STANFORD UNIVERSITY
STANFORD CA 94305

ANAT R. ADMATI
THE GEORGE G.C. PARKER PROFESSOR OF FINANCE AND ECONOMICS
GRADUATE SCHOOL OF BUSINESS

PAUL PFLEIDERER
THE C.O.G. MILLER DISTINGUISHED PROFESSOR OF FINANCE
GRADUATE SCHOOL OF BUSINESS

AMIT SERU
THE STEVEN AND ROBERTA DENNING PROFESSOR OF FINANCE AND SENIOR FELLOW
GRADUATE SCHOOL OF BUSINESS AND HOOVER INSTITUTION

January 22, 2019

Legislative and Regulatory Activities Division
Office of the Comptroller of the Currency
400 7th Street, S.W.
Suite 3E-218
Washington, D.C. 20219
Docket ID OCC–2018–0037

Robert E. Feldman
Executive Secretary
Attention: Comments/Legal ESS
Federal Deposit Insurance Corporation
550 17th Street, N.W.
Washington, D.C. 20429
RIN 3064–AE96

Ann E. Misback
Secretary
Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue, N.W.
Washington, D.C. 20551
Docket No. R–1627; RIN 7100–AF20
Docket No. R–1628; RIN 7100–AF21

Re: Proposed Changes to Applicability Thresholds for Regulatory Capital and Liquidity Requirements; Prudential Standards for Large Bank Holding Companies and Savings and Loan Holding Companies

Ladies and Gentlemen:

We write today to comment on both the interagency proposal to amend bank capital and liquidity rules and the Federal Reserve's proposal to change the thresholds for certain other bank holding company (BHC) standards.

We would like to make three key points:

1. Attempts to reliably assess the systemic risk of large, highly-leveraged and complex financial institutions are problematic and inadequate as a guide to policy given what is at stake and the significant benefits of simple steps that can be taken at little cost to strengthen the system;

2. Rather than relaxing capital rules for a set of banks and bank holding companies, the agencies should strengthen capital for all banks and all bank holding companies; and
3. Rather than relaxing stress tests for a set of banks and bank holding companies, the Federal Reserve should institute *market-based* stress tests for large banks and bank holding companies and allow equity investors rather than models involving numerous assumptions to determine their strength and ability to absorb losses.

We are also attaching a letter we and our colleague John Cochrane sent to the Senate Banking Committee, expressing our concerns with S. 2155, many of which also apply to your proposed regulations.

1. **Attempts to reliably assess the systemic risk of large, highly leveraged and complex financial institutions are problematic and inadequate as a guide to policy given what is at stake and the significant benefits of simple steps that can be taken at little cost to strengthen the system.**

The proposal attempts to apply "risk-based" indicators to make a complex calculation and then apply complex standards accordingly. This layering of complexity upon complexity is unnecessary and counterproductive.

During the financial crisis of 2008, the U.S. Treasury Department's Troubled Asset Relief Program (TARP) began with the nine largest U.S. financial institutions, but ultimately injected nearly $205 billion in capital into 707 banks of all sizes.[1]

In 2009, 19 BHCs with more than $100 billion in assets were selected to take part in the first round of stress tests. Despite the initial capital injections into BHCs, ten of these 19 companies fell below their minimum capital requirements by a total of over $74 billion. Ultimately, the Treasury Department intervened to support these companies by announcing to the market that additional capital would be made to them available through TARP,[2] thereby explicitly guaranteeing all U.S. banks with over $100 billion in assets.

In 2014, former Federal Reserve Vice Chair Stanley Fischer noted that crises can come in all shapes and sizes: "[T]he savings and loan crisis of the 1980s and 1990s was not a TBTF crisis but rather a failure involving many small firms that were behaving unwisely, and in some cases illegally. This case is consistent with the phrase 'too many to fail.' Financial panics can be caused by herding and by contagion, as well as big banks getting into trouble."[3] To illustrate his point, on July 14, 2008, the Office of Thrift Supervision (OTS) closed Pasadena, California-based IndyMac Bank. With $32 billion in assets, at the time, IndyMac would not have been subject to these rules,

---

[1] *See* Congressional Oversight Panel for TARP, March Oversight Report: the Final Report of the Congressional Oversight Panel 22, 55 Mar. 16, 2011 available at: http://cybercemetery.unt.edu/archive/cop/20110401232213/http://cop.senate.gov/documents/cop-031611-report.pdf.

[2] *See* Joint Statement by Secretary of the Treasury Timothy F. Geithner, Chairman of the Board of Governors of the Federal Reserve System Ben S. Bernanke, Chairman of the Federal Deposit Insurance Corporation Sheila Bair, and Comptroller of the Currency John C. Dugan, The Treasury Capital Assistance Program and the Supervisory Capital Assessment Program, May 6, 2009, available at: http://www.federalreserve.gov/newsevents/press/bcreg/20090506a.htm.

[3] Vice Chair Stanley Fischer, "Financial Reform: How Far Are We?", July 10, 2014, available at: http://www.federalreserve.gov/newsevents/speech/fischer20140710a.pdf.

but its failure cost the FDIC's Deposit Insurance Fund (DIF) in excess of $10 billion, the costliest failure in the FDIC's history. Thus, a system with many small but excessively fragile institutions taking similar risks and likely to fail at the same time can lead to problems that are preventable if regulators act in time. This is essentially the notion of Prompt Corrective Action articulated in the 1991 FDIC Improvement Act (FDICIA), with prompt" being defined as much sooner than the 2% book-based metric specified in that act, by which banks are typically insolvent.

These experiences demonstrate that predicting sources of financial risk is difficult and the recent crisis showed that regulators and other researchers, relying on models that ultimately boil down to a set of assumptions, are not infallible. As former Federal Reserve Governor Tarullo once said, "[j]udging whether a financial firm is systemically important is thus not a straightforward task, especially because a determination must be based on an assessment of whether the firm's failure would likely have systemic effects during a future stress event, the precise parameters of which cannot be fully known."[4] Moreover, regulators involved in supervision may not agree on the condition of a bank's balance sheet and policy levers to use, which is even more likely with complex indicators.[5] Errors from not being able monitor or supervise a complex, interconnected banking system are likely to result in large costs of bank failures.

The agencies should discard this overly complex indicator system, and instead improve capital standards for all banks and bank holding companies, regardless of their size. This simple step has significant benefits and will reduce the administrative burden for the agencies as well as improve the safety of the system, at little cost to the industry and society.

2. **Rather than relaxing capital rules for a set of banks and bank holding companies, the agencies should strengthen capital for <u>all</u> banks and <u>all</u> bank holding companies.**

The proposal would leave some banks over $100 billion in assets merely subject to the Basel III international capital agreement, and other large banks subject to Basel III, plus two inadequate leverage ratios and a currently nonexistent capital "buffer."

Prior to the expansion of safety nets for banking (in the form of central banks, deposit insurance, and implicit guarantees), banks maintained much higher equity levels than they have in recent years. In the partnerships of the 19th century, for example, equity often accounted for 50 percent of banks' assets. In addition, since owners were not protected by limited liability, depositors had recourse to the owners' personal assets if the banks' assets were insufficient. Equity levels of 20 or 30 percent of total assets were common early in the 20th century, and in the U.S. shareholders had double, triple or unlimited liability until deposit insurance was established. As safety nets expanded, depositors and other creditors became less concerned about the credit worthiness of the bank and bank shareholders and managers chose to have much less equity and were able to do so without regulations to counter the incentives.

---

[4] *See* Statement of Governor Daniel K. Tarullo before the Senate Committee on Banking, Housing, and Urban Affairs, July 23, 2009 available at: https://www.banking.senate.gov/imo/media/doc/TarulloTestimony72309.pdf

[5] *See* Committee on Homeland Security and Governmental Affairs (2010) for details on the tussle and on difference in incentives between WaMu's supervisors, the Office of Thrift Supervision and Federal Deposit Insurance Corporation (FDIC), in the run-up to WaMu's failure in September 2008. Volume 2 of 5, Apr. 16, 2010, available at: https://www.govinfo.gov/content/pkg/CHRG-111shrg57320/pdf/CHRG-111shrg57320.pdf. *Also see* Agarwal, Lucca, Seru and Trebbi (2014) on the role of inconsistent regulators in supervision, available here: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1978548

Admati and Hellwig (2013a, Chapter 11) and Admati (2016) summarize the problems with the regulations and propose improvements as well as transition to a better system. Twenty prominent economists (Admati et al, 2010), for example, recommended *at least* fifteen percent, as compared to the 3 percent, in equity relative to total assets required by the 2010 Basel III international accord.[6]

With more equity, banks would be in a better position to serve the economy even after incurring losses without needing support. They will also be less likely to experience liquidity problems and runs, reducing the need for the liquidity coverage ratio (LCR) and the Net Stable Funding Ratio (NSFR). Moreover, when institutions operate with much more equity funding, any loss in the value of the assets is a smaller fraction of the equity, thus there is less need for distressed asset sales (so-called "fire sales"). Better yet, by reducing the intensity of the conflict of interest between banks managers and shareholders on one hand, and their lenders and taxpayers on the other, banks with more equity suffer from fewer distortions in lending decisions, including excessive and inefficient risk-taking and underinvestment in some worthy loans.

More equity also provides the easiest and simplest way to reduce the privileges and outsized power of the largest "systemic" institutions, often referred to as "too big to fail." These institutions are indeed enormously large, complex, and opaque, with assets in the trillions, much larger off-balance sheet exposures, and sprawling operations in many different areas and across the globe. Equity is the simplest, most reliable and most beneficial way to reduce those subsidies while also enhancing the health and safety of the system. Shareholders absorb losses without the need to go through complex and costly triggers. Since shareholders are entitled to the upside, they are the most obvious and appropriate candidates to bear the risk.

The easiest way to implement the transition to higher equity requirements is to ban payments to equity until banks are much better capitalized. Part of this transition can be accomplished by requiring that some executive compensation come in the form of new shares rather than cash.
The attached letter provides more discussion of the benefits of more equity.

3. **Rather than relaxing stress tests for a set of banks and bank holding companies, the Federal Reserve should institute a market-based stress test for large banks and bank holding companies.**

The Federal Reserve's proposal would eliminate supervisory stress testing for some of the nation's largest BHCs. We agree that the current stress testing regime is flawed. Instead of relying on market tests, regulators use so-called stress tests to reassure themselves and the public that the banks are "safe enough." These tests set inadequate benchmarks for passing and are based on many strong assumptions. Moreover, they are unable to predict the market dynamics of the interconnected system in an actual crisis, which may come from an unexpected direction. As a result, they give false reassurances.

---

[6] John Cochrane in "Running on Empty," *Wall Street Journal*, March 1, 2013 (linked at https://johnhcochrane.blogspot.com/2013/03/the-bankers-new-clothes-review.html) captures the spirit of the answer, namely that we should require enough equity that precisely how much no longer matters, because the downside risk is borne by shareholders.

Instead, regulators should mandate all banks – or at least the largest banks – to issue minimum amounts of new equity each year. Banks that cannot raise equity should be viewed as failing a market-based stress test. Currently, some market participants view our largest banks as “uninvestable.”[7] Any institution that is too opaque, insolvent, or too big and inefficient to be able to attract equity funding from the market should not persist.

This proposal would lessen the burden on both institutions and regulators, while ensuring that banks are adequately capitalized. The strong and pervasive resistance of many banks to reducing their indebtedness and to raising equity can itself be taken as a warning sign. The reason is simple: equity is prohibitively "expensive" to institutions that rely too heavily on subsidies and will find it difficult to survive in competitive markets. Importantly, significant indebtedness results in distortions in investment decisions of banks (so called "debt overhang") and biases responses to ratio-based requirements towards asset sales, particularly relatively low risk assets such as business loans. Hence it is critical to ensure that the adjustments banks make in response to regulations reduce systemic risk and that they are not distorted by the narrow interests of shareholders and managers.[8]

One of the many misleading narratives about financial crises holds that financial crises are similar to natural disasters and, being unpreventable, are events we must tolerate as the cost of having a vibrant economy. This narrative skews discussion to disaster preparation (how can we get ambulances to the scene of an accident quicker?) rather than to prevention of the crisis in the first place. While simple and cost-effective regulations can help counter distorted incentives, regulators have instead devised extremely complex regulations, many of which may not bring enough benefit to justify the costs, but which nevertheless give the pretense of action. Rather than weakening rules for some of our largest banks, we should be simplifying and strengthening the requirements for equity funding of all banks and relying on market based-tests to determine financial riskiness.

Thank you for considering our views on this important matter.

Sincerely,

Anat R. Admati (admati@stanford.edu)

Paul Pfleiderer (pfleider@stanford.edu)

Amit Seru (aseru@stanford.edu)

---

[7] *See* Jesse Eisinger & Frank Partnoy, “What’s Inside America’s Banks?”, The Atlantic, January/February 2013, available at: https://www.theatlantic.com/magazine/archive/2013/01/whats-inside-americas-banks/309196/

[8] *See* Admati et al. (2018), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2304969 and slides from a presentation by Admati in the November, 2018 OFR-FRB of Cleveland conference on financial stability, available at https://admati.people.stanford.edu/sites/g/files/sbiybj1846/f/cleveland-fed-ofr-admati-print.pdf

ATTACHMENT

STANFORD UNIVERSITY
STANFORD CA 94305

ANAT R. ADMATI
THE GEORGE G.C. PARKER PROFESSOR OF FINANCE AND ECONOMICS
GRADUATE SCHOOL OF BUSINESS

JOHN H. COCHRANE
THE ROSE-MARIE AND JACK ANDERSON SENIOR FELLOW
HOOVER INSTITUTION

PAUL PFLEIDERER
THE C.O.G. MILLER DISTINGUISHED PROFESSOR OF FINANCE
GRADUATE SCHOOL OF BUSINESS

AMIT SERU
THE STEVEN AND ROBERTA DENNING PROFESSOR OF FINANCE AND SENIOR FELLOW
GRADUATE SCHOOL OF BUSINESS AND HOOVER INSTITUTION

September 26, 2018

Honorable Michael Crapo
Chairman
Committee on Banking, Housing,
and Urban Affairs
United States Senate
Washington, D.C. 20510

Honorable Sherrod Brown
Ranking Member
Committee on Banking, Housing,
and Urban Affairs
United States Senate
Washington, D.C. 20510

Dear Chairman Crapo and Ranking Member Brown:

Thank you for the opportunity to comment on the hearing scheduled for October 2, 2018 on the implementation of S.2155. Three of us sent you a letter on March 6, 2018 when the law was being discussed.[9] We were concerned that the "tailoring" proposed in S.2155 would be used to lower equity requirements and thus endanger the financial system. These concerns are even stronger today. We are alarmed by the recent push from some industry participants and policymakers to weaken capital regulation, since capital regulation, when implemented properly, is the most essential, beneficial, and cost-effective part of banking regulation.

Effective capital regulation requires that financial institutions obtain a substantial part of their funding from equity by issuing stock or retaining earnings. Equity capital automatically absorbs losses and reduces the chances of insolvency, bankruptcy, financial crises, and

[9] https://www.gsb.stanford.edu/sites/gsb/files/admati-pfleiderer-seru-letter-s.2155-final.pdf

bailouts. Equity capital makes the financial system on its own resilient to losses, and also insulates the system against regulators' failure or inability to spot risks ahead of time or to properly regulate risk-taking. In our view, banks should have equity greater than at least 15 percent of properly measured assets. [10] This is substantially more than current regulations, such as 3 percent under Basel III or 5 percent for the largest Bank Holding Companies in the U.S.

The flaws in current regulation go beyond dangerously low equity requirements. The rules allow banks to count as regulatory capital some debt securities that are much inferior to equity for loss absorption. These are referred to as Tier 2 capital, contingent capital, or Total Loss Absorbing Capacity (TLAC). These securities are poor substitutes for equity in capital regulations. Shareholders absorb losses automatically through declines in the share value, while the other securities involve triggers and complex mechanisms to impose losses on creditors. In the financial crisis, the holders of such securities were paid in full and did not absorb losses even as the issuing institutions received massive supports from governments and central banks.

The use of asset risk weights to calibrate capital requirements is also inherently flawed. In the financial crisis and more recently in Europe, many institutions collapsed from losses on securities considered perfectly safe by such regulations. Risk weights distort banks' investment decisions away from lending to consumers and businesses and toward securities, many constructed to meet risk weights. Risk weights encourage innovation to manipulate rules in ways that often increase systemic risk.

Financial institutions often complain that raising equity is costly. This complaint ignores the distinction between private and social costs. Equity appears costly to banks because the use of debt allows them to enjoy higher subsidies through tax savings and the ability to shift risks to the taxpayers. But more equity capital is not more expensive to society as a whole, which pays those subsidies. Banks clamouring for looser capital requirements are, in effect, clamouring for taxpayer subsidies, subsidies that perversely increase systemic risk. You must resist. Bank stocks have boomed in the last few years, even as capital requirements have risen, showing how empty is the claim that banks cannot function with higher equity capital requirements.

Regulators and bankers may tell you that the Fed's stress tests should reassure us about the safety of banks, despite banks' extensive reliance on borrowed money. However, risks facing financial institutions are inherently difficult to predict, describe, and quantify, and they are hard to anticipate both by the banks and by their regulators. Stress tests are based on models with numerous questionable assumptions. These models cannot reliably identify major sources

[10] A 2010 letter from twenty finance and banking scholars whose signatories include Nobel-prize winners William F. Sharpe and Eugene F. Fama states that "if at least 15 percent of total, non-weighted assets were funded with equity, the social benefits would be substantial. And the social costs would be minimal, if any," https://www.gsb.stanford.edu/faculty-research/excessive-leverage/healthy-banking-system-goal

of risk and their consequences in the highly complex and interconnected system. Stress tests gives a false sense of safety.

The claim that some institutions should be allowed to operate with less equity because they are not "systemic" is also false. Many crises, including the huge banking crisis of the Great Depression and the Savings and Loan debacle of the 1980s, involved the simultaneous failure of many small institutions. During the financial crisis of 2008-2009, thousands of banks of all sizes, not just the largest, as well as some non-banks, required support that was delivered through trillions in loans and investments by governments and central banks in US and Europe. Creditors run on small banks as well as on big ones if they are concerned about the safety of their funds. Proper equity requirements are critical for institutions of all sizes.

You might also hear that current capital requirements lead big banks to trade less than they used to trade, thus making some markets less "liquid." But this claim too argues for *more*, not less, equity. It is actually poor-capitalization of banks and the many prior debt commitments hanging over them that distort their trading decisions. If banks have enough equity that their debt is close to being risk free, the distortions that arise from overhanging debt would disappear.

We do not write in support of all regulations. Many regulations are not targeted at documented market failures or are too complex and costly relative to their benefits. These regulations are wasteful for society. Regulating the mix of funding to require more equity and less short-term debt, however, goes to the heart of fragility in banking. It removes distortions caused by government subsidies and can be done simply and transparently. Indeed, requiring more equity capital is a step toward de-regulation since it would enable the simplification or elimination of complex, expensive or counterproductive regulations, and promote competition and innovation.

The current high profitability of banks and strong economy provide regulators with a golden opportunity to strengthen and improve equity requirements so the financial system can continue to function well in a downturn.

Historically, regulators have eased off in the boom, often caving in to pressure from enthusiastic bankers, and thereby making the subsequent crisis worse. We must not repeat the same mistakes.

At this hearing, we urge you to press the banking regulators to answer the following question:

> *Over the 10 years since the crisis, regulators have substantially increased capital requirements. The economy is booming, lending is up, and bank profits are high. Now that we have all learned that the scare stories about capital are false, why would you not complete the job, raising equity capital requirements further so that the financial system can easily weather the next downturn? You need only to require firms to retain earnings*

rather than pay them out to shareholders. Why repeat the errors of the past by loosening capital requirements in the boom that always precedes a bust?

Sincerely,

Anat R. Admati (admati@stanford.edu) John H. Cochrane (john.cochrane@stanford.edu)

Paul Pfleiderer (pfleider@stanford.edu) Amit Seru (aseru@stanford.edu)

Cc: The Honorable Richard Shelby
The Honorable Jack Reed
The Honorable Bob Corker
The Honorable Robert Menendez
The Honorable Patrick J. Toomey
The Honorable Jon Tester
The Honorable Dean Heller
The Honorable Mark R. Warner
The Honorable Tim Scott
The Honorable Elizabeth Warren
The Honorable Ben Sasse
The Honorable Heidi Heitkamp
The Honorable Tom Cotton
The Honorable Joe Donnelly
The Honorable Mike Rounds
The Honorable Brian Schatz
The Honorable David Perdue
The Honorable Chris Van Hollen
The Honorable Thom Tillis
The Honorable Catherine Cortez Masto
The Honorable John Kennedy
The Honorable Doug Jones
The Honorable Jerry Moran