitivity and analysis and its role in the capital process.

Mr. GREEN. Thank you, Mr. Chairman. I yield back the balance of the time.

Chairman BARR. The gentleman yields.

The gentleman from Tennessee, Mr. Rose, is recognized.

Mr. ROSE. Thank you, Chairman Barr, and thank you to our witnesses, and also Ranking Member Lynch for holding the hearing today.

Mr. Covas, in your testimony, you highlight that the reconsideration process of stress tests are inadequate. Could you—or, is inadequate. Could you elaborate as to why you believe that?

Mr. COVAS. Thank you for your question. Yes.

Since the stress capital buffer framework was put in place in 2020, we have had eight reconsideration requests, for which the Fed has effectively denied those requests.

However we do not know—to the best of my knowledge, there has been no change in adjustments in the stress capital buffer of those banks, and there is no explanation of how those reconsideration requests are currently being addressed in terms of change in the models and any timelines of how they are addressing the shortcomings of the models that have been pointed out by the firms.

Mr. ROSE. So it is truly a black box out of which the—

Mr. COVAS. Yes. It is very difficult to understand how the results change from 1 year to next, despite some of the disclosures. I have been following the stress tests for some time. It is always—when ever we get the results to compare against our expectations, it is very difficult to know exactly how the results change from 1 year to the next.

Mr. ROSE. Has there ever been a situation where the Federal Reserve has admitted fault and revised the stress capital buffer for a financial institution that appealed?

Mr. COVAS. To the best of my knowledge, no.

Mr. ROSE. Okay.

How would establishing a truly independent review mechanism with clear procedures and timelines solve the problems with the reconsideration process, in your opinion?

Mr. COVAS. So, just forcing—adding much more transparency around the process is going to force the Federal Reserve to just disclose a lot more information for the public and for the firms themselves that can analyze.

For example, notice-and-comment on the models would address many of the questions the banks have in terms of the behavior of the models. If they still disagree of the relationships, they can, again, through the notice-and-comments process, try to improve the models.

At the same time, this does not—is going to obligate the Fed to actually follow the comments provided by the industry. The Fed could always deny and not follow those.

So I do think it is important to have a third-party validator that just reviews the interchange of information between the commenters and the Fed and provides recommendations. You know, a good example would be the Government Accountability Office (GAO) to perform that role.

Mr. ROSE. As a recovering lawyer, the failure to solicit public comment on stress models and scenarios appears to violate administrative law. Your thoughts on that?

Mr. COVAS. So, coming from an economist, the Stress Capital Buffer (SCB) is effectively a capital requirement, no different from the Basel capital requirements that we have been discussing over the past year. So they are rules that affect banks' decisions in terms of capital allocation. So, yes, I do think they should be sub-

ject to the same requirements as the Basel Endgame proposal, for example.

Mr. ROSE. Mr. Gould, I know that you share these concerns as well. Have the courts reached any conclusions as to whether models treated by agencies as binding must go through public comment?

Mr. GOULD. Yes, they have, and the courts have concluded that models that are treated as binding by the agencies are subject to the public notice-and-comment.

Mr. ROSE. You think that would be appropriate here?

Mr. GOULD. It would seem to me. Again, I have not heard from the Fed any justification for an exception to the legislative rule process.

Mr. ROSE. You have also described the action of the Federal Reserve as appearing arbitrary and capricious. Can you explain why the Federal Reserve might appear that way due to its failure to disclose its models?

Mr. GOULD. Yes. I think this could come up, too, in the, kind of, reconsideration process. Because the Fed has not provided transparency around its models, it is very hard for them to fully explain how they arrived at the outputs to those models.

Mr. ROSE. Thank you. I appreciate that.

As a former bank board member, I have witnessed firsthand how regulation can be burdensome and ineffective.

Mr. Campbell, do you think that stress tests are useful for banks and supervisors?

Mr. CAMPBELL. I think they have the potential and the scope to be useful for banks and supervisors. I think the current implementation and the lack of transparency limits their usefulness considerably, and improved transparency would improve the extent to which they can be useful to banks and supervisors.

Mr. ROSE. What are some realistic changes that would provide immediate benefits to both the banks and supervisors, in your view?

Mr. CAMPBELL. As we have already discussed today, greater transparency on the implementation and the specification of the stress-test models themselves, as well as greater transparency on the scenario generation process, I think, would help to foster greater understanding amongst banks, amongst the public, and amongst regulators as to exactly how the models work, how they are risk-ranking different activities that are sitting on banks' balance sheets, and would help improve capital management decisions and understanding of the banking sector more broadly.

Mr. ROSE. Thank you.

I see my time has expired. Thank you, witnesses, and I yield back.

Chairman BARR. The gentleman yields.

The gentleman from California, Mr. Vargas, is recognized.

Mr. VARGAS. Thank you very much, Mr. Chairman.

First of all, I would like to say that I think this has been an excellent hearing. I am not exactly sure what side I fall on now. I am a little more agnostic, I think, to this issue. I do see both sides, to be frank.

I mean, I took a lot of tests in my life. If I had the questions prior to the test, I think I would have done better on some. I do agree with Mr. Sherman; after the test is over, I do not understand why it is not disclosed completely. I do not understand that aspect of it, to be frank. So I am not sure.

Whether it conforms to the APA or any other rules, I am not sure. For years here, I kept hearing how the Consumer Financial Protection Bureau (CFPB), their funding source, did not conform to the law. Of course, the Supreme Court came down quite clearly and said, of course it does, it is right down the middle, it is no big deal. So I am not sure here either if it does or does not. I know you have some stronger opinions here.

I do want to—and I always ask this question, so I am going to ask it of you. I think it would be unfair if I did not. How many of you believe in climate change, that the climate is changing?

Okay, all of you. I appreciate that. In a reasonable group like this, I would think that we would come up with that reasonable answer, and we did.

I do want to ask about that, because I do think that is a risk that we are not looking at strongly enough and transparently enough, frankly. I know that the Securities and Exchange Commission (SEC) now has taken a look at this, and I know the Fed is looking at it. They have conducted a pilot project on this program.

I wanted to tell you, I believe climate change is real, and we have seen things in my own district—we just—I represent San Diego—we had a 1,000-year event. You know, we had one of those 50 years ago—not even 50 years—20 years ago, and it is another 1,000-year event. It is not a 1,000-year event if it happens every 20 years.

So obviously the climate is changing. I want to know if these stress tests that we have are, in fact, taking that into account. It is hard to know if we do not know what they are—would someone like to comment on that?

Mr. FELDBERG. I—

Mr. VARGAS. Yes, go ahead, sir.

Mr. FELDBERG. I mean, I think the long-term changes in climate are just way beyond the timeframe of the typical stress test. Even having said that, the climate stress scenario that the Federal Reserve just conducted, I think, was extremely useful in understanding these risks and some of those risks really should show up in the next—in the planning period for a stress test when—

Mr. VARGAS. Well, I do not know that they are way beyond the time—I mean, you see all the things that are happening now. In fact—

Mr. FELDBERG. So—

Mr. VARGAS [continuing]. examples, you have data gaps right now in real estate exposures. You have—

Mr. FELDBERG. That is right.

Mr. VARGAS [continuing]. insurance and infrastructure exposures. The banks' financing, I am not sure that it is not within the scope and timing of these tests.

Mr. FELDBERG. So—

Mr. VARGAS. Can you comment on that?

Mr. FELDBERG. So, I mean, I think, to the extent that a bank is experiencing—has real estate on the coast and is experiencing borrowers whose insurance rates are going up and that is affecting their credit risk, we should not even be talking about climate scenarios; that should already be in their credit risk analysis. I mean, there should not be anything controversial about that.

Mr. VARGAS. I do not think there should be.

Would anyone disagree with that?

Mr. CAMPBELL. Yes.

Mr. VARGAS. Would anyone disagree with that, that it already should be in the models?

Mr. CAMPBELL. I think, to the extent that climate risk is approximate in first order of risk on bank balance sheets, then it should be included in the models.

I think there is an open question as to whether or not climate risk is a first-order imminent risk in the banking sector that would have material consequences to the banking sector. I think the available evidence and research suggests that it is not. As to Greg's point, especially over the time horizons over which we think capital is a useful economic resource, it is not clear that climate risk is a first-order issue.

To the extent that it is an important economic risk, then it should be captured in any risk model.

Mr. VARGAS. Anyone disagree with that?

I mean, that seems reasonable to me. I mean, I would disagree that it is not. I think it is but reasonable people can disagree. That is why it should be tested, it should be looked at, the information, the data should be there.

Mr. FELDBERG. I mean, I think—I mean, the insurability of coastal areas is already in question. I mean, this is happening now.

Mr. VARGAS. Uh-huh.

Mr. FELDBERG. That part is happening now.

The harder question, which the Fed also tested for, is the transition risk and that is the risk, very simply, of what happens when policy really finally transitions, if it does.

Mr. VARGAS. Uh-huh.

Mr. FELDBERG. So they tested net-zero 2050. The idea is, somehow the global community is going to agree that we need to do whatever it takes to get to net-zero by 2050, and what does that mean for the financial system? That is not going to—

Mr. VARGAS. Right. My time is about—

Mr. FELDBERG. That is not going to happen in the next 24 months, but it is a serious risk—

Mr. VARGAS. Yes.

Mr. FELDBERG [continuing]. that bankers should be considering in—

Mr. VARGAS. I have 10 seconds, so I am just going to say, I agree with what has been said here. I think it has been a very good hearing, and I appreciate it. I think it is important that this information, the stress-test information, be disclosed at some point.

Thank you.

Chairman BARR. The gentleman from Illinois, Mr. Casten, is recognized.

Mr. CASTEN. I did not expect to go so soon, but thank you.

Great minds are thinking alike with Mr. Vargas here. I want to follow up on this climate-risk thread. I guess I want to—I guess I am going to start with you, Mr. Campbell, since your clients are the GSIBs who are well-exposed to these stress tests.

Broadly speaking—and tell me if I am missing anything—if I am a GSIB, I have a risk on my balance sheet, I can either—to the extent I want to hold it and it is insurable, I can insure it and I can offload that risk onto an insurance company; to the extent I have a buyer and I can offload it, I can sell it or I suppose I can write it off.

Is there any other—if I do not want to hold the risk, do I have any other options, or have I accurately captured all the choices I have?

Mr. CAMPBELL. If you do not want to hold it?

Mr. VARGAS. If I do not want to hold the risk, I can either insure it, sell it, or write it off.

Mr. CAMPBELL. Some combination of that sounds right to me, yes.

Mr. CASTEN. Okay.

I asked the question because the characterization that climate risks are not near-term risks, I think, sits a little awkwardly with the reality, that we have actually seen lots of data that the more likely you are to hold a mortgage in a flood-prone area, the more likely you are to sell off that mortgage to Fannie and Freddie, which is path one. We have seen a whole bunch of areas of, can we get insurance? We have seen Fannie and Freddie move to, you know, are the reinsurance markets there, which we can insure it? Then, of course, we have these reports and stories about people in Texas and Florida who are now just sitting on uninsured homes where they are essentially writing it off, right?

So the risk is there. I think the question is not so much, do the banks perceive the risk, as much as, are the banks able to offload that risk into some other part of the financial system?

So, if we agree that they have the risk, then—I guess I will pivot to you, Mr. Feldberg—do you think that FSOC has the ability, authority, talent to identify where that risk is pooling in our financial system?

Mr. FELDBERG. So I think the FSOC certainly has the responsibility to do it. A lot of what you are talking about means the insurance sector, which is still State-regulated in the U.S. The State regulators sit on FSOC. So, to that extent, the FSOC could raise the issue with insurance.

It really is an issue that has to be looked at in terms of banks and insurance companies at the same time——

Mr. CASTEN. I mean, I get concerned——

Mr. FELDBERG [continuing]. because of the interconnections between them on this issue.

Mr. CASTEN. My wife is in the insurance industry, and she has no obligation to provide insurance in every State in the country.

Mr. FELDBERG. That is right.

Mr. CASTEN. Right? So I get nervous that does not eliminate the risk, and we are seeing it pool up in those other places.

Mr. FELDBERG. Uh-huh.

Mr. CASTEN. I raise all that because I think this question about transparency—I share my Jesuit friend’s agnosticism. I have never met a buyer who does not want transparency, and I have never met a seller who wants transparency, right?

So, if we were to go and identify all of these risks—and let us say we are sitting here and we say, there are risks in this society, and, by the way, maybe there are some of these climate risks that are held by the GSIBs, which is not insurable, which—the buyer is sufficiently informed that they do not want to buy it at a price you are willing to sell—

Mr. FELDBERG. Uh-huh.

Mr. CASTEN [continuing]. should we publicize that? Are we on board for transparency in that case or does that risk jeopardizing the solvency of the GSIBs because they now are sitting on risk rather than being able to offload that into some other part of the economy that is not subject to stress tests?

Does anybody have any—what should we do in that case? Should we make this information public, or should we punt it to a future Congress?

Mr. FELDBERG. That is a good question. I think we have been talking about the disclosure of the inputs into the process, and now you are bringing up the disclosure of the outputs of the process, which—there are also tradeoffs, like I mentioned in my paper, there.

You certainly want the disclosures about stress-test results to be informative to the public but you also do not want them to raise undue concern about individual institutions. It is part of the supervisory process, which has been a very confidential process since it was started 150 years ago. Certainly, information like that, you might not want that to be public.

Mr. CASTEN. Yes. Well—and if any of you have thoughts to continue that conversation.

There was a study out of Harvard that I think was in a recent Senate hearing, that they found that real estate in the U.S. may be overvalued by as much as \$237 billion because there are sort of second-tier rating agencies that are providing insurance for second-tier banks that are therefore able to offload this onto Fannie and Freddie.

I get it, right? Like, if there is a sucker who is willing to buy something from me, I will sell. All of us, whether as regulators or legislators, are ultimately going to have to fix that.

I think—I will close where I started. These climate risks are big, and they are real, and they are now but we need to do stress testing of the whole financial system, not just of the six biggest banks.

I yield back.

Chairman BARR. The gentleman yields.

The gentlewoman from California, Mrs. Kim.

Mrs. KIM. Thank you, Chairman Barr.

I want to thank the witnesses for joining us today.

I am all for ensuring the stability of our financial system. However, when we talk to small businesses and households, we should also be frank and transparent about how increasing capital requirements and making models in scenarios less predictable can reduce lending and access to capital.

First question to you, Mr. Campbell. If the Fed decides to broaden the scope of stress-test scenarios without making them more transparent, can you elaborate on how this decision could change stress capital buffer requirements?

Mr. CAMPBELL. Sure. So you have in mind the idea that the Federal Reserve would use more and different kinds of scenarios rather than a single scenario, just to make sure I understand the question?

Mrs. KIM. To me, it seems that it could make them less predictable. So, if—

Mr. CAMPBELL. Yep.

Mrs. KIM [continuing]. multiple stress-test scenarios make capital requirements less predictable—

Mr. CAMPBELL. Yes.

Mrs. KIM [continuing]. how can that influence lending to small businesses and families?

I ask this because my fear is that, with high interest rates, mortgages and other financial tools, that will increase in cost due to unpredictability of stress tests.

Mr. COVAS, do you have anything to add to this question?

Mr. COVAS. Sure. I would just add that, if you are increasing scope regarding stress-test results, the banks will want to hold more capital as a precautionary buffer. As I said earlier, no bank wants to be below their minimums by the time the requirements go live. So, yes, that will reduce credit availability and provision of capital to markets.

Mrs. KIM. Thank you.

We understand that Basel III Endgame proposal would increase the capital banks must hold with respect to market risk and this is the same risk that is being stress-tested in the global market shock component. I would say that this sounds like double counting of these risks to me.

I know Chairman Barr touched on the double-counting aspect. So if you could tweak either the market risk component of the Basel III proposal or the global market shock component, which one of the two components do you find less necessary and would you eliminate one or both?

Mr. COVAS. I mean, I can answer.

Mrs. KIM. Mr. Covas, uh-huh?

Mr. COVAS. I mean, we were disappointed in terms of the Basel proposal. You want to look holistically about the requirements and look at the requirements at the product level and see which ones are in excess. I think you want to address both of the requirements, potentially.

So the current—the existing market risk framework has some flaws for which the Fed, through the stress test, has enumerated some of those flaws through the global market shock. The new proposal fixes some of those flaws.

So I do think you ought to go back to the global market shock and make some adjustments so that ultimately you are not over-capitalizing for market risk.

Mrs. KIM. Mr. Campbell, could you add to that, please?

Mr. CAMPBELL. I mean, I would broadly agree with that sentiment.

I think the most important thing to ensure is that the global market shock and the treatment of market risk assets in the context of Basel III Endgame work in a conceptually consistent and logical manner and that they do not, basically, work at cross-purposes with each other. I think that is part of what is going on in the current regime.

Mrs. KIM. Well, let me move on to another matter. It has been suggested that being more transparent with models and scenarios could lead to gaming and that it could be like the teacher revealing the questions to the students before the exam.

Mr. COVAS, do you think the Federal Reserve Board revealing methodologies and increasing public engagement on the stress-test framework would lead to banks gaming the stress test?

Mr. COVAS. As we discussed in the hearing, no. I mean, again, this is—the stress tests are a capital rule. The banks need to allocate the portfolio allocation of capital through the different products they offer. They need to know what the capital requirement is.

You know, banks change their portfolios driven by business decisions and market demand, not because they want to game or reduce the capital charge in the stress tests.

Mrs. KIM. Uh-huh.

Mr. COVAS. The models, if they are accurate—the banks have no incentive to game accurate models. If they are inaccurate, they should be put out for notice and comment to fix the models.

Finally, the Fed already has processes in place to look at banks' exposures through the global market shock. Again, these allow—they have been doing that for the last at least 3 or 4 years, where they look carefully at banks' exposures and if they think the banks are—some of the exposures are just to reduce the charge in the stress test, they are disallowed. So I think—

Mrs. KIM. Mr. Campbell, on the same topic, can you explain why it is difficult to game stress tests when you are talking about hundreds of billions in the balance sheet of a bank?

Mr. CAMPBELL. Sure.

So I think, again, this notion of gaming the stress test is largely a misnomer. What banks are doing is, they are using the information that they have access to in the risk weights, in the context of things like the GSIB capital surcharge, and, in principle, in the context of the stress test, to assess the riskiness of the assets on their balance sheet and then make funding decisions on a relevant basis in concert with the other information that they bring to the table in the context of their own risk management decisions. The better information that they have access to, the more complete that information, the better risk management decision that they can make.

To the extent—as Francisco and others have pointed out, to the extent that the Federal Reserve is concerned about some sort of gaming activities or something else, they have a variety of remedies at their disposal that they can use through the supervisory process—

Chairman BARR. The—

Mr. CAMPBELL [continuing]. to deal with that.

Mrs. KIM. Thank you.

Mr. CAMPBELL. They do not need to limit the transparency in the stress-testing regime to deal with that issue.

Mrs. KIM. I yield back my time.

Chairman BARR. The gentlewoman's time has expired.

The gentlelady from Massachusetts, Ms. Pressley, is now recognized. This will be the last questioner of the hearing.

Ms. PRESSLEY. Thank you, Mr. Chair.

Thank you to our witnesses for joining us today.

The 2008 financial crisis exposed the weaknesses and vulnerabilities in our financial system, causing a recession that robbed an entire generation of economic opportunity and many are still reeling from these effects.

The modern stress-testing regime that regulators use today was born out of that crisis and is now a staple of our regulatory framework and oversight of banks.

My Republican colleagues, however, want to go beyond the roll-back of Dodd-Frank in 2018 that directly led to the collapse of Silicon Valley Bank (SVB) and other banks last year. They want to continue down a path of deregulation that will undoubtedly increase systemic risk in our financial system and increase economic harm to our constituents. Make it make sense.

Mr. Feldberg, how did regular stress testing restore confidence in the banking sector following the 2008 financial crisis?

Mr. FELDBERG. So, in the middle of the financial crisis, there was widespread concern about the capital of all the largest banks in the U.S., and I think there was just a lack of belief in regulatory capital information that was out there. There was a lack of confidence in the measure of capital.

So the point of the stress test was to throw a very difficult scenario at the banks and to ask the question, what would happen if this thing got even worse than it is? I think it was seen as a very credible test. The important thing, really, was that it be seen as credible by the markets.

The results showed some banks passed, some banks failed. Banks went ahead and raised capital in an environment in which confidence was improving. I guess there was some luck that they were able to raise capital and only a small number of banks ended up really failing the test.

It was a—it was a remarkable opportunity to address the crisis and get it going—

Ms. PRESSLEY. Thank you.

Mr. FELDBERG [continuing]. get things going again.

Ms. PRESSLEY. Thank you.

Again, deregulation is a failed approach. Yet bank lobbyists are continuing to push for less stringent oversight. My colleagues across the aisle are working with big banks to publicly reveal the mechanics behind stress testing. This is not a pro-transparency, good-governance argument. They simply want to help banks game the system and circumvent oversight.

Mr. Feldberg, in 2019, the Fed provided details to banks about how they conduct stress tests, and this diminished the value of those tests.

If the Fed reveals even more information—just building upon what we have been talking about today; please expound—would

that not allow banks to game the tests, undermining the very purpose of examining how resilient and prepared banks are for unexpected shocks to the financial system?

Mr. FELDBERG. The banks spend a great deal of money trying to reverse-engineer the stress tests, and do not think they do that for any other reason than trying to game the process.

They can already do a petty good job of reverse-engineering because they already get more information about the stress-test models than any other country gives their banks.

If they got what is being asked for today, it would emasculate the process, and we would have something similar to what OFHEO had with the GSEs—an ineffective process that does not keep up with changes in the financial system.

Ms. PRESSLEY. Thank you.

Mr. FELDBERG. I would like to—I mean, just—an argument that came up earlier was, why do we not reveal these things after the test? I would discourage that idea from going much further.

As I keep on saying, we actually do disclose a great deal already, so the difference in what we would be disclosing after and before the release of the results is not very much, but it is that one little secret sauce that prevents the banks from essentially just replicating the models and baking grandma's cake, and then you just—you do not have a test anymore.

Ms. PRESSLEY. Thank you.

When implementing stress tests, regulators should be prioritizing what is best for consumers and the stability of our financial system, not the desires of greedy bank CEOs.

If Republicans and big banks want greater transparency, then they should practice what they preach. I have a long list of areas where banks should be more transparent: the use of AI in decision-making, their investments in mass incarceration, the funding of fossil-fuel projects that kill our environment, the denials of mortgages and business loans to disproportionately Black and Brown communities, and so much more.

The Fed should not give away the answer key to stress testing. After witnessing some of the largest bank failures in our history last year, our response cannot be further deregulation that weakens our banking system. We need meaningful and stringent stress tests for a safer and more stable financial system.

Thank you. I yield.

Chairman BARR. The gentlelady yields.

I would like to thank our witnesses for their testimony today.

As a matter of a concluding observation, I would just say that I thought we had great testimony, great points made by all of our witnesses. My takeaway is that we can have more transparency in stress testing, we can reduce the opacity. We can do that certainly on the input side of things to provide the accountability, to improve the process, to improve the actual stress testing itself and we do not have to do it in a way that would create the risks that Mr. Feldberg pointed out on the outputs.

I think he makes a good point, that the goal should be to reveal just enough about banks to help market participants evaluate risk but not so much to undermine confidence. I think improving transparency at the front end does not necessarily have to lead to under-

mining confidence on the back end, and results of stress tests can be disclosed to the supervised institution so that they can evaluate those risks without undermining confidence.

So, with that, I appreciate the testimony. I think this was a great hearing.

Without objection, all members will have 5 legislative days within which to submit additional written questions for the witnesses to the chair, which will be forwarded to the witnesses for their response. I ask our witnesses to please respond as promptly as you are able.

[The information referred to can be found in the appendix.]

Chairman BARR. This hearing is now adjourned.

[Whereupon, at 3:41 p.m., the subcommittee was adjourned.]

A P P E N D I X

June 26, 2024



Submission for the Record by the Securities Industry and Financial Markets

Association

before the U.S. House of Representatives'

Financial Institutions and Monetary Policy Subcommittee

Hearing entitled "Stress Testing: What's Inside the Black Box?"

June 26, 2024

Executive Summary

- Large banks are critical intermediaries in our capital markets, which fund roughly three quarters of all economic activity in the U.S. The small businesses, consumers, and savers who benefit directly and indirectly from bank involvement in U.S. capital markets are negatively affected by excessive capital requirements, including those resulting from the Global Market Shock (“GMS”) component of the stress tests that the Federal Reserve Board (the “Board”) uses to determine large banks’ Stress Capital Buffers (“SCB”), which would be compounded by the market risk component of the Basel III Endgame proposal, known as the Fundamental Review of the Trading Book (“FRTB”).
- The Board’s stress testing policy statement requires the GMS to be “hypothetical but plausible”; however, it does not specify any quantitative thresholds for plausibility. And it is not clear how the Board designs the GMS scenarios annually. This lack of transparency makes it difficult for regulated firms and the public to fully understand how the Board arrives at its stress test results.
- A 2019 SIFMA study demonstrated that the GMS scenarios were practically implausible, which leads to excessive GMS loss estimate resulting in excessive and volatile capital requirements for large banks – severely constraining large banks’ ability to support the U.S. capital markets. The proposed FRTB framework under the Basel III Endgame would further exacerbate the negative effects of the GMS.
- SIFMA believes that the Board should either eliminate the GMS component of the supervisory stress test or significantly adapt it with the following three solutions that would take into account the FRTB framework and reflect severe but plausible market shock scenarios: (1) remove the GMS from the SCB; (2) recalibrate the GMS scenarios to ensure it is practically plausible; and (3) apply the GMS and the FRTB sequentially.

Introduction

The Securities Industry and Financial Markets Association (“SIFMA”)¹ and its member firms appreciate the opportunity to submit our perspectives on the supervisory stress tests conducted by the Board as required by Section 165 of the Dodd Frank Act. We are writing specifically to express our concerns regarding the negative effects on credit availability of the GMS component of the stress testing framework and the FRTB framework in the Basel III Endgame proposal. In particular, the GMS scenarios are empirically implausible and result in excessive levels of capital for large U.S. banks’ capital markets activities. The proposed FRTB framework would further and severely constrain large banks’ ability to intermediate U.S. capital markets, leading to higher costs and reduced availability of capital markets products and services to businesses and consumers.² Thus, SIFMA believes that the Board should re-propose the Basel III Endgame considering holistically the role of the GMS and the FRTB.

GMS Shocks Are Empirically Implausible

The GMS scenario is a set of hypothetical severely adverse shocks to a large set of risk factors reflecting general market distress and heightened uncertainty. Banks with significant trading activity must consider the GMS in their stress tests as a part of the supervisory severely adverse scenario.

¹ SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry’s nearly 1 million employees, we advocate for legislation, regulation and business policy, affecting retail and institutional investors, equity and fixed income markets and related products and services. We serve as an industry coordinating body to promote fair and orderly markets, informed regulatory compliance, and efficient market operations and resiliency. We also provide a forum for industry policy and professional development. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit <http://www.sifma.org>.

² The conceptual and practical overlaps between the FRTB and the GMS are discussed in this SIFMA blog, *Explaining the Overlap Between the FRTB and the Global Market Shock* (May 30, 2023), <https://www.sifma.org/resources/news/explaining-the-overlap-between-the-frtb-and-the-global-market-shock/>.

As a key component of the projected total stress losses that are used to determine SCB requirements, the losses associated with the GMS are recognized in the first quarter of the scenario and are carried through all subsequent quarters.

For the GMS scenarios, the Board's Policy Statement on the Scenario Design Framework for Stress Testing requires that the Board consider "hypothetical but plausible outcomes."³ However, the Board has not adopted any quantitative thresholds for determining what severely adverse scenario shocks are "plausible" in the GMS component.

In 2019, SIFMA conducted a study to assess the plausibility of the GMS shocks.⁴ The study evaluated the probability of various GMS shocks in the prior years and found that, in many cases, the statistical probability of a GMS shock is extremely low. For example, the statistical probability of 2019 GMS spreads for certain corporate bonds occurring was 0.001%. Since the Board generally calibrates the GMS shocks based on the assumption of a holding period of three months or longer (see the 2024 Stress Test Scenarios document for details⁵), the probability of 0.001% corresponds to at least a one-in-forty thousand-year event. Should this type of event be deemed to be "plausible" within the meaning of the Board's scenario design standard? Such events generally would be considered implausible, at least in a statistical sense.

³ 12 C.F.R. § 252, Appendix A 5.2.3 (c), <https://www.ecfr.gov/current/title-12/chapter-II/subchapter-A/part-252/appendix-Appendix%20A%20to%20Part%20252>.

⁴ *Global Market Shock and Large Counterparty Default Study: Recommendations for Reforms Based on a Statistical Analysis of Stress Testing Scenarios* (August 2019), <https://www.sifma.org/wp-content/uploads/2019/09/SIFMA-GMS-LCD-Study-FINAL.pdf>.

⁵ <https://www.federalreserve.gov/publications/files/2024-stress-test-scenarios-20240215.pdf>

Practical Implications of Implausible GMS Shocks

In the United States, capital markets fund approximately three quarters of all economic activities, and large banks play a crucial role in intermediating those markets. The design of the GMS has not been reviewed or adapted by the Board since late 2010 when the supervisory market risk stress test was formalized as the GMS under the CCAR process. It has been a major source of volatility in the projected stress losses largely because of its wildly implausible, arbitrary scenarios (e.g., all markets heading in one direction at the same time), which could give rise to misleading results in terms of the plausible, real world market risks that banks face – raising doubts about whether it performs any appropriate supervisory function.

The implausibility of GMS shocks and the variability from one year to the next results in both excessive levels of capital and excessive volatility in the resulting capital requirements for large U.S. banks from year-to-year.⁶ For instance, the Board's 2023 stress test exercise indicates that the GMS losses accounted for nearly one fifth of total projected stress losses.⁷

The GMS losses estimate is a key driver of the resulting SCB requirements for large banks. The SCB was designed to replace the Capital Conservation Buffer ("CCB") in the Basel international standards. But the SCB went above and beyond the CCB; while the latter is fixed at 2.5%, the former can be *no lower* than 2.5%. Under the current U.S. capital rule, the SCB is applicable to the U.S.

⁶ For more details, see SIFMA blogs, *Explaining the Overlap Between the FRTB and the Global Market Shock*, <https://www.sifma.org/resources/news/explaining-the-overlap-between-the-frtb-and-the-global-market-shock/>, and *US Stress test Capital Requirements Are Excessively Volatile and Overestimate Losses*, <https://www.sifma.org/resources/news/u-s-stress-test-capital-requirements-are-excessively-volatile-and-over-estimate-losses-identifying-the-problem-and-how-to-solve-it/>.

⁷ <https://www.federalreserve.gov/publications/files/2023-dfast-results-20230628.pdf>

standardized approach, which is the binding capital constraint for many large U.S. banks. Therefore, as a result of the GMS, large banks' ability to support U.S. capital markets is already severely constrained.

The Proposed FRTB Framework Would Further Exacerbate the Negative Impacts of the GMS

The proposed FRTB framework contained in the banking agencies' Basel III Endgame Proposal is expected to increase capital requirements for large banks' trading activities by roughly 75% to over 100%, depending on whether the bank is using a modelled approach or the standardized approach. The combined effect of the GMS component and the proposed FRTB framework would lead to capital requirements exceeding the maximum possible economic losses on many positions, e.g., securitization positions. This is a clear indication that the capital requirements are not commensurate with risks and are overly conservative. The securitization market is a crucial funding source for American consumers.⁸

Recommendations

To mitigate the above impacts, SIFMA recommends that the Board either eliminate the GMS component of the supervisory stress test or significantly adapt it with the following three solutions that would approach the GMS and the FRTB in a holistic manner and ensure that capital requirements for large banks' capital markets activities are commensurate with their risks:

- 1. Remove the GMS from the SCB.** Because the potential losses on trading activities under severe market stress are already capitalized adequately by the FRTB, the GMS component becomes

⁸ For more details, see SIFMA blog, *How the Basel III Endgame Could Impair Securitization Markets and Harm US Businesses and Consumers*, <https://www.sifma.org/resources/news/how-the-basel-iii-endgame-could-impair-securitization-markets-and-harm-us-businesses-and-consumers/>.

duplicative and redundant. As a result, the most effective way of addressing this problem would be to remove the GMS component from the SCB altogether.

2. **Redesign the GMS to be reasonably plausible.** If the Board insists on retaining the GMS, the Board should make the GMS shocks reasonably plausible and ensure that they are supported by empirical evidence.
3. **Apply the GMS and the FRTB sequentially.** Instead of applying the FRTB and the GMS separately and summing up the resulting capital requirements as envisaged by the U.S. Basel III Endgame Proposal, the Board should apply the GMS and the FRTB sequentially. This approach is consistent with the SCB's objective that banks' capital levels still exceed the minimum requirement even after sustaining a severe market downturn.

Conclusion

In conclusion, we applaud the House Financial Services Committee's Subcommittee on Financial Institutions and Monetary Policy for holding this critical hearing on improving the Board's stress testing framework. We appreciate your review of our suggested proposals, which would mitigate the negative consequences of the stress testing framework, especially its GMS component, on the U.S. capital markets and American businesses and households that depend on them for access to affordable credit.

August 12, 2024

The Honorable Patrick McHenry
Chair, House Financial Services Committee
2129 Rayburn House Office Building
Washington, DC 20515

Dear Chair McHenry,

Attached are my responses to the Questions for the Record submitted following the hearing held by the House Financial Services Subcommittee on Financial Institutions and Monetary Policy held on June 26, 2024 titled "Stress Testing: What's Inside the Black Box?"

Waters Question 1: Which of the following options best describes your self-identified race?

Answer: a. White or Caucasian

Waters Question 2: Which of the following options describes your gender identity?

Answer: b. Man

Thank you again for holding this important hearing.

A handwritten signature in blue ink that reads "Francisco Covas".

Sincerely,

Francisco Covas
EVP and Head of Research
Bank Policy Institute

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[DISCUSSION DRAFT]118TH CONGRESS
2D SESSION**H. R.** _____

To amend the Federal Financial Institutions Examination Council Act of 1978 to improve the examination of depository institutions, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. HILL introduced the following bill; which was referred to the Committee on _____

A BILL

To amend the Federal Financial Institutions Examination Council Act of 1978 to improve the examination of depository institutions, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SECTION 1. SHORT TITLE.

4 This Act may be cited as the “Fair Audits and In-
5 spections for Regulators’ Exams Act”.

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1 **SEC. 2. TIMELINESS OF EXAMINATION REPORTS.**

2 The Federal Financial Institutions Examination
3 Council Act of 1978 (12 U.S.C. 3301 et seq.) is amended
4 by adding at the end the following:

5 **“SEC. 1012. TIMELINESS OF EXAMINATION REPORTS.**

6 “(a) IN GENERAL.—

7 “(1) FINAL EXAMINATION REPORT.—A Federal
8 financial institutions regulatory agency shall provide
9 a final examination report to a financial institution
10 not later than 60 days after the later of—

11 “(A) the exit interview for an examination
12 of the institution; or

13 “(B) the provision of additional material
14 information by the institution relating to the
15 examination.

16 “(2) EXIT INTERVIEW.—If a financial institu-
17 tion is not subject to a resident examiner program,
18 the exit interview shall occur not later than the end
19 of the 9-month period beginning on the commence-
20 ment of the examination, except that such period
21 may be extended by the Federal financial institu-
22 tions regulatory agency by providing written notice
23 to the institution and the Director describing with
24 particularity the reasons that a longer period is
25 needed to complete the examination.

1 “(b) EXAMINATION MATERIALS.—Upon the request
2 of a financial institution, the Federal financial institutions
3 regulatory agency shall include with the final report an
4 appendix listing all examination or other factual informa-
5 tion relied upon by the agency in support of a material
6 supervisory determination.”.

7 **SEC. 3. INDEPENDENT EXAMINATION REVIEW DIRECTOR.**

8 (a) IN GENERAL.—The Federal Financial Institu-
9 tions Examination Council Act of 1978 (12 U.S.C. 3301
10 et seq.), as amended by section 2 of this Act, is further
11 amended by adding at the end the following:

12 **“SEC. 1013. OFFICE OF INDEPENDENT EXAMINATION RE-**
13 **VIEW.**

14 “(a) ESTABLISHMENT.—There is established in the
15 Council an Office of Independent Examination Review.

16 “(b) HEAD OF OFFICE.—There is established the po-
17 sition of the Independent Examination Review Director,
18 as the head of the Office of Independent Examination Re-
19 view. The Director shall be appointed by the President,
20 by and with the advice and consent of the Senate.

21 “(c) STAFFING.—The Director is authorized to hire
22 staff to support the activities of the Office of Independent
23 Examination Review. One-fourth of the costs and expenses
24 of the Office, including the salaries of its employees, shall
25 be paid by each of the Federal financial institutions regu-

1 latory agencies. Annual assessments for such share shall
2 be levied by the Council based upon its projected budget
3 for the year, and additional assessments may be made dur-
4 ing the year if necessary.

5 “(d) DUTIES.—The Director shall—

6 “(1) receive and, at the discretion of the Direc-
7 tor, investigate complaints from financial institu-
8 tions, their representatives, or another entity acting
9 on behalf of such institutions, concerning examina-
10 tions, examination practices, or examination reports;

11 “(2) hold meetings, at least once every three
12 months and in locations designed to encourage par-
13 ticipation from all sections of the United States,
14 with financial institutions, their representatives, or
15 another entity acting on behalf of such institutions,
16 to discuss examination procedures, examination
17 practices, or examination policies;

18 “(3) review examination procedures of the Fed-
19 eral financial institutions regulatory agencies to en-
20 sure that the written examination policies of those
21 agencies are being followed in practice and adhere to
22 the standards for consistency, which shall be estab-
23 lished, after notice and opportunity for comment, by
24 the Council not later than 90 days after the date of
25 enactment of this section;

1 “(4) conduct a continuing and regular program
2 of examination quality assurance for all examination
3 types conducted by the Federal financial institutions
4 regulatory agencies;

5 “(5) adjudicate any supervisory appeal initiated
6 under section 1014; and

7 “(6) report annually to the Committee on Fi-
8 nancial Services of the House of Representatives, the
9 Committee on Banking, Housing, and Urban Affairs
10 of the Senate, and the Council, on the reviews car-
11 ried out pursuant to paragraphs (3) and (4), includ-
12 ing compliance with the requirements set forth in
13 section 1012 regarding timeliness of examination re-
14 ports, and the Council’s recommendations for im-
15 provements in examination procedures, practices,
16 and policies.

17 “(e) CONFIDENTIALITY.—The Director shall keep
18 confidential all meetings, discussions, and information
19 provided by financial institutions. The Council shall keep
20 confidential all information and communications ex-
21 changed by a financial institution and the Office of Inde-
22 pendent Examination Review.”.

23 (b) DEFINITION.—Section 1003 of the Federal Fi-
24 nancial Institutions Examination Council Act of 1978 (12
25 U.S.C. 3302) is amended—

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1 (1) in paragraph (2), by striking “and” at the
2 end;

3 (2) in paragraph (3), by adding “and” at the
4 end; and

5 (3) by adding at the end the following:

6 “(4) the term ‘Director’ means the Independent
7 Examination Review Director established under sec-
8 tion 1013(a) and (b).”.

9 **SEC. 4. RIGHT TO INDEPENDENT REVIEW OF MATERIAL SU-**
10 **PERVISORY DETERMINATIONS.**

11 The Federal Financial Institutions Examination
12 Council Act of 1978, as amended by sections 2 and 3 of
13 this Act, is further amended by adding at the end the fol-
14 lowing:

15 **“SEC. 1014. RIGHT TO INDEPENDENT REVIEW OF MATERIAL**
16 **SUPERVISORY DETERMINATIONS.**

17 “(a) IN GENERAL.—A financial institution shall have
18 the right to obtain an independent review of a material
19 supervisory determination contained in a final report of
20 examination.

21 “(b) NOTICE.—

22 “(1) TIMING.—A financial institution seeking
23 review of a material supervisory determination under
24 this section shall file a written notice with the Direc-

1 tor within 60 days after receiving the final report of
2 examination that is the subject of such review.

3 “(2) IDENTIFICATION OF DETERMINATION.—
4 The written notice shall identify the material super-
5 visory determination that is the subject of the inde-
6 pendent examination review, and a statement of the
7 reasons why the institution believes that the deter-
8 mination is incorrect or should otherwise be modi-
9 fied.

10 “(3) INFORMATION TO BE PROVIDED TO INSTI-
11 TUTION.—Any information relied upon by the agen-
12 cy in the final report that is not in the possession
13 of the financial institution may be requested by the
14 financial institution and shall be delivered promptly
15 by the agency to the financial institution.

16 “(c) RIGHT TO HEARING.—

17 “(1) IN GENERAL.—The Director shall—

18 “(A) determine the merits of the appeal on
19 the record; or

20 “(B) at the election of the financial institu-
21 tion, refer the appeal to an administrative law
22 judge appointed by the Council to conduct a
23 hearing pursuant to the procedures set forth
24 under sections 556 and 557 of title 5, United
25 States Code, which shall take place not later

1 than 60 days after the petition for review is re-
2 ceived by the Director.

3 “(2) TIMING OF DECISION.—An administrative
4 law judge conducting a hearing under paragraph
5 (1)(B) shall issue a proposed decision to the Direc-
6 tor based upon the record established at the hearing.

7 “(3) STANDARD OF REVIEW.—In any hearing
8 under this subsection—

9 “(A) neither the administrative law judge
10 nor the Director shall defer to the opinions of
11 the examiner or agency, but shall independently
12 determine the appropriateness of the agency’s
13 decision based upon the relevant statutes, regu-
14 lations, other appropriate guidance, and evi-
15 dence presented at the hearing.

16 “(d) FINAL DECISION.—A decision by the Director
17 on an independent review under this section shall—

18 “(1) be made not later than 60 days after the
19 record has been closed; and

20 “(2) be deemed final agency action and shall
21 bind the agency whose supervisory determination
22 was the subject of the review and the financial insti-
23 tution requesting the review.

24 “(e) RIGHT TO JUDICIAL REVIEW.—A financial insti-
25 tution shall have the right to petition for review of the

1 decision of the Director under this section by filing a peti-
2 tion for review not later than 60 days after the date on
3 which the decision is made in the United States Court of
4 Appeals for the District of Columbia Circuit or the Circuit
5 in which the financial institution is located.

6 “(f) REPORT.—The Director shall report annually to
7 the Committee on Financial Services of the House of Rep-
8 resentatives, the Committee on Banking, Housing, and
9 Urban Affairs of the Senate on actions taken under this
10 section, including the types of issues that the Director has
11 reviewed and the results of those reviews. In no case shall
12 such a report contain information about individual finan-
13 cial institutions or any confidential or privileged informa-
14 tion shared by financial institutions.

15 “(g) RETALIATION PROHIBITED.—A Federal finan-
16 cial institutions regulatory agency may not—

17 “(1) retaliate against a financial institution, in-
18 cluding service providers, or any institution-affiliated
19 party, for exercising appellate rights under this sec-
20 tion; or

21 “(2) delay or deny any agency action that
22 would benefit a financial institution or any institu-
23 tion-affiliated party on the basis that an appeal
24 under this section is pending under this section.”.

1 **SEC. 5. ADDITIONAL AMENDMENTS.**

2 (a) REGULATOR APPEALS PROCESS, OMBUDSMAN,
3 AND ALTERNATIVE DISPUTE RESOLUTION.—

4 (1) IN GENERAL.—Section 309 of the Riegle
5 Community Development and Regulatory Improve-
6 ment Act of 1994 (12 U.S.C. 4806) is amended—

7 (A) in subsection (a), by inserting after
8 “appropriate Federal banking agency” the fol-
9 lowing: “, the Bureau of Consumer Financial
10 Protection,”;

11 (B) in subsection (b)—

12 (i) by redesignating paragraphs (1)
13 and (2) as subparagraphs (A) and (B) and
14 indenting appropriately;

15 (ii) in the matter preceding subpara-
16 graph (A) (as redesignated), by striking
17 “In establishing” and inserting “(1) IN
18 GENERAL.—In establishing”;

19 (iii) in paragraph (1)(B) (as redesi-
20 gated), by striking “the appellant from re-
21 taliation by agency examiners” and insert-
22 ing “the insured depository institution or
23 insured credit union from retaliation by an
24 agency referred to in subsection (a)”;

25 (iv) by adding at the end the fol-
26 lowing:

- 1 “(2) RETALIATION.—For purposes of this sub-
- 2 section and subsection (e), retaliation includes delay-
- 3 ing consideration of, or withholding approval of, any
- 4 request, notice, or application that otherwise would
- 5 have been approved, but for the exercise of the insti-
- 6 tution’s or credit union’s rights under this section.”;
- 7 (C) in subsection (e)(2)—
- 8 (i) in subparagraph (B), by striking
- 9 “and” at the end;
- 10 (ii) in subparagraph (C), by striking
- 11 the period and inserting “; and”; and
- 12 (iii) by adding at the end the fol-
- 13 lowing:
- 14 “(D) ensure that appropriate safeguards
- 15 exist for protecting the insured depository insti-
- 16 tution or insured credit union from retaliation
- 17 by any agency referred to in subsection (a) for
- 18 exercising its rights under this subsection.”;
- 19 and
- 20 (D) in subsection (f)(1)(A)—
- 21 (i) in clause (ii), by striking “; and”
- 22 and inserting a semicolon;
- 23 (ii) in clause (iii), by striking “; and”
- 24 and inserting a semicolon; and

1 (iii) by adding at the end the fol-
2 lowing:

3 “(iv) any issue specifically listed in an
4 exam report as a matter requiring atten-
5 tion by the institution’s management or
6 board of directors; and

7 “(v) any suspension or removal of an
8 institution’s status as eligible for expedited
9 processing of applications, requests, no-
10 tices, or filings on the grounds of a super-
11 visory or compliance concern, regardless of
12 whether that concern has been cited as a
13 basis for a material supervisory determina-
14 tion or matter requiring attention in an ex-
15 amination report, provided that the con-
16 duct at issue did not involve violation of
17 any criminal law; and”.

18 (2) EFFECT.—Nothing in this subsection af-
19 fects the authority of an appropriate Federal bank-
20 ing agency or the National Credit Union Adminis-
21 tration Board to take enforcement or other super-
22 visory action.

23 (b) FEDERAL CREDIT UNION ACT.—Section 205(j)
24 of the Federal Credit Union Act (12 U.S.C. 1785(j)) is
25 amended by inserting “the Bureau of Consumer Financial

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1 Protection,” before “the Administration” each place that
2 term appears.

3 (c) FEDERAL FINANCIAL INSTITUTIONS EXAMINA-
4 TION COUNCIL ACT.—The Federal Financial Institutions
5 Examination Council Act of 1978 (12 U.S.C. 3301 et
6 seq.), as amended by sections 2 through 4 of this Act,
7 is further amended—

8 (1) in section 1003 (12 U.S.C. 3302) by strik-
9 ing paragraph (1) and inserting the following:

10 “(1) the term ‘Federal financial institutions
11 regulatory agencies’—

12 “(A) means the Office of the Comptroller
13 of the Currency, the Board of Governors of the
14 Federal Reserve System, the Federal Deposit
15 Insurance Corporation, and the National Credit
16 Union Administration; and

17 “(B) includes the Bureau of Consumer Fi-
18 nancial Protection for purposes of sections
19 1012 through 1014;”; and

20 (2) in section 1005 (12 U.S.C. 3304), by strik-
21 ing “One-fifth” and inserting “One-fourth”.

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(Original Signature of Member)

118TH CONGRESS
2D SESSION**H. R.** _____

To amend the Federal Reserve Act to add requirements to the annual report of the Board of Governors of the Federal Reserve System, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. WILLIAMS of Texas introduced the following bill; which was referred to the Committee on _____

A BILL

To amend the Federal Reserve Act to add requirements to the annual report of the Board of Governors of the Federal Reserve System, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Federal Reserve Fi-
5 nancial Accountability and Transparency Act”.

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1 SEC. 2. REPORTING REQUIREMENTS WITH RESPECT TO
2 THE ANNUAL REPORT OF THE BOARD OF
3 GOVERNORS OF THE FEDERAL RESERVE SYS-
4 TEM.

5 (a) IN GENERAL.—The 7th undesignated paragraph
6 of section 10 of the Federal Reserve Act (12 U.S.C. 247)
7 is amended—

8 (1) by striking “The Board” and inserting the
9 following:

10 “(7) ANNUAL REPORT.—

11 “(A) IN GENERAL.—The Board”; and

12 (2) by adding at the end the following:

13 “(B) REPORT REQUIREMENTS.—The re-
14 port required under subparagraph (A) shall in-
15 clude the following:

16 “(i) Annual expenditures and full-time
17 equivalent employees for each Federal re-
18 serve bank with respect to each of the fol-
19 lowing categories:

20 “(I) Supervision activities of fi-
21 nancial institutions.

22 “(II) Legal functions.

23 “(III) Operations of the Federal
24 reserve bank, including currency serv-
25 ices, automated clearing house serv-

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1 ices, check clearing services, and
2 wholesale payment services.

3 “(IV) Financial stability and
4 open market operations.

5 “(V) Administrative functions,
6 including human resources, account-
7 ing, and information technology.

8 “(VI) Economic research.

9 “(VII) Any engagement with
10 international cooperative bodies, in-
11 cluding the Bank for International
12 Settlements, the Basel Committee on
13 Banking Supervision, and the Net-
14 work for Greening the Financial Sys-
15 tem.

16 “(ii) The 3 most important areas of
17 research, as measured by annual expendi-
18 tures and full-time equivalent employees,
19 for the Board of Governors of the Federal
20 Reserve System and for each Federal re-
21 serve bank.

22 “(iii) The annual expenditures in the
23 previous year dedicated to each rule, guid-
24 ance, and policy statement that was pro-
25 posed or finalized.”.

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1 (b) EFFECTIVE DATE.—The amendments made by
2 this Act shall take effect on the date that is 2 years after
3 the date of the enactment of this Act.

