AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

ENDING "TOO BIG TO FAIL:" WHAT IS THE PROPER ROLE OF CAPITAL AND LIQUIDITY?

HEARING

BEFORE THE

COMMITTEE ON FINANCIAL SERVICES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

JULY 23, 2015

Printed for the use of the Committee on Financial Services

Serial No. 114–45

U.S. GOVERNMENT PUBLISHING OFFICE

97–158 PDF WASHINGTON : 2016

For sale by the Superintendent of Documents, U.S. Government Publishing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

HOUSE COMMITTEE ON FINANCIAL SERVICES

JEB HENSARLING, Texas, *Chairman*

PATRICK T. MCHENRY, North Carolina, *Vice Chairman*
PETER T. KING, New York
EDWARD R. ROYCE, California
FRANK D. LUCAS, Oklahoma
SCOTT GARRETT, New Jersey
RANDY NEUGEBAUER, Texas
STEVAN PEARCE, New Mexico
BILL POSEY, Florida
MICHAEL G. FITZPATRICK, Pennsylvania
LYNN A. WESTMORELAND, Georgia
BLAINE LUETKEMEYER, Missouri
BILL HUIZENGA, Michigan
SEAN P. DUFFY, Wisconsin
ROBERT HURT, Virginia
STEVE STIVERS, Ohio
STEPHEN LEE FINCHER, Tennessee
MARLIN A. STUTZMAN, Indiana
MICK MULVANEY, South Carolina
RANDY HULTGREN, Illinois
DENNIS A. ROSS, Florida
ROBERT PITTENGER, North Carolina
ANN WAGNER, Missouri
ANDY BARR, Kentucky
KEITH J. ROTHFUS, Pennsylvania
LUKE MESSER, Indiana
DAVID SCHWEIKERT, Arizona
FRANK GUINTA, New Hampshire
SCOTT TIPTON, Colorado
ROGER WILLIAMS, Texas
BRUCE POLIQUIN, Maine
MIA LOVE, Utah
FRENCH HILL, Arkansas
TOM EMMER, Minnesota

MAXINE WATERS, California, *Ranking Member*
CAROLYN B. MALONEY, New York
NYDIA M. VELÁZQUEZ, New York
BRAD SHERMAN, California
GREGORY W. MEEKS, New York
MICHAEL E. CAPUANO, Massachusetts
RUBÉN HINOJOSA, Texas
WM. LACY CLAY, Missouri
STEPHEN F. LYNCH, Massachusetts
DAVID SCOTT, Georgia
AL GREEN, Texas
EMANUEL CLEAVER, Missouri
GWEN MOORE, Wisconsin
KEITH ELLISON, Minnesota
ED PERLMUTTER, Colorado
JAMES A. HIMES, Connecticut
JOHN C. CARNEY, JR., Delaware
TERRI A. SEWELL, Alabama
BILL FOSTER, Illinois
DANIEL T. KILDEE, Michigan
PATRICK MURPHY, Florida
JOHN K. DELANEY, Maryland
KYRSTEN SINEMA, Arizona
JOYCE BEATTY, Ohio
DENNY HECK, Washington
JUAN VARGAS, California

SHANNON MCGAHN, *Staff Director*
JAMES H. CLINGER, *Chief Counsel*

CONTENTS

	Page
Hearing held on:	
July 23, 2015	1
Appendix:	
July 23, 2015	49

WITNESSES

THURSDAY, JULY 23, 2015

Calomiris, Charles W., Henry Kaufman Professor of Financial Institutions, Columbia University Graduate School of Business	5
Chakravorti, Sujit "Bob," Managing Director and Chief Economist, The Clearing House Association L.L.C.	7
Michel, Norbert J., Research Fellow in Financial Regulations, The Heritage Foundation	10
Parsons, John E., Senior Lecturer, Sloan School of Management, Massachusetts Institute of Technology	8

APPENDIX

Prepared statements:	
Calomiris, Charles W.	50
Chakravorti, Sujit "Bob"	64
Michel, Norbert J.	74
Parsons, John E.	85

ENDING "TOO BIG TO FAIL:" WHAT IS THE PROPER ROLE OF CAPITAL AND LIQUIDITY?

Thursday, July 23, 2015

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

The committee met, pursuant to notice, at 10:04 a.m., in room 2128, Rayburn House Office Building, Hon. Jeb Hensarling [chairman of the committee] presiding.

Members present: Representatives Hensarling, Royce, Lucas, Garrett, Neugebauer, Pearce, Posey, Luetkemeyer, Huizenga, Duffy, Hurt, Stivers, Fincher, Stutzman, Mulvaney, Hultgren, Ross, Pittenger, Barr, Rothfus, Messer, Schweikert, Guinta, Tipton, Williams, Poliquin, Love, Hill, Emmer; Waters, Sherman, Hinojosa, Lynch, Scott, Himes, Foster, Kildee, Delaney, Sinema, Beatty, Heck, and Vargas.

Chairman HENSARLING. The Financial Services Committee will come to order.

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

Today's hearing is entitled, "Ending 'Too Big to Fail': What is the Proper Role of Capital and Liquidity?"

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

I woke up, I guess it was the day before yesterday, to an article in one of the Hill publications, I think it was Politico. The article dealt with the Dodd-Frank Act, since we have either celebrated or bemoaned the fifth anniversary of Dodd-Frank. The subtitle to the article was, "Suddenly, Democrats are resisting any changes to the 5-year-old financial regulation law." The article goes on to say that a number of moderate Democrats are quite frustrated that their leadership is preventing them from engaging in meaningful bipartisan work on the issue.

I do not know the article to be accurate. It certainly feels like it, from this position, from this Chair. I just want to again say publicly what I have said privately to my friends on the other side of the aisle: The Majority stands ready to work with you to clarify, to improve, and to deal with any unintended consequences of the law.

Both Mr. Dodd and Mr. Frank have previously indicated areas of the law that they would work on to improve. I trust that they continue to be Democrats in good standing. I would hope you could

be a Democrat in good standing and work with the Majority. I hope there is not a knee-jerk ideological reaction to anything that deals with Dodd-Frank. Again, but it certainly feels that way.

I guess, to some extent, though, there is good news, because today's topic, capital and liquidity, is barely mentioned in Dodd-Frank. There is a differentiation where Dodd-Frank empowers the regulators, who already had, pre-Dodd-Frank, the authority to set prudent capital and liquidity standards. They provide for a differential for SIFIs. But outside of that, they are largely silent on the issue.

And regardless of what you believe to be the genesis of the financial crisis, I think we can all agree, looking through the rearview mirror, that clearly, capital and liquidity standards were insufficient, to put it mildly.

Prior to the crisis, there were very complex, risk-based capital standards in place. And in implementing these various complex, risk-based capital standards—as we know, they were principally designed by the Basel Committee out of Switzerland. And regulators in both the United States and in Europe were essentially encouraged to crowd in to both mortgage-backed securities and sovereign debt. Think Fannie Mae, Freddie Mac, and Greek bonds.

Thus, rather than mitigating financial instability, as the capital standards were intended to do, it appears that Basel helped fuel the financial instability, rather than continue with Basel help concentrated.

Now since the crisis, U.S. banks have raised more than $400 billion in new capital, and regulators have required institutions to maintain higher capital buffers—again, an authority they possessed pre-Dodd-Frank. I, for one, believe that generally, this is a good thing. But the capital standards that were already complex have become even more complex with Basel III. I do not necessarily believe this to be a good thing.

Again, relying on regulators to calibrate risk and predict future economic conditions according to highly complex models, models that neither market participants nor regulators themselves fully understand, clearly appears to be a recipe for financial crisis. We have seen the danger of one global view of risk.

So there are a number of questions that this committee must explore. Although capital and liquidity standards have increased post-crisis, do we really know by how much? How opaque do balance sheets still appear? How many items that were once off-balance-sheet will find their way back onto balance sheet? What amount of capital is the proper amount? Too much, economic growth can stall; too little, and too many failures could yet ensue.

So at today's hearing, we will explore, is there a better way? For example, are we better off measuring capital adequacy according to a more straightforward leverage ratio, which takes discretion away from regulators and seeks to give greater weight to market forces in allocating resources and achieving financial stability?

Are there specific forms of capital, such as those that convert debt to equity? In the event of predetermined market triggers, could they promote greater market discipline and better risk management at large, complex financial institutions?

And to help us with these questions, we have assembled a panel of noted experts, and I certainly look forward to hearing their testimony.

The Chair now recognizes the gentleman from California, Mr. Sherman, for 2 minutes.

Mr. SHERMAN. Thank you.

I notice here in the audience is Marc Shultz, who up until recently was sitting behind me. Marc is now with the Office of Financial Research, which is housed in Treasury and advises the FSOC.

And, Marc, I just want to say for the record, you didn't stop working for me; I just stopped paying you.

You know, Mr. Chairman, the title of this hearing begins with the words "Ending Too Big to Fail." The best approach to end "too-big-to-fail" is to end "too-big-to-fail." The title should not be, "Strengthening Too-Big-to-Fail," "Improving Too-Big-to-Fail," "Better Governing Too-Big-to-Fail, "Watching Too-Big-to-Fail," or "Scrutinizing Too-Big-to-Fail." We have to end "too-big-to-fail."

That is why you ought to join me and Senator Bernie Sanders in sponsoring legislation to say "too-big-to-fail" is too big to exist; break them up.

And, Mr. Chairman, this is not a bill supported only by Socialists. It is a bill supported by the ICBA, which represents 90 percent of the bankers in this country, or 90 percent of the banks in this country, most of whom are not Socialists.

Until we end "too-big-to-fail," we will be having ineffective hearings on how to watch the "too-big-to-fail." They enjoy a basis-point advantage when they seek capital, so they are going to keep getting bigger and bigger. They are going to put regional banks at a disadvantage. That is why the ICBA endorses this bill, and I hope very much that the chairman will, as well, but I am not holding my breath.

The fact is that when we classify entities as SIFIs or "too-big-to-fail," we should be focusing on their liabilities. Lehman Brothers did not fail because it had too many assets. And that is why, when they start classifying as SIFIs organizations that have no liabilities, whose failure would not leave a single creditor without being paid, then I think it is just a desire by the regulators to regulate anybody that is big and juicy.

Instead, we ought to be breaking up those entities whose actual and contingent liabilities are of such a magnitude that if they fail to pay those liabilities, they take the economy down with them.

I yield back.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the ranking member for 3 minutes for an opening statement.

Ms. WATERS. Thank you, Mr. Chairman.

Over the years, as this committee has debated, passed, and overseen the implementation of the Dodd-Frank Wall Street Reform Act, we have heard a number of doomsday scenarios about the consequences of new liquidity and capital requirements for financial institutions. Well, as we celebrate the 5-year anniversary of Dodd-Frank and as these requirements have gone into effect, I am pleased to report that the world hasn't ended.

Today, our financial markets are stable and secure. Banks are making record profits. Lending is up. And we have a financial system that is stronger, safer, and more resilient than ever before.

Prior to the financial crisis, regulators were asleep at the switch. As banks leveraged up and concentrated their activities in risky mortgages while being allowed to rely on their own risk models, bank executives made huge bonuses on these short-term gains, but when the music stopped, it was taxpayers who took the losses.

Dodd-Frank mandates that regulators work together to closely monitor the Nation's large banks, setting a floor for capital and liquidity standards to ensure financial companies are risking their own capital rather than taxpayer money. Just this week, regulators finalized a rule that would require even higher capital standards at the largest globally systemic banks that actively seek out the riskiest lines of business.

While the implementation of Dodd-Frank is incomplete, it is already working. A staff report by committee Democrats, released this week, found that Dodd-Frank has made our financial system more transparent, more stable, and more accountable by arming our regulators with vital tools to monitor the financial system for risk, increase transparency, and institute new investor protections.

And to make certain this approach is not overly onerous, Dodd-Frank has created a flexible and tiered regulatory framework to ensure these heightened standards are tailored to banks of different sizes.

Since the passage of Wall Street reform, the American economy has stabilized, adding around 12.8 million private-sector jobs over 64 consecutive months of job growth, dropping the unemployment rate from its peak of 10 percent in 2009 to 5.3 percent currently.

Mr. Chairman, when discussing the proper role of capital and liquidity, it is important to keep in mind that today our financial system is safer and stronger than it has been in a generation, regardless of the claims we hear from the most fervent opponents.

I thank you, and I yield back the balance of my time.

Chairman HENSARLING. The gentlelady yields back.

We are all familiar with the celebrated question, "Is there a doctor in the house?" Today, we appear to have four of them at the witness table.

So, going left to right, today we will welcome the testimony of Dr. Charles Calomiris, who is the Henry Kaufman Professor of Financial Institutions at the Columbia University Graduate School of Business. His research spans several areas including banking, corporate finance, financial history, and monetary economics. He received a B.A. from Yale University, and a doctorate in economics from Stanford.

Our next witness, Dr. Bob Chakravorti, is the managing director and chief economist of The Clearing House Association. He was previously a senior economist at the Federal Reserve Banks of Chicago and Dallas. He is the author of more than 40 articles for industry, academic, and Fed publications. He received his Ph.D. and M.A. in economics from Brown University, and his B.A. from UC Berkeley.

Next, Dr. John Parsons is a senior lecturer at the Sloan School of Management at MIT. He previously worked at the economics

consulting firm of CRA International, where he was a vice president and principal. He earned his B.A. from Princeton, and a Ph.D. in economics from Northwestern University.

Finally, Dr. Norbert Michel is a research fellow in financial regulations at The Heritage Foundation. He previously taught finance, economics, and statistics at Nicholls State University's College of Business. He holds a B.A. from Loyola University, and a doctorate in financial economics from the University of New Orleans.

I do not recall if all of you all have testified before. If not, we have this lighting system: green means go; when the yellow light comes on, it means you have a minute left; and red means stop. Each of you will be recognized for 5 minutes to give an oral presentation of your testimony, and without objection, each of your written statements will be made a part of the record.

Professor Calomiris, you are now recognized for your testimony.

STATEMENT OF CHARLES W. CALOMIRIS, HENRY KAUFMAN PROFESSOR OF FINANCIAL INSTITUTIONS, COLUMBIA UNIVERSITY GRADUATE SCHOOL OF BUSINESS

Mr. CALOMIRIS. Chairman Hensarling, Ranking Member Waters, and members of the committee, it is a pleasure and an honor to share my thoughts on the "too-big-to-fail" problem and, more generally, the problems of bank instability, credit collapses, and financial burdens on taxpayers that result from private risk-taking at public expense.

Title II of Dodd-Frank is supposed to ensure orderly liquidation of "too-big-to-fail" banks, now called SIFIs, but is more likely to institutionalize bailouts by establishing specific procedures through which they will occur. Rather than pretending that we will have the legal mechanisms and political will to liquidate SIFIs, we should focus on preventing them from becoming insolvent. That means focusing on the adequacy of bank capital and cash.

Book equity is a poor measure of the true value of equity. When banks suffer losses on tangible assets, such as loans, they typically delay loss recognition. Overstating equity capital allows them to avoid curtailing risky activities. Furthermore, the book value of equity does not capture losses of intangible assets. Lost servicing income, other fee income, and reduced values of relationships with depositors and borrowers have been the primary drivers of loss in bank values since 2006.

We should raise equity capital ratio requirements further, but we cannot rely only on book equity ratios to measure bank health. We need to measure the economic value of equity and put in place reliable regulatory requirements which ensure that banks will maintain adequate and meaningfully measured equity capital.

I propose requiring alongside a book equity requirement that large banks maintain a substantial proportion of funding in contingent convertible debt, CoCos, that converts into equity on a dilutive basis when the market value of equity persistently falls below 10 percent of assets. Dilution ensures that bank managers face strong incentives to replace lost equity in a timely manner to avoid the dilutive conversion of CoCos.

Bank CEOs would have a strong incentive to maintain a significant buffer of equity value above the 10-percent trigger. They

would increase that buffer voluntarily if the riskiness of banks' assets rose, resulting in a self-enforcing, risk-based equity requirement based on credible self-measurement of risk, in contrast to the current system of risk-measurement gaming by banks.

This CoCos requirement would virtually preclude SIFI bailouts. Bailouts cannot occur if banks remain very distant from the insolvency point.

Additionally, stress tests could be a promising means of encouraging bankers to think ahead, but, as they are structured, stress tests are a Kafkaesque Kabuki drama in which SIFIs are punished for failing to meet unstated standards. That not only violates the rule of law, the protection of property rights, and adherence to due process; it makes stress tests a source of uncertainty rather than a helpful guide to identifying unanticipated risks.

And the penalties for failing a stress test are wrong. Limiting dividends makes sense for a capital-impaired bank but not for a healthy bank in compliance with all its regulatory requirements. In that case, it is inappropriate to try to decide the dividend decision for the board of directors.

Finally, the stress-testing standards currently being applied are not very meaningful.

We can do much better. The Fed should be required to provide clear guidance. Stress tests should be an input into capital requirements, not used to control dividend decisions. Finally, stress tests should focus on the loss of economic value, by analyzing consequences for bank cash flows, divided by line of business, using data from bank managerial accounts. That is not happening now.

Liquidity requirements are another good idea being implemented poorly. A better, simpler approach would require SIFIs to maintain reserves at the Fed of 25 percent of their debt. To avoid turning that into a tax, reserves should bear market interest. This would require banks to hold a significant proportion of their assets in riskless debt.

This would not bind on SIFIs today, given their huge excess reserve holdings, nor would this have been binding in the early 1990s. But it would have been very helpfully binding on SIFIs leading up to the recent crisis. Large banks held 25.8 percent of their assets in cash form in January 1994. That fell to 17.2 percent by January 2001 and to 13.5 percent by January of 2008.

Applying to SIFIs the right combination of regulations governing book equity, CoCos, stress tests, and reserves would virtually eliminate the risk of "too-big-to-fail" bailouts.

But that is not the only bank bailout risk we face. The most important source of systemic risk for small banks, the ones that cost us so much in both the 1980s and the 2000s with their cost of failure, one that was visible both in the 1980s and the 2000s, was their excessive exposure to real estate lending. Real estate risk is highly correlated, and it is hard to shed in a downturn.

As of January 2008, roughly three-quarters of small-bank lending was in real estate loans. Large banks had lower exposures but still very large ones. The obvious answer is to limit bank real estate lending, forcing real estate financing to emigrate to REITS, insurance companies, and other more natural providers of real estate finance.

These reforms not only would virtually eliminate the "too-big-to-fail" problem; they would stabilize the entire banking system, protect taxpayers, reduce regulatory uncertainty, and improve the performance of banks.

Thank you for your attention.

[The prepared statement of Dr. Calomiris can be found on page 50 of the appendix.]

Chairman HENSARLING. Thank you.

Dr. Chakravorti, you are now recognized for 5 minutes for your testimony.

STATEMENT OF SUJIT "BOB" CHAKRAVORTI, MANAGING DIRECTOR AND CHIEF ECONOMIST, THE CLEARING HOUSE ASSOCIATION L.L.C.

Mr. CHAKRAVORTI. Chairman Hensarling, Ranking Member Waters, and members of the committee, thank you for inviting me to testify today on the critical topic of capital in the banking system.

My name is Bob Chakravorti, and I am the chief economist at The Clearing House, where I oversee empirical studies on financial regulations. The Clearing House is a nonpartisan organization that represents the interests of our owner banks by developing and promoting policies to support a safe, sound, and competitive banking system. I appreciate the opportunity to share my observations on regulation of bank capital.

The strength and resilience of the American banking system are essential. Banks serve as unique financial intermediaries between those who save and those who borrow and those who are unwilling to take risk and those who are willing to bear risk for a price. Our modern economy relies on banks to provide these critical financial intermediation functions.

Next, I will offer five key observations.

First, robust capital requirements are clearly an essential tool for promoting the safety and soundness of individual institutions and enhancing the stability of the financial system as a whole. Simply put, capital acts as a cushion that can absorb potential losses from all activities in which banks engage. That, in turn, supports their strength and resilience.

Second, very significant improvements to the regulation of bank capital have occurred since 2008, including measures proactively adopted by banks themselves. Between early 2008 and late 2014, the largest bank holding companies more than doubled the amount of their common equity Tier 1 capital relative to risk-weighted assets and substantially increased their leverage ratio.

U.S. regulators have similarly responded to the crisis by rapidly overhauling the bank regulatory capital framework, including: increasing requirements for the quantity and quality of capital; making various asset risk weights more conservative; introducing capital stress-testing and supplemental leverage ratio for larger banks; finalizing the U.S. G-SIB surcharge earlier this week; and introducing a total loss-absorbing capacity requirement, which is forthcoming.

In addition to these very significant improvements in bank capital regulation, other parts of the regulatory landscape are very dif-

ferent from what existed in 2007. Many of these improvements are specifically designed to reduce systemic risk—for example, a new comprehensive liquidity regime which includes the liquidity coverage ratio, the upcoming net stable funding ratio, and liquidity stress-testing. Taken together, these measures reduce the probability of default and the systemic impact of that default.

Third, along with these clear benefits, capital has costs. As economists, we like to say there is no such thing as a free lunch. My written statement details that, at some point, increasing bank capital levels may result in a reduction in key banking activities that support our overall economy, including mortgage and small-business lending, commercial lending, market-making, and other financial intermediation services.

Fourth, I wish there was a clear consensus around how much capital is the right amount, but unfortunately, academics and policymakers continue to disagree on this difficult question. What is clear, however, is that there are tradeoffs. For example, there is a tradeoff of the benefits of increased financial stability at the expense of potential reduction in economic growth. And there are competitive impacts for U.S. banks in the global economy that are subject to capital standards higher than internationally agreed upon.

Finally, as we wrestle with the question of how much capital is enough and where we go from here, I urge you to take into account the full consequences of the new regulatory regime, particularly in terms of the downstream impact to the real economy that have not been fully realized.

Additional empirical analysis is essential to inform these decisions. This is a good time for policymakers to pause and evaluate where we have landed in the tradeoff between financial stability and the banking system's contribution to the U.S. economy.

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

[The prepared statement of Dr. Chakravorti can be found on page 64 of the appendix.]

Chairman HENSARLING. Dr. Parsons, you are now recognized for 5 minutes for your testimony.

STATEMENT OF JOHN E. PARSONS, SENIOR LECTURER, SLOAN SCHOOL OF MANAGEMENT, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Mr. PARSONS. Thank you, Chairman Hensarling, Ranking Member Waters, and members of the committee. It is a pleasure to meet here with you today and discuss this subject.

I think it is very interesting that there is significant unanimity here that, in the last number of years, as the chairman pointed out and others have, supervisors have substantially improved bank capital requirements, and, in many diverse ways, the analysis of capital in banking institutions has been improved, which has made the system substantially safer.

So maybe I should just pause for one moment about that substantial agreement. I guess, as an economist, I have to agree that there is no such thing as a free lunch. But there are places you can get cheap eats, and when you do, you should definitely go for them.

So, in my opinion, we are nowhere near worrying about major costs from these capital requirements to the financial system.

Let me address very specifically one that has been floated in the press for a number of years, and try to flesh out one or two issues about that cost. There has been a lot of discussion about perhaps liquidity in the corporate bond market has declined and perhaps that decline has to do with the regulations on banks and their inability to act as dealers.

So, first of all, what we really have heard in the press is vague worries and discussions about this, identifications of one or two statistics that have changed in the last number of years, vague phrases that "something" has changed. So I have a couple of points to say about those changes.

Certainly, some of those changes are a feature and not a bug. When the banks have been asked to move their propriety trading operations outside the bank and stop doing proprietary trading, that is a good thing for the safety of the system, and that trading can still go on. Hedge funds can still operate outside of the banking system. But that trading is no longer financed by a taxpayer backstop. How much trading is right to be done is something that is determined by the costs and benefits of that trading and the decisions of the individual traders, but it is no longer subsidized by taxpayers. That is a benefit to society and not a cost.

But it is also true that an awful lot of other things are going on in the bond market right now. We have watched over the last few decades how the equity markets have changed because computing power and communication have transformed trading. We have also noticed that that has happened in the U.S. Treasury market dramatically over the last few years and seen the report about last October's problem, because there are difficulties when that happens. The trading is cheaper in this newer way, but it has new problems.

The same thing is beginning to happen in the corporate bond market. It is far from what has happened in Treasuries, but it nevertheless is happening. That is technology changing. We need to respond to that, we need to welcome it, and we need to watch for the problems that it has. But it has nothing to do with capital standards, and capital standards can't solve the glitches that arise in doing it and make it more effective for society.

So, that is one thing on the costs.

The other thing I wanted to raise out of my testimony is, as we hear so many different capital standards thrown around, one particular item that has been discussed that I think bears fleshing out a little bit is stress tests and how important stress tests are. Several of us agree about that, as well.

I just want to highlight two ways in which stress tests are very important. First of all, they are very forward-looking, which is something we need and we all agree is needed. Second of all, they allow you to question, sort of, convenient assumptions that are relatively weak in important ways.

Some people criticize stress tests the way the Fed has applied them because they have been "vague." But really what the Fed is doing is inviting bank officers to come to the table and provide leadership about what kinds of things we should be worrying

about, provide leadership in identifying the major risks and showing that the bank is going to be ready for those major risks.

We should welcome that kind of demand for the major banks in the United States to identify and play an active role in ensuring that the system is safe. It shouldn't be a system where the regulators are the only ones involved in determining what counts as a safe and healthy system. We should be doing that in partnership, and the stress tests are a very good opportunity to do that in partnership.

Thank you very much, and I look forward to talking more on the subject.

[The prepared statement of Dr. Parsons can be found on page 85 of the appendix.]

Chairman HENSARLING. And Dr. Michel, you are now recognized for your testimony.

STATEMENT OF NORBERT J. MICHEL, RESEARCH FELLOW IN FINANCIAL REGULATIONS, THE HERITAGE FOUNDATION

Mr. MICHEL. Thank you.

Chairman Hensarling, Ranking Member Waters, and members of the committee, I am Norbert Michel, a research fellow in financial regulations at The Heritage Foundation. The views that I express in this testimony today are my own, and they should not construed as representing any official position of The Heritage Foundation.

The aim of my testimony this morning is to argue that a key step toward ending "too-big-to-fail" is to promote market discipline by eliminating risk-based capital requirements.

There are three main issues that I would like to address.

First, recent efforts to restrict the Federal Reserve's direct lending to firms so that it will closely conform to the classic prescription for a last-resort lender are counterproductive because they do not increase this market discipline.

This classic prescription says that the central bank should readily provide short-term loans to solvent firms on good collateral at high rates of interest. But we have to ask ourselves, why would a large group of private lenders not make loans on these terms? And one of the reasons is because strict regulatory requirements can prevent firms from making these loans.

In this case, the absence of private lending is a regulatory failure, not a market failure. And the removal of these restrictions would allow private lenders to make prudent loans rather than hold idle funds.

Unfortunately, Title I of Dodd-Frank has only magnified this problem by ensuring that new versions of the Basel requirements will be forced on financial firms. These rules, along with other regulatory policies, literally create the need for government-sponsored lending under the guise of providing liquidity that the market failed to provide. But we should make no mistake that this is a regulatory failure, and major regulatory failures contributed to the 2008 crisis.

And that brings me to my second main issue, which is that the Basel requirements contributed to the meltdown not because they required too little capital per se but because regulators failed to properly measure risk.

The Basel rules were forced on commercial banks in the late 1980s, and the regulators assured the public at that time that these new requirements would, in fact, force banks to hold a cushion against unexpected losses. To build that cushion, regulators literally specified risk levels for bank assets by assigning different risk weights. Lower weights required lower capital; higher weights required higher capital.

The system specifically required less capital to be held against GSE-issued mortgage-backed securities than against either home mortgages or commercial loans. Unsurprisingly, most commercial banks followed the same practice. They sold their customers' mortgages to the GSEs, and they held, instead, the GSE securities.

So, when the GSEs became insolvent, virtually all banks were stuck with nearly the same asset structure and exposed to the same losses, even though the typical bank at that time had exceeded its minimum capital requirements by 2 to 3 percentage points for the 6 years leading up to the crisis.

There is no doubt that these statutory capital requirements failed and the whole concept is flawed. The only reason that Dodd-Frank gave us Basel III, indirectly, is because the crisis exposed Basel II as deeply flawed before it was even fully implemented.

And that brings me to my third and final point, which is that there is no reason to think that Basel III will perform any better, because it maintains the main regulatory flaw that we have basically always had in the United States, which is that regulators, rather than markets, determine bank capital standards.

If we want to improve bank safety, we should scrap this overly complicated, top-down system and replace it with a simple set of rules that allows markets to adequately price risk and to discipline firms that take on too much.

True reforms would include the repeal of, at the very least, Titles I and II of Dodd-Frank as well as the elimination of the Fed's authority to make loans directly to firms. These changes would provide a credible basis for believing that it is unlikely financial firms will be bailed out in a future crisis.

Then, and only then, will major improvements that expose firms to more market discipline be possible. For instance, in return for reducing regulations, a simple, flat capital ratio could easily replace the enormously complex Basel rules. Another good option is a contingent convertible debt requirement.

But those ideas still fall short of purely market-determined capital ratios, and that is what our long-term goal should be.

One way to get there would be to offer financial firms an optional escape clause. Allow them to opt out of the Federal regulatory framework, as well as the Federal safety net, in exchange for converting to a partnership entity. Thus, in return for real deregulation, financial firms' owners would be fully liable directly for their companies' losses, as it should be in any business.

Thank you for your consideration, and I am happy to answer any questions you may have.

[The prepared statement of Dr. Michel can be found on page 74 of the appendix.]

Chairman HENSARLING. Thank you.

The Chair now yields himself 5 minutes for questioning.

So, Dr. Michel, it is pretty clear that you don't think BASEL I and Basel II historically got it right. It doesn't appear that you are a fan of Basel III either.

Mr. MICHEL. Not exactly.

Chairman HENSARLING. Do you have any hope that a Basel IV or a Basel V could ever get it right? Or could you simply expound upon your views of what is the systemic risk of having one world view of risk imposed upon the global financial system?

Mr. MICHEL. The general problem is that, just sort of like what we saw happen last time, you have basically everybody forced into the same sort of structure and the same sort of investments or the same sort of capital allocations, and if one thing goes wrong, it hits everybody equally.

We have a very long history in the United States of this sort of—what I would just sort of call a populist tendency to direct all of the bank capital requirements and standards, so to speak, and the entire structure of that industry. And it has driven it into the ground more than once. I don't know how many times we have to go through this to figure out what we are doing wrong, but—

Chairman HENSARLING. Dr. Calomiris, you have obviously contributed a very unique idea to the public debate here.

I read your full testimony, your extended version. So I think you have maintained that CoCos would encourage banks to recognize losses earlier than they otherwise would because of the aspect of market discipline. They would have an incentive to build their capital buffer earlier.

Can you expound on that view and how this is important to taxpayer protection?

Mr. CALOMIRIS. Yes. Thank you, Mr. Chairman.

The basic idea is simple. If banks had to maintain their true economic value of their equity ratio at above 10 percent—that means that the market believes that the banks actually have equity in excess of 10 percent of their assets—banks would never be anywhere near the insolvency point, and we wouldn't ever worry about bailouts.

If you create a penalty for banks in persistently getting below that which is credible, then bankers won't get below it. And CoCos are really just a way to create that penalty through a very diluted conversion of debt instruments into equity. And if a CEO just stood by and let that dilution happen, he or she would be fired.

And so we are working off the incentives of people to self-identify their losses and to self-identify their risks and to hold more capital when their risks are high and to replace lost capital very quickly because, number one, that CEO doesn't want to get fired.

When I was having breakfast with a vice chairman of one of the large banks in the summer of 2008, I said to him, "Why aren't you raising more capital?" He said, "We don't like the price. And did you notice what happened with Bear Stearns? So why should we?"

And what didn't he like? He didn't like having to get dilutively offering new equity at a price that was too low. But if he had had those CoCos hanging over his head, he would have jumped to raise new capital to avoid the even greater dilution of that conversion.

So, that is the basic argument.

Chairman HENSARLING. Speaking of interest, also in your writings you have spoken about a convergence of interest between large banks and their regulators that might diverge from the interest of taxpayers in times of stress. You spoke about the Bear Stearns scenario. Can you expand upon your views there, please?

Mr. CALOMIRIS. There is a large literature, academic literature that has identified persistent, across many countries, the tendency for supervisors to allow banks not to identify losses during recessions. The reason is, if you identify losses, banks might have to curtail credit. That is not popular with politicians or regulators, especially in democracies that hold elections.

For example, it wasn't until the 1988 election in the United States was over that we recognized major losses in the S&Ls. There are some recent articles showing that the same thing happened during our crisis in 2008.

So we know that we can rely upon supervisors to go along with bankers in understating losses, not just in the United States but around the world.

Chairman HENSARLING. The opponents of your idea will say that this simply becomes a juicy target for those who will choose to short a bank's equity, that this is a very rich target for short-sellers who wish to game the system. How do you address that concern?

Mr. CALOMIRIS. A couple of ways.

First of all, I would only allow qualified institutional investors to be holders of this, who are prohibited from short-selling. So they would have very little incentive to short-sell.

Secondly, I said persistent declines in market value, meaning 120 days. You can't maintain a profitable short position in a deep market, like a market for JPMorgan or something like that, to try to push shares down for that long a period.

So I don't really think this is a realistic concern for both of those reasons.

Chairman HENSARLING. My time has expired. I now recognize the ranking member for 5 minutes.

Ms. WATERS. Thank you very much.

I am looking at a definition of "capital," and I am listening to ways that "capital" is defined by different people.

I want to read something to you. This is for Dr. Parsons.

Under a definition of what exactly is capital, "A bank's capital, similar to shareholders' equity, is the amount left over when a bank's liabilities are subtracted from its assets, which also means that a bank's assets are equal to its liabilities plus its capital.

"In other words, a bank's capital ratio describes the mix of debt—that is, liabilities and equity—capital—the bank uses to fund its assets. Capital is not an amount set aside that cannot be lent. It is a source of funds for lending. To remain solvent, the value of a firm's assets must not exceed its liability."

Now, for you: Banks subject to heightened capital standards often point out that these standards prevent them from lending into their communities. What would you say to critics of the Dodd-Frank Act who claim that capital standards hurt borrowers and small businesses that want access to credit?

Mr. PARSONS. Thank you.

So, yes, you highlight the fact that a lot of people, in discussing bank capital, use this terminology, like banks "hold" capital—

Ms. WATERS. Yes.

Mr. PARSONS. —as if they immobilize it and don't use it. And that is wrong. The bank is funded by equity, by debt, by a variety of sources. All of that money can be put to work in purchasing assets and making loans and so on. So all of that, all sources of capital, debt capital and equity capital, can go to work. It is not a cost for the company doing it.

Some of what people think are costs are because we are subsidizing debt through the tax system, since interest is tax-free, and if we force the company to hold more equity instead of debt, in a sense the company loses some of its subsidy. But that is not a cost to society; that is a cost to that particular—where withdrawing a subsidy is not the same thing as a real cost paid out in real resources.

Ms. WATERS. In addition to capital and liquidity standards, regulators have the authority under the Dodd-Frank Act to use the living-wills process to make the largest banks less risky. How well do you think regulators have implemented this provision so far?

I am really looking at living wills, I am looking at stress tests, and I am looking at capital as a way of preventing us from ever having to bail out again. Could you give me some discussion on that?

Mr. PARSONS. So, yes, in the financial crisis, of course, we suddenly found ourselves with institutions which were extremely large doing a lot of complex activities—activities which were crossing many international boundaries, the same units having components of their business crossing international boundaries. We found ourselves with regulators unable to really see what the bank was doing and to be able to take action because they had some understanding of the bank.

We have addressed that complexity in a lot of ways—the Dodd-Frank Act that deals with derivatives in one title and so on and so forth. Living wills is one step where you can work with the bank to figure out a structure for the bank that is more rational and something that the regulators can understand and look to the need for resolution so that the bank can participate in structuring itself in a way that it can do its business but be prepared so that in the case of a crisis it can be resolved in a way which does not disrupt the activity, its business, its lines of business, that allows those lines of business to go forward.

I would say that, so far, it has been useful, so we have improved things a lot. But we, obviously—as you can hear from the regulators in responding to the living wills, there is obviously a lot of complexity and uncertainty that remains and has yet to be worked out of the system.

Ms. WATERS. Thank you so very much.

Let me just wrap this up by saying, is it correct to say to those who claim that capital requirements are preventing banks from making loans, that that is just absolutely not true?

Mr. PARSONS. Yes.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair now recognizes the gentleman from New Jersey, Mr. Garrett, chairman of our Capital Markets Subcommittee.

Mr. GARRETT. I thank the chairman. And I thank the chairman for this hearing.

I would like to jump right into that last question, but before I do, one of the books that I really found fun reading that I recommend to everybody is, "The History of Money from 1776 up until the Great Depression."

And if you go through that and all the stats and everything else in between the lines, basically what the point of the book is—or, one of the side points of the book is that up until the creation of the Fed and the FDIC and what have you, the overriding principle in the financial markets was market discipline.

Because all the local banks had to have their own market discipline because they knew there was not going to be any bailout for either the depositors through the FDIC nor bailout for the banks through the Federal Reserve or elsewhere. So that was a real incentive to be prudent in your investments and in your lending by your Main Street bank, and for the large banks as well, because the investors looked at it and said, if you are not prudent, we are not going to invest in it because you are a risky market.

That changed at the turn of the last century, and that, of course, changed dramatically again with Dodd-Frank, which basically codifies the idea of "too-big-to-fail" and that the American public is now on the hook for bailing out these institutions.

And this is not just my thought; this is a bipartisan thought. And I often give credit where credit is due, and that is my predecessor on this committee, the Democrat gentleman from Pennsylvania, who often said that we should, when he was working through Dodd-Frank, try to place in it some elements that would re-instill market forces. Unfortunately, I can't speak for him, but most of us understand that Dodd-Frank did not do that, did not instill market forces, but went in the opposite direction.

So I am going to just—I will try to go left to right.

Dr. Calomiris, you did a paper I saw back a couple of years ago, in 2011, and you were looking at the build-up to the crisis, and you gave all the stats and numbers of 2007 and 2008. And you said the capital markets were wide open, and commercial banks' investments were able to raise up to $450 billion in those 2 years. In other words, things were going well, as far as the build-up of assets and capital. But they were raising preferred shares, which goes along your last line of testimony.

So part of the effective regime going forward is, what, making sure that they are holding the right type of capital, right? So if you would just comment on that in 30 seconds, because I have a follow-up on that.

Mr. CALOMIRIS. My CoCos proposal gets right at your question—

Mr. GARRETT. Okay.

Mr. CALOMIRIS. —and has to do with how you bring market forces and market discipline into the capital adequacy discussion. So the point is, if you require bank CEOs to have to pay attention to whether the market equity ratio is falling and have to worry about those consequences, they will make sure to maintain capital adequacy.

So that is—I have been working on exactly the topic you are talking about for about 20 years, and I think that would be—

Mr. GARRETT. So is there a perfect or a best number? A 5, 10, 15, 20, higher percentage?

Mr. CALOMIRIS. My view is—and it is not based on anything too precise or scientific, to be quite frank—is that alongside a 10-percent equity-to-assets minimum requirement, I would have an additional 10 percent of CoCos that would convert into equity if you ever got below that 10-percent market equity ratio.

Mr. GARRETT. So we saw there was a complete failure of Basel II, and now we have Basel III. Is Basel III going in the right direction or is it going in the wrong direction with regard to all of this?

Mr. CALOMIRIS. Basel III depends, as Mr. Michel said, on those risk weights being properly calculated by the banks. And I don't really believe in that.

But I do believe that if we had my proposal on the table—

Mr. GARRETT. Okay.

Mr. CALOMIRIS. —if the banks had to comply with that, that would incorporate market perceptions of risk and value, and we would have an automatic, real risk-weighted capital system.

Mr. GARRETT. Let's bring it down to the other end.

Dr. Michel, you can comment on that, but can you also comment on the last question of the ranking member? Is it regulation in the market that is affecting lending in the marketplace today, or is it just the marketplace?

Mr. MICHEL. So, first, since it is in my brain, I agree with Charlie's proposal. It is a great idea. And if it were a question of Basel III or the convertible requirements, I am all for the convertible capital.

Mr. GARRETT. There you go. We have agreement.

Mr. MICHEL. Yes.

And then as far as the liquidity and regulation issue, I think it depends on how we are defining the terms. In my testimony, I did not specifically address, in my mind anyway, higher regulation impacting liquidity in the market as we now stand. I think—

Mr. GARRETT. I should say, not regulation, but the fallout of the regulation, which is the capital requirements.

Mr. MICHEL. I personally believe that it is more of a supply issue than a liquidity issue. I think we are forcing banks to hold more liquid assets and hold more assets in general, and—

Mr. GARRETT. Okay. And that affects their lending ability.

Mr. MICHEL. And it affects, ultimately, liquidity and lending ability—

Mr. GARRETT. Thank you.

Mr. MICHEL. —in the long run, yes.

Mr. GARRETT. Thank you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Texas, Mr. Hinojosa.

Mr. HINOJOSA. Thank you, Mr. Chairman, and thank you, Ranking Member Waters, for holding this important hearing today.

My first question is going to be for Dr. Norbert Michel.

In your testimony, you chide the Federal Reserve's actions during the 2008 financial crisis. According to the GAO report cited in your

testimony, from December 1, 2007, through July 21, 2010, the Federal Reserve loaned financial firms more than $16 trillion through its broad-based emergency programs. If I understand your testimony correctly, you suggest that the Fed should not have loaned firms any money during that crisis, but rather conducted its traditional open market operation in order to provide market liquidity.

Given that enormous amount of direct liquidity provided by the Fed, do you think the Federal Reserve could have similarly prevented the collapse of the financial system through the traditional open market operations alone?

Mr. MICHEL. Okay, so, technically, I didn't say that they shouldn't have done that in the crisis. And I don't think that they had any choice at that point, given the system that we have.

Now, ideally, what I—so what I said is that, ideally, we would have a system that would not let them do that. That is what I said. And, yes, I do think that would be better.

I do think that if we reformed the primary dealer system so that it is not just a small group of banks involved in Treasury auctions, that it is all banks, say, with top two CAMELS ratings, then, yes, that would greatly improve liquidity and greatly reduce the chance that we would ever need any sort of emergency lending at all.

Mr. HINOJOSA. Dr. Parsons, I really enjoyed your presentation.

Do you agree with Dr. Michel that we should get rid of the risk-based capital standards? Why yes, or why not?

Mr. PARSONS. I don't really see any alternative to the government playing some role in establishing capital standards. Banks are going to be a major part of our financial system, and the dangers of things like runs in different parts of the banks, different activities, are ever-present. And in order to ensure that the system will live through turbulent times, the public has to take a role in establishing some standards and in guaranteeing that the bankers have equity at risk.

I think we all agree it is equity at risk that we want as a way to help guarantee that the banks are prudent in their borrowing. And the only way to guarantee that that equity is at risk is a public authority has to mandate it when you allow the bank to have a charter and do its banking rules.

I think, as I wrote in my testimony, banks are very complex institutions; they do a lot of different things. So you absolutely have to sometimes be differentiated when you are examining them and look for specific risks and look for different amounts of risk. There are lots of ways to do that. Risk-weighting was one way to do that, but also in the stress tests, that is another way to do it.

So I think you have to have a public authority who gets in and pays attention to the risks. If you try to stand back, you will be sideswiped sooner or later. How the public authority, the supervisors, get engaged on the different kinds of risks can be done in many different ways. It is very complicated, and I am very open-minded about all of those different ways.

Mr. HINOJOSA. Thank you for your response.

My next question is for Charles Calomiris. In your testimony, you suggest raising the minimum equity asset ratio to 10 percent and raising the minimum equity-to-risk weighted asset ratio to 15 percent.

What is your advice to commentators trying to protect the "too-big-to-fail" banks if they were to follow your recommendations?

Mr. CALOMIRIS. My idea in proposing the 10- and 15-percent increases—which aren't very big increases, but they are increases from where we are now—my idea is those aren't going to be very effective if we don't combine them with other things that make the measurement of risk realistic.

And that is why I really emphasize that my point to them would be that this isn't going to work either unless you do something to credibly measure risk. Right now, we allow banks to measure risk for us. That is something anyone who has had children knows is not a very good strategy. So CoCos are an obvious way to get around this problem.

I should also point out that there are some other good ideas which I didn't have time to get into. We can use markets to measure risk, to some extent, too. Senator Barbara Boxer's staff and I, when Dodd-Frank was being debated, came up with some ideas for that, and I am happy to go into it—

Chairman HENSARLING. Dr. Calomiris, regrettably, the time of the gentleman from Texas—

Mr. CALOMIRIS. And so, there are other ideas I would be happy to go into about how to improve it.

Chairman HENSARLING. The time of the gentleman from Texas—

Mr. HINOJOSA. Thank you.

Chairman HENSARLING. —has expired.

The Chair now recognizes the gentleman from Missouri, Mr. Luetkemeyer, chairman of our Housing and Insurance Subcommittee.

Mr. LUETKEMEYER. Thank you, Mr. Chairman.

And welcome to our guests this morning.

Dr. Chakravorti, last week the European Commission published a consultation paper on the potential impacts of capital requirements on European financial institutions in the EU economy. The paper makes clear the importance of examining the impact of higher capital requirements on lending and the economy.

European regulators are going to specifically look at the appropriateness of capital requirements, the impact of capital requirements on long-term investments and growth, and the impact of capital requirements on lending to small and medium-sized enterprises and consumers. They have also committed to hold public hearings on the issue.

My question to you is, has the Federal Reserve or any U.S. financial regulator expressed the need to examine the implications of capital requirements? It looks like the Europeans are sitting down and studying it. Are we doing that?

Mr. CHAKRAVORTI. Thank you for the question.

Let me first say that I don't follow the European context, but I applaud their decision to study the impacts. I think that is a very important factor in deciding regulation, and regulation is a continuous process. And it is very important that research is done in that direction, so I applaud their decision to do that.

Mr. LUETKEMEYER. Don't misunderstand me. I am not supporting them and their models and what they do. My concern is they are

willing to do the studying before they implement the rules and regulations. It looks to me like we failed to do that in this situation.

My question is, do you see us, in any respect, studying this beforehand, before we make the rules and implement—

Mr. CHAKRAVORTI. I hope in the future that we do study it before we go further in the rules, absolutely.

Mr. LUETKEMEYER. Okay.

Dr. Calomiris, we had a great discussion here with regards to capital Tier 1, risk-based assets. Tom Hoenig, who is the Vice Chairman of the FDIC—whom I know pretty well and have listened to on numerous occasions—has written extensively, and spoken extensively on capital and risk-based assets and things like that. He believes that we need to have about 10 percent Tier 1. And then, after that, he does not take into consideration a lot of the other risk-based assets that are there, believing that we need to have a Tier 1 solid capital structure to be able to be the initial backstop. The rest of it is fine, but he believes we need to have at least 10 percent Tier 1.

It appears you are in agreement with that. Would you like to elaborate on that a little bit?

Mr. CALOMIRIS. I agree that there should be a focus that we have a 10-percent Tier-1-to-asset ratio, but I don't think that is enough. All that does is basically say that all assets have a risk weight of 1. But if you do that, there is a danger that banks might decide to start making assets have higher risk weights than 1 without that simple leverage ratio really solving that problem. That is why the CoCos requirement kind of fixes that.

So I think that is a necessary part of the solution, but it is not sufficient.

Mr. LUETKEMEYER. One of the things that I heard Dr. Michel talk about was the CAMEL ratings. And CAMEL ratings basically rate the entire bank. It rates your management; it rates your earnings and your capital and also the risk that you take. And, to me, it is important that you have a bigger picture.

We have been focusing just on the risk of the assets, but I think if you have somebody who is a CAMEL-1-rated bank, you have excellent loans, you have excellent management, they know what they are doing. And so I think it is harder to put a square peg in a round hole, and I think that is what we are trying to do here sometimes. But I think the CAMEL ratings are a good indication of the management of the bank and all of the—a bigger picture. Let me put it that way.

What are your thoughts?

Mr. CALOMIRIS. I have been doing research on exactly this, and it makes the same point I was just making.

The leverage ratio is sort of all about capital, but it is not about earnings. And, in fact, it is what I call balance sheet fetishism. Banks lose value because their cash flows shrink. Banks aren't just assets, they are not just tangible assets, and we are acting in our capital regulation as if that is true. And banks are in trouble, when they get into trouble, because their earnings fall.

So the point of that camel story that you were you just saying is, we need more than just a leverage ratio. And that is why I am

focusing on those additional items. So the two actually fit together well.

And I know that I am using your time, but I do want to point out that I would like to also, if someone is interested, talk about the cost of capital requirements on lending. Ms. Waters raised that. And I would like to have a chance to talk about that. Because I don't agree with some of the panelists—I think those costs are there, but I think we should do it anyway.

Mr. LUETKEMEYER. Okay. You managed to use up my time. But I have one quick question—you made a comment a while ago with regards to banks need to get out of real estate lending, and I would like to have somebody elaborate on that after a while. Because that is kind of a scary thought, to get completely out of real estate lending, unless I misunderstood you.

Chairman HENSARLING. A very brief answer.

Mr. CALOMIRIS. I am not suggesting they get completely out of it, although I would point out that 100 years ago national banks were prohibited from any real estate lending based on the correct perception that real estate lending is very—

Mr. LUETKEMEYER. You realize you are making a really good case for GSEs this way.

Mr. CALOMIRIS. There is more than one way to redirect real estate lending.

Chairman HENSARLING. The time of gentleman has expired.

The Chair now recognizes the gentleman from Massachusetts, Mr. Lynch.

Mr. LYNCH. Thank you, Mr. Chairman.

And, Dr. Calomiris, I might give you a minute or so to expand on what you have been talking about at the end of this.

We are dealing with a situation now where, look, we have higher quality, and greater quantity of capital in banks than we did before Dodd-Frank, and what we are struggling with is how much capital to require banks to hold without leaking out into an area of growth where we may inhibit the banks from doing some of the other things we want them to do. And we are trying to rightsize this in a way that optimizes the use of capital in a way that creates that stable environment, yet, again, doesn't limit growth and other activities.

Dr. Parsons, we have a situation now where we have foreign affiliates of U.S. banks that are dealing in swaps, and in many cases they are not cleared swaps, and they are transferring the risk back to their deposit-backed banks here in the United States. And the risk that is being created there is not something that I think is being addressed in our discussion here today.

If a foreign affiliate implodes because of uncleared and risky swaps transactions, that liability, that risk immediately comes right back to the FDIC and on that bank that should be carrying sufficient capital but it hasn't because it is acquired, the risk has been acquired by a foreign affiliate.

Is there anything that you see in either the risk-weighting analysis or the stress testing that could get at that risk that is offshore that we don't require—the financial institutions are arguing that they shouldn't be required to post collateral for their foreign swaps

affiliate, yet it does create risk, and there seems to be a disconnect here.

Mr. PARSONS. So certainly the supervisors—the Fed certainly has authority to examine the company's full trading in swaps, including the impact on its foreign affiliates into the American bank. It is a problem, as you indicated, that some of that trading would somehow be covered by the FDIC. That doesn't necessarily make sense. But there are a number of actions going on that can address that.

So capital requirements at the bank holding company level can take into account the riskiness of that swap dealer activity. The living wills effort is an effort that can help shape how that risk can travel across boundaries and units, allowing it to be brought back. As well as, in the process of trying to set up the orderly liquidation authority in the right way, there is this effort to prevent the swaps from being settled immediately so that there is time to move things.

All of these are in process, but none of them have been completely implemented, except the authority for capital requirements is definitely an authority that the Fed has.

Mr. LYNCH. Okay. Thank you.

Dr. Calomiris, you wanted to talk earlier about some of the costs that you think this activity might require, but you also said that it is stuff we should do anyway. Could you go ahead and elaborate on that?

Mr. CALOMIRIS. Thanks very much for giving me the chance.

Mr. LYNCH. No problem.

Mr. CALOMIRIS. I will just mention this because you may want to have a staff person look at this. So if you look at page 12, which is a reference list for my testimony, you will see there are 4 articles there by Shekhar Aiyar and several other people, including myself, all published in refereed journals. What these articles do is they look at the U.K.'s experience with what effect capital requirement changes have on lending supply, because that is the environment where we can observe it, because they are varying them a lot on a bank-specific basis. There is also research in Spain.

And they all corroborate the same conclusion, and this is a scary conclusion: If you increased capital requirements for a bank in the U.K. from 11 percent, which was the mean, to 12 percent of assets, you would cause them to reduce the supply of lending to nonfinancial firms by about 7 percent. It is a huge effect. It is about 10 times what the Basel Committee thought the effects were when they were contemplating capital requirement increases.

So I want to emphasize, it is not correct to say that this doesn't have a social cost. It does. But it is worth it. It is worth it because, if the banking system implodes, that is going to be an even worse contraction of credit. So you have to run a safe banking system even if it means in the short run you are having some negative effects on loan growth.

That is my answer to your question and also Ms. Waters' question. It is not a free lunch. It is not even close to a free lunch.

Mr. LYNCH. I yield back.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Michigan, Mr. Huizenga, chairman of our Monetary Policy and Trade Subcommittee.

Mr. HUIZENGA. Thank you, Mr. Chairman.

Over here, gentleman. This new configuration makes it feel like you are in the park across the street from Rayburn.

Dr. Calomiris, I would like to bite on your debate that you threw out there a question or so ago. I am a former licensed REALTOR®. I would love for you to hit on the cost of capital on lending ability, which you said you wanted to address, and then as you started to address, real estate lending and how that may be affected.

And then I would like to move on, Dr. Michel, to Basel and transparency there.

Mr. CALOMIRIS. So let's think about where we are. Let's just take January 2008 for the banking system. Seventy-five percent of loans are in real estate, which means either real estate development loans or mortgages.

Real estate is highly correlated and in tune with the business cycle, and it is very hard to shed, as a bank, those real estate risks during a downturn, which is why, historically, banks have not been real estate lenders.

If you go back to the 1920s, real estate lending was done in the United States by insurance companies and building and loans, neither of which financed real estate lending with short-term debt because it is crazy to finance real estate lending with short-term debt.

We do it because we decided politically to do it. We decided with deposit insurance to make that happen. It wasn't a good idea. And as banks have lost market share, deposit insurance has kept them from shrinking, which they should have done, and instead they have pushed them into doing more real estate lending.

Real estate lending should be done by maturity-matched intermediaries, real estate investment trusts, insurance companies, capital markets of various kinds. It should not be done by short-term debt. That is a mistake that we did in the 1930s and since and it has cost us. It is politically almost impossible for people sitting in this room on both sides of the aisle.

I am not talking about eliminating it. I am talking about reducing it. Seventy-five percent is a ridiculous number. We should be phasing it down.

Mr. HUIZENGA. Thank you for getting both the REALTORS® and the bankers to call my office here very shortly. Very few people can unite them that way.

So I do want to then, really quickly, if you could touch on the liquidity standards, capital and liquidity standards. You seemed to be indicating that there is a cost of that on lending ability for banks. If you could really quickly hit that, and then I want to hear from Dr. Michel.

Mr. CALOMIRIS. There is no avoiding the fact that if you tell bankers they have to keep some of their portfolio in cash, that tells them that they can't keep all of it in loans.

My point is, if you look prior to the runups in the late 1990s and 2000s, banks in the United States always had riskless securities,

that is Treasuries plus cash, in excess of 25 percent. In fact, it was more like 40 percent during most of the post-World War II era.

What we have done is, look at where we got by January 2008 where it was 13.5 percent for the largest banks. They were doing that because they could, because they had the safety net.

The point is, sure, of course, if you require banks to hold more cash, it means they will do less lending, but that is not bad. You should require them to operate safely. They shouldn't be able to have 100 percent of their assets in loans.

Mr. HUIZENGA. Okay.

Dr. Michel, Basel, is there enough transparency there on the banking supervision, and your thoughts on that?

Mr. MICHEL. Okay. And I know I am screwing things up, but I would love to add something to what Charlie just said.

Mr. HUIZENGA. Yes, but you have a minute and 15 seconds. Go.

Mr. MICHEL. All right. On the transparency stuff, I don't know how we are—I hate to say this—but it depends on exactly what we are talking about. Again, if you go back and look at a 1993 Boston Fed paper, a 1996 OCC press release, a 2006 OCC press release, they basically all say the same thing, that roughly 80 percent of the swaps market is in the large banks, we know it is in the banks, and don't worry about anything, the right people are taking care of this. We are looking at it. We are dealing with it.

So that is transparent. The whole thing was transparent. Everybody knew what they were doing. So I don't know what we added. It was already transparent, as far as I am concerned.

And then I still have 30 seconds. So I agree with Charlie that it is a stupid idea to do short-term lending to fund long-term projects like real estate. We had a crazy system before the 1930s, it got crazier after the 1930s, and we haven't stopped doing that.

But we have based all of this on the wrong premise. If we were talking about a company like Walmart, Walmart has hundreds of millions of customers, and millions of suppliers. Many of those businesses depend on Walmart for their living. You can make exactly the same arguments about Walmart that you can about banks. And if we were talking about putting a Federal regulator in charge of saying who Walmart can sell to, and who they can buy from, we would all say that is insane, but that is exactly what we are doing now with the banks.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from California, Mr. Sherman.

Mr. SHERMAN. Dr. Michel, the one difference with Walmart is they don't have hundreds of billions of dollars of liabilities. And I—

Mr. MICHEL. Technically, they do.

Mr. SHERMAN. And reclaiming my time. I certainly don't see hundreds of billions of liabilities on their balance sheet. Of course, there are contingent liabilities.

I want to shift over to credit rating agencies. We have to have risk-based capital, so bank examiners have to determine risk. Banks all too often just decide to put all their money in marketable securities. So you might have a portfolio of 1,000 marketable securities.

Now, the credit rating agencies say: Don't regulate us. Don't sue us. Let us do what we do. And if we ever screw up, it is your fault for relying on us.

Now, let's say you are a bank examiner. You go in to examine a bank and they have 1,000 different portfolio securities, every one of which has a rating. The easiest thing to do is to just say, "Okay, well, here is your risk base. You have some B-plus, you have some A-minus. Those are your risks." What the credit rating agencies say is, "Ignore our ratings."

How could a bank regulator independently evaluate the creditworthiness of every marketable bond and CBO in that portfolio given the fact that the bond rating agencies charge about a million dollars per issue, so in theory, at their rates, that is a billion dollars' worth of work?

Dr. Calomiris, can you tell me, could a bank regulator do anything other than rely upon the ratings if they are examining a bank with 1,000 different marketable bonds?

Mr. CALOMIRIS. I came to the conclusion that they can't. And that was the basis for the work that Senator Boxer's staff and I did during the Dodd-Frank discussion, and we drafted an amendment that would require the reform of the ratings so that they would be useful credibly. I won't go into that—

Mr. SHERMAN. I will also point out that we had the Frank and Sherman amendment which ends the idea that the issuer selects the underwriter, just as—selects the evaluator. I assure you that if I could have picked the person to grade my tests in law school, I would have done better, especially if I also paid them, and especially if they made a million dollars per test. So the idea that we can just let the credit rating agencies sell their ratings to be selected and then say the solution is that nobody should rely upon them is manifestly false.

In evaluating risk, you have not only the default risk, but the interest rate risk. In the materials that were prepared for us for this hearing, they describe risk-based capital and said, in effect, sovereign debt of the United States would be given a zero risk because there is no default risk.

There is a huge interest rate risk. If you take in a bunch of 30A deposits to buy a bunch of 30-year Treasuries, is it true that under Basel III you assign a zero risk to a bank that borrows for 30 days and lends to the U.S. Government for 30 years, Doctor?

Mr. CALOMIRIS. Yes.

Mr. SHERMAN. Is there anybody in the business world who thinks it is risk-free to lend for 30 years and borrow for 30 days?

Mr. CALOMIRIS. No.

Mr. SHERMAN. I would also point out the effect this has on our districts and the small businesses. A few people have been bored in this room listening to me.

So if you take a huge risk by buying a 30-year bond when you are borrowing your money for 30 days, the regulators come in and kiss you on both cheeks. If instead you make a 1-year loan to Jack's Pizzeria in my district, they come in, and what kind of reserve do they require?

Mr. CALOMIRIS. The capital weight would be 100 percent, probably, for that loan, risk-weighted assests.

Mr. SHERMAN. A hundred.

Mr. CALOMIRIS. Yes, instead of zero.

Mr. SHERMAN. So if you play on Wall Street and you invest your money on Wall Street, you can have enormous upside and downside risk, and if the upside comes through, you can get a big bonus, and the regulators come in and say, "You are not risky." Even though the riskiest thing you could do, that I can think of, is to borrow money short, and lend it long, but if you lend to small businesses in our district, pow.

I yield back.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Wisconsin, Mr. Duffy, chairman of our Oversight and Investigations Subcommittee.

Mr. DUFFY. Thank you, Mr. Chairman.

It is fascinating listening to my friends across the aisle as they have grown over the last 4½ years. They started off telling us how Dodd-Frank was going to end "too-big-to-fail." It was a sure fix to end "too-big-to-fail," if you listened to the debates with former Chairman Frank. That is the reason why we have a 2,000-plus-page bill while we have 400 new rules.

But the tone has changed. They are now admitting that Dodd-Frank, in all of its sweeping reform, does not end "too-big-to-fail." Does the panel agree with my Democrat friends that Dodd-Frank doesn't end "too-big-to-fail?" There is no disagreement on that? Okay. I didn't think so.

Mr. PARSONS. I disagree.

Mr. DUFFY. You disagree with Republicans and Democrats that it ends "too-big-to-fail?"

Mr. PARSONS. I think it makes very important efforts that are having an impact on preventing that from happening.

Mr. DUFFY. But it doesn't end it. And I think maybe we could start, instead of having a movement and a push now to say 2,000-plus pages, 400 new rules, we didn't get it right, so let's add more legislation, more rules, and more regulations onto the ones that already exist, I would actually buy into, let's repeal Dodd-Frank because it doesn't work, and it was a failure, and let's work together with a blank sheet and see how we can learn from the lessons of 2008 and work together to get reform that is actually effective.

But I want to move on to risk-weighted assets. Risk-weighted assets, does that concentrate risk?

Mr. MICHEL. Do the risk-weighted assets themselves concentrate risk? Because they don't necessary address risk concentration, if I am correct there. I believe they left that out. I don't believe they have addressed that. So—

Mr. DUFFY. But would it encourage banks to uniformly buy similar assets?

Mr. MICHEL. Oh, I see. Well, yes, in that sense, yes. You have particular assets that have lower weights, so those are going to tend to be favored. So in that sense, yes.

Mr. DUFFY. And if we have more banks holding similar assets, does that create more systemic risk?

Mr. MICHEL. I would argue yes.

Mr. DUFFY. Yes. So risk-weighted assets actually can create more risk, more systemic risk, than actually alleviating that risk in the marketplace. Am I wrong on that?

Mr. MICHEL. No, I think you are correct on that.

Mr. DUFFY. And how well have our—

Mr. MICHEL. And the weights have to be right, and we have already messed that up. So—

Mr. DUFFY. I want to ask you about that. How well have the regulators actually done in getting this right?

Mr. MICHEL. Personally, I don't want to—I would say the regulators are not clairvoyant, just like anybody else. So I don't mean this in a bad way necessarily; I just don't think that you could expect anybody to get it right.

Mr. DUFFY. Say that again.

Mr. MICHEL. I just don't think that we could expect anybody to get that right. The stress tests are a great example. I have a lot of experience with economic projections, and I think if you gave me 10 minutes, I could teach pretty much anybody with an Excel spreadsheet to do what I can do. It is really not as sophisticated as we pretend in economics. If we look at inflation, something like inflation, over the last 10 or 15 years you can't beat a one-period forecast of using last period's inflation.

Mr. DUFFY. And so, we are trying to find this right balance. We all agree that we need sound, smart regulation in our financial sector. No one disputes that. But we need to have some balance between regulation and market discipline. Is that a fair statement?

Do you think we now have, to the panel, the right balance with sound regulation and market discipline?

Mr. MICHEL. No.

Mr. DUFFY. Yes?

Mr. PARSONS. I think we shouldn't think necessarily of market discipline and regulation as if they are opposed to one another. You have heard from the panel ideas for ways to structure incentives by regulation, the CoCos that are being proposed, that is regulation to create market incentives. When we talk about capital standards, we are talking about demanding that the equity owners have skin in the game to create market incentives to manage the bank right.

So what we are trying to do in crafting good regulation is to create a healthy market. That is that we are trying to do.

Mr. DUFFY. Right. And do you think we have been successful in the United States in doing that?

Mr. PARSONS. I think you heard from lots of people that we have made great strides since the crisis to right the ship. There are still problems, obviously, and there are going to be debates going on for a long time. But I think it is important to say we have made some really great strides.

Mr. DUFFY. It seems like my friends across the aisle will oftentimes blame markets for the crisis, and because, they will allege, markets fail, we need to look to regulators and give them more power and authority. But isn't it fair to say that the regulators failed in the lead-up to the 2008 crisis?

Dr. Calomiris?

Mr. CALOMIRIS. Absolutely. And I don't know if we have time for me to answer your first question, we probably don't, but yes.

Mr. DUFFY. I haven't heard the gavel yet. So maybe you can start.

Okay.

Chairman HENSARLING. Now, the gentleman has heard the gavel. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Georgia, Mr. Scott.

Mr. SCOTT. Thank you, Mr. Chairman.

I would like to talk about, get the panel's thoughts on Basel III's leverage ratio and its impact on banks. The crux of the matter is this: These new capital requirements for our prudentially regulated financial institutions are indeed vast in scope, and indeed, they are a necessary means to ensuring that banks are properly capitalized, as warranted under Dodd-Frank.

But there is one narrow aspect that seems to be working at odds with the principles of the Dodd-Frank Act, as well as long-established market regulations, and that fact is this: End-user customer margins, which have long been posted to bank-affiliated clearing members for the clearing of derivatives, are treated punitively.

Recently finalized capital rules consider client margins something the bank can leverage, even though Congress has for decades required that customer margins posted by clients for cleared derivatives must remain segregated from the bank-affiliated clearing members' own accounts and that it should be treated as belonging to the customer.

Now, here is the first question. How is it now assumed that the margin can be used by the bank as leverage? More specifically, the Basel III leverage ratio now extends to off-balance-sheet exposures that are not driven by accounting rules.

And in this off-balance-sheet context, my second question is, why is customer margin collected by a bank-affiliated member of a clearinghouse being treated as something the bank can leverage when Congress has long required such margin to be segregated away from the bank's own resources?

Could I get a comment on that from Dr. Parsons or Dr. Michel, and—I don't want to murder those last two names there, so I will say the two gentlemen on the end whose names begin with the letter "C."

Mr. PARSONS. I think the basic issue you are bringing up about customer margin, the reason why it has become an issue as you highlighted, the problem is you are dealing with a business to be a futures commission merchant or a swap dealer collecting margin, that is a business, and that business has some risks. They are trying to measure the size of that business as a proxy for measuring the risk of that business.

And the customer margin is part of what defines the size of the business. If you have one company offering more swaps to its customers and having larger margin, you have a larger business. And so you need to think about the riskiness of that business and charge capital for it.

Now, if it is true that you can successfully segregate it and guarantee that there is never any real risk of those funds getting back to the customers, there might be some way around that. And it is also true that there should be a way of improving the measurement

of risk. So with derivatives themselves, with the market value of the derivatives themselves, they calculate these potential exposures instead of using book value of the assets. And that is one, I think it is clunky, but it is an effort to do what you want done.

Mr. SCOTT. But don't you feel, though, that the Basel III leverage ratio misinterprets the exposure-reducing effect of segregated margin?

Mr. PARSONS. I think the problem is people want to either treat things one way or another, and we need to arrive somehow at a better destination. Treating it, that dollar, as being 100 percent exposed maybe is the wrong thing, but saying because it is segregated, legally there is no risk in that business, that is clearly also wrong. So we are sort of—we are finding that we need to get a more sophisticated appreciation of the problem. So something needs to get done to improve it.

Mr. SCOTT. Okay. My time is up. I'm sorry.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from South Carolina, Mr. Mulvaney.

Mr. MULVANEY. I thank the chairman.

Gentlemen, I want to talk about something a little bit different here today. We had the opportunity to talk to Mr. Hoenig about ways to relieve regulatory burdens on various entities.

Some interesting work, by the way, that other members of the committee and I have been discussing—myself, Mr. Schweikert, and Mr. Hill have tried to figure out a way to carve out certain banks from the larger regulatory scheme, to say, look, there are some banks that don't need the extra level of oversight that we get with Dodd-Frank. They aren't sophisticated. They aren't interconnected. They don't present a systematic risk. And many times that is not based on their size, but by their business models.

I am just curious if anybody has given any thought to that, if they are familiar with what Mr. Hoenig had talked about, and if they had any thoughts on this concept of creating, not a second banking system, but a different type of system where you could opt out of certain regulatory requirements if you were a very simple, well-capitalized, well-run bank. And I would be curious to know opinions in favor of that and opinions against that as we simply try and gather information and do our research.

Dr. Parsons, do you want to start?

Mr. PARSONS. As I indicated in my testimony, it is true that there are lots of different types of banking activities, and this effort to have many, many different ratios is an effort to cope with the many different activities sometimes bundled into one bank. If you can find a way to carve some out and define them and say, "I am only doing this, and therefore I only have certain risks," and if that is real, then that should be a sensible way to adjust the capital ratio.

Mr. MULVANEY. Yes, sir.

Mr. MICHEL. I would be in favor of it as well. In a more expansive way, I would be in favor of it for everybody. Instead of letting the regulators decide what is really risky and what is really complicated and what is really simple, let the markets decide. Have the

carve-out. Let them do that. Let the investors decide on their own and let them take the loss.

Mr. MULVANEY. Yes, sir.

Mr. CHAKRAVORTI. I think if you tailor according to the underlying risks and what you outline, that is definitely an advantage for the system as a whole.

Mr. MULVANEY. Dr. Calomiris?

Mr. CALOMIRIS. I agree. I think if we can get to the point where we know bankers are playing with their own money and not ours, and we also know that they are not doing things that are very hazardous in terms of highly correlated risks, so that they are not creating credit crunch risk for the whole economy when we have a downturn, then we don't have to micromanage with this excessive interference in how they run their business. And I think, again as Dr. Michel said, this applies to all banks.

I would point out that the regulatory costs are very different from different regulations for different kinds of banks. If you ask small banks, they will tell you QM compliance, qualified mortgage compliance is very costly for them. If you ask large banks, they might come up with a different answer.

So I think the point is, this micromanagement is a lose-lose. It makes our banks not perform well, and it makes them not perform well for us, not just for their stockholders. So, yes, that is why we want to have good capital rules, and I think the CoCos for the large banks would get us there.

Mr. MULVANEY. The one criticism I have of what Mr. Hoenig has suggested is that he seems to want to limit it to community-based financial institutions and he doesn't want to take it to the larger scale.

By the way, for purposes of the discussion, his brief summary is that banks that hold effectively zero trading assets or liabilities, banks that hold no derivative positions other than interest rate swaps and foreign exchange derivatives, and banks whose total notional value of all the derivatives' exposures would be less than $3 billion, that is the basic concept that he is trying to lay out there. But he limits it to community banks, to smaller banks.

Is there any reason to do that, in your mind, Dr. Calomiris?

Mr. CALOMIRIS. I would say no. I know Tom pretty well. He comes from Kansas. And the banks that are sort of in his experience, in his frame of reference, are pretty small banks, and I think he has a lot of sympathy for them, especially since a lot of them have to also compete with the subsidized farm credit system, which doesn't have to retain branches but gets to raise its money through a GSE.

So small banks in places like Kansas are really taking it on the chin. But that doesn't mean we should only focus on them. I think it needs to be a broader focus.

Mr. MULVANEY. I thank the gentleman.

I yield back the balance of my time.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the gentleman from Illinois, Mr. Foster.

Mr. FOSTER. Thank you, Mr. Chairman.

And I would like to say that as the author of the Dodd-Frank amendment that authorized contingent capital but did not mandate contingent capital, I am thrilled with the fact that there appears to be the possibility of some bipartisan, maybe even consensus, that this could be part of the solution to strengthening capital requirements beyond what is already in Dodd-Frank.

It is interesting to go through the history of this. To my knowledge, it is Mark Flannery of the University of Florida who first significantly—for the record, Dr. Calomiris gave me a strong nod on that—whom I think deserves credit for raising this in a significant way. Then the Squam Lake Working Group later picked it up and identified it as one of the major elements of strengthening bank capital requirements.

I was particularly influenced by an analysis by Steve Strongin's group at Goldman Sachs where they did a retrospective analysis of the failure and concluded that had banks been required to hold contingent capital, they would have raised capital early in the crisis when they still could have, and that at least the banking part of the crisis would have largely been avoided.

And this has to do with a point that Dr. Calomiris has made, which is that they would be worrying not about being insolvent, but being in violation of capital requirements or the trigger mechanism.

The Squam Lake Group worked through a variety of trigger mechanisms. You appear to be an advocate of a market-based one. There are regulatory. There are a variety of these.

At the time of the Dodd-Frank hearings and the amendment that I got adopted into both the House-passed and eventually the final bill, it was difficult to mandate, to adopt a mandate, because there was no experience with these. Since that time, the Europeans have a lot of experience, successful experience, I believe, with CoCo bonds with a variety of trigger mechanisms. So I think there is a lot to be learned, but I think they are generally viewed as a successful experiment.

Now, that is particularly the case with the Swiss banking system. Switzerland is in a tough place because they have giant banks, which they want to have, but their economy isn't big enough to realistically backstop. So they have had to have a very deep capital stack to handle their "too-big-to-fail" problem, which is handled significantly with CoCo bonds.

And so I think that there is a lot more experience today than there was at the time we passed Dodd-Frank, and I think that proceeding in this direction is something that, on a bipartisan basis, we really should proceed on.

Okay. So the first question I have here is, what has been learned by the European experience in this, particularly in terms of the pricing of these instruments?

Dr. Calomiris?

Mr. CALOMIRIS. We have learned a few things. One is that these issues were oversubscribed by the market. A lot of people said the market wouldn't want to buy them. They were oversubscribed. So obviously the market does want to buy CoCos. Institutional investors were very attracted to them.

But we haven't really tested them because the test of them comes on the downside. And my own view is that the market trigger is a much better idea than what the Swiss have used, which is a regulatory trigger, precisely because regulators and supervisors are not dependable during downturns to really identify the losses and to trigger the mechanism, because it is going to be very politically difficult to do it.

And, by the way, all the things you cited, from Flannery through Goldman Sachs, are cited in my study, which is a review of that whole literature. And I would associate myself strongly with everything you said.

Mr. FOSTER. Let's see. So I will give you also the pricing. There is the question of whether they oversubscribed. The thing that I found particularly encouraging about it, if you looked at the presentations to potential debt investors by organizations like Credit Suisse, is they have exactly the kind of transparency that you would love to see. In order to get a good price, they have to reveal their books to the market. And so you really get this market-based feedback that I think is a fundamentally good addition to regulatory oversight.

My next question is, what areas of U.S. law would need to be changed in order to actually implement contingent capital? These are changes in tax law, for example. You mentioned that there would be requirements or prohibitions from different groups on investing in these, because obviously you don't want the "too-big-to-fail" firms investing in each other's contingent capital.

So what are the specific other legal changes that would be necessary to actually get this implemented in the United States?

Mr. CALOMIRIS. I think the most desirable obvious one is to make it clear that, at least for my version of CoCos, they should be treated as deductible debt.

Now, the key issue here, and it also affects pricing, is are we talking about bail-in CoCos, which I am not talking about, or are we talking about these sort of preventative CoCos that make banks raise capital? In my version, I would say that these CoCos are almost never going to convert because the whole point is to make banks avoid conversion. Whereas the bail-in CoCos that some people have devised, including, unfortunately, I think the Swiss model, they convert at very low regulatory trigger ratios. And so those are going to have to be priced with higher yields because there is more risk associated with those.

So my answer is, I think the tax law has to recognize that if the CoCos is as CoCos does, if they are my kinds of CoCos, they should be treated as debt. If they are bail-in CoCos, maybe they should be treated as a mix of debt and equity for tax purposes. So there is a little bit in the weeds here. I am sorry to give such a technical answer.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from North Carolina, Mr. Pittenger.

Mr. PITTENGER. Thank you, Mr. Chairman.

And I thank each of you for being with us today.

Senators Vitter and Brown have recommended that the banks maintain a leverage ratio of 15 percent. Do you believe that this

is an appropriate means by which we should address this, and would you be supportive of it?

Dr. Michel?

Mr. MICHEL. It gets to one of the problems, which is that this is an arbitrary—these are all arbitrary numbers. So, that is one issue. But if we are talking about simply raising the number and leaving all the other regulations and requirements in place, then, no, I am not.

Mr. PITTENGER. No, I am not saying they need to be. It was an offset to that. It would require a less intrusive regulatory environment to do that.

Mr. MICHEL. I am sympathetic to the idea that you want them to hold more capital, but I would still think that the contingent convertible debt is a much better way to go than something like that. And it has to have the offset.

Mr. PITTENGER. Sure.

And, Dr. Calomaris, you have already spoken to that, but I would be glad to have you—

Mr. CALOMIRIS. Just to say briefly, my version has 20 percent absorption capacity, but it mixes it in equity and CoCos 10 and 10, rather than just 15 in equity. And the point is that during a downturn, this is more robust, and it relies on the incentives of banks to make sure that we are measuring real capital. That is, I think, what is missing in the Brown-Vitter proposal.

But I have supported the idea of the Brown-Vitter proposal, which is we need to increase the absorptive capacity. I want to make it 20 percent, but make it 10 and 10 rather than 15 all equity.

Mr. PITTENGER. Dr. Chakravorti, do you have a perspective on this? Is there a sweet spot as it relates to capitalization and credit access?

Mr. CHAKRAVORTI. What I think needs to be done in the capital space is you need to have a belts-and-suspenders approach. So we have multiple ways to regulate capital. One is risk-based, one is leverage, one is stress testing, and the other that hasn't been talked about right now is something called the TLAC requirement, that you have to hold debt that would convert once you are a going certain.

So I think once you combine all of these different regulations, and you need them because they do different things, as we have discussed, just a straight-out leverage ratio doesn't weight risk appropriately, but at the same time, risk-based regulation may not get it right. We discussed that stress testing actually has the benefit of having scenarios to look at it. So to try to calibrate that number, one has to look at the totality of those regulations.

Mr. PITTENGER. Thank you.

Dr. Michel, please just expand on your perspective of how Dodd-Frank has exacerbated "too-big-to-fail."

Mr. MICHEL. How has it exacerbated "too-big-to-fail?"

Mr. PITTENGER. Yes.

Mr. MICHEL. In the first place, if you want to end "too-big-to-fail," you don't have regulators identify the banks that we say we can't live without. So if you are identifying systemically important financial institutions, systemically important financial market utili-

ties, and saying that, look, the regulators believe these guys go down and they kill the economy, you have a really tough case to make for having ended "too-big-to-fail."

If you go beyond that and you look at Title II, Title II takes the parent holding company and basically wipes it out in order to keep the subsidiaries going. So everybody knows that going in.

And the bridge company is exempt from taxes, and the bridge company can only get funding really and truly from the Federal Reserve or the FDIC. If you look at it and say, well, they are prohibited from getting these funds, that is not quite right, I don't believe. The fact is that they can only go into the Title II proceeding after the Fed and the FDIC certify that there is no private funding available for the bridge company.

So I think Title I and Title II, easy. Title VIII is a sort of newfangled entity, the financial market utility, that comes under this umbrella as well. So those three titles alone pretty much seal the deal in terms of perpetuating "too-big-to-fail."

Mr. PITTENGER. Yes, sir. Thank you.

I yield back.

Mr. NEUGEBAUER [presiding]. I thank the gentleman.

And now. the Chair recognizes himself for 5 minutes.

On Monday, as many of you know, the Federal Reserve finalized its G-SIB capital surcharge rule, which would be applied to eight of the United States G-SIB bank holding companies. And the final rule imposed a surcharge that almost doubled the surcharge proposed by the Basel Committee in some cases. Thus, U.S. financial institutions will be required to hold significantly more capital than their foreign competitors.

Vice Chairman Stanley Fischer raised that question, the global financial competitiveness, at the Board's opening meeting. His concerns were kind of summarily dismissed by the Federal Reserve staff.

This is not the first time, and likely not the last time, that we are seeing the United States go beyond the Basel standards. We have seen the Federal Reserve do this with the supplementary leverage ratio. We are likely to see it do the same with the net stable funding ratio and TLAC proposal.

Dr. Chakravorti, do you worry about the U.S. competitiveness if we keep making the U.S. banks play by a different set of rules than the international banking community?

Mr. CHAKRAVORTI. Thank you for the question, Mr. Chairman.

The way I view it is we have done a lot of work on the G-SIB when the G-SIB proposal was announced, and what we found is that there have been various improvements in the systemic risk of these banks because of various regulations, and that really wasn't incorporated.

So the idea that the Federal Reserve would increase over and above the Basel requirement and come up with its own metric, which is called Method 2, certainly leaves the banks at a disadvantage to foreign competition. And it is something that it wasn't really well justified in doing so, especially when they agreed upon the standard coming out of Basel.

Mr. NEUGEBAUER. Dr. Michel, do you have anything to add to that?

Mr. MICHEL. No. I don't have anything to add to that. I think that is accurate. I don't have anything additional to say there.

Mr. NEUGEBAUER. One of the issues that I have heard this week from one of the larger financial institutions is that there is a disincentive now for them to hold certain kinds of assets because the more assets that they hold, the more capital they have, maybe the more liquidity, and that certain kinds of assets just don't generate that same kind of return to justify having to go out and bring in additional capital or to bring in additional liquidity, which in many cases may not earn a return to justify holding those kind of assets.

How do we address this displacement and this understanding that some of these assets are actually going to global banks outside the United States because they are able to deal with those assets in a different way regulatorily than these domestic banks?

Mr. CHAKRAVORTI. Sir, you are absolutely correct in saying that when you regulate you are going to have some market impacts on certain products. And those products, sometimes they are an intended effect, and sometimes they are an unintended effect. But what is clear is that if the regulated banking sector does not provide it, there is a risk that that product will be provided outside the banking system, whether it be in the United States or outside the United States.

When that occurs, it is not clear that where it is going to is as strongly regulated as the banking sector. So in fact you might actually increase systemic risk, something that you don't really want to do, by proposing the regulation if your intent is to reduce it overall in the financial system.

Mr. NEUGEBAUER. Dr. Parsons, I wasn't here, but I think Mr. Duffy asked all of the panel if they thought that Dodd-Frank had ended "too-big-to-fail." And I believe you said that you thought it had ended "too-big-to-fail." Is that correct?

Mr. PARSONS. I think it has reduced "too-big-to-fail" significantly. I think having a healthier financial market with better capital requirements that reduce the taxpayer backstop is a good thing. And if another society wants to lower their capital requirements and have their taxpayers subsidize their banking business, I don't think it is good for the United States to get into competition in putting the taxpayers' money behind the banks.

I also think having a healthy financial system here is competitively good for the United States. And so I don't think getting into a competition to keep our capital requirements low is going to help business here. We have always had extremely good financial markets that have been attracted capital to the United States.

Mr. NEUGEBAUER. The reason I ask that question is because I believe in April of 2013 you wrote an article with your colleague Simon Johnson in which you basically dismissed the arguments that Dodd-Frank had ended "too-big-to-fail." So have you changed your position now? I am a little confused by that.

Mr. PARSONS. No. First of all, I was very careful to say we have reduced it because there are a lot of problems that remain. The fact that we haven't taken care of the living wills, the fact that we still don't understand the orderly liquidation authority, we haven't fully implemented it, those are very critical problems that we need to resolve.

Also, we just on Monday had these surcharges placed on the G-SIBs. So those surcharges will make those banks reevaluate activities which are activities potentially that the taxpayer has to backstop.

And so we are watching a process, and that process is still not complete. But we have made great progress.

Mr. NEUGEBAUER. Okay. My time has expired.

I now recognize the gentleman from Kentucky, Mr. Barr, for 5 minutes.

Mr. BARR. Thank you, Mr. Chairman.

And thanks to our witnesses here today.

Dr. Michel, a quick question for you. We have heard a lot about the causes of the financial crisis. And one of those narratives is that deregulation and unrestrained free markets were the cause of the financial crisis.

Can you elaborate a little bit more on your testimony about the fact that there was plenty of regulation, in fact quite a bit more regulation was added to the Federal Register in the run-up to the financial crisis, but that it was dumb regulation? And in particular, can you amplify your testimony about the risk-weighting approach of the Basel capital standards and how that may have contributed to the financial crisis?

Mr. MICHEL. The Basel portion—and so, yes, I agree. And I have written quite a bit about this and listed a lot of other regulations that were supposedly deregulations that were just different kinds of regulations.

The Basel portion, though, we have developed a system that literally weights certain things heavier than others. So there is a built-in incentive in that system to buy more assets that have lower risk weights—or, I'm sorry, to hold more assets that have lower risk weights.

And if you go back to the history of that, in the 1950s the Federal Reserve started the risk-bucket approach. It was picked up and used in the 1970s by the Basel Committee. The whole idea was to better match risk and capital to lower capital. That is the whole idea.

Mr. BARR. Specifically, can you speak to the risk weighting of GSE mortgage-backed securities?

Mr. MICHEL. Sure. My numbers might be off. I know they are in my written testimony. I think you could lower your capital by 60 percent if you held the GSE mortgage-backed security instead of the actual mortgage.

Mr. BARR. So Fannie Mae and Freddie Mac led to the largest taxpayer bailout in American history primarily because of bad government policies that induced the origination of subprime mortgages, and yet the regulators got it wrong in terms of the risk weighting of those assets. Is that correct?

Mr. MICHEL. Yes, that is correct. They also got the private label mortgage security weight wrong.

Mr. BARR. And Dodd-Frank, although it doesn't specifically require adoption of Basel III, it does, as you said, in Sections 165 and 171 direct Federal banking agencies to implement Basel III proposals. Do the Basel III proposals in any way make adjustments

that signal that they have learned from their mistakes in the run-up to the financial crisis?

Mr. MICHEL. The GSE mortgage-backed security risk weight is the same. The private label has been restructured completely. There is not really one number. That is kind of a mess.

Mr. BARR. Let me just move on really quickly. You have talked about how Dodd-Frank, obviously through the designation process designating systematically important financial institutions, enshrines "too-big-to-fail," but what about exacerbating "too-big-to-fail?" And what I mean there in particular is all of the additional capital requirements, the regulatory compliance costs imposed on small community banks—we know that since 2010, we have lost 1,200 banks. There have been only four de novo charters. There has been a dramatic consolidation of banking.

Dr. Parsons thinks that Dodd-Frank has reduced the problem of "too-big-to-fail," but how have we done that if we have fewer banks and there is concentration of risk in larger, more systemic institutions now, much more so than before 2008?

Mr. MICHEL. We have a long-term trend that has been exacerbated by regulation in general. Dodd-Frank has certainly made that worse. And we have literally concentrated the banks more. So it is, again, pretty hard to argue that we have reduced that problem in that respect. Yes, I would agree there.

Mr. BARR. Let me just go to any one of you on the opaque nature of stress tests, and specifically for regional banks over $50 billion. I am thinking of small regional banks whose management has expressed to me and others that the CCAR requirements are very opaque, that there is not really any predictability in terms of knowing whether or not they are going to pass or fail these stress tests, and specifically this Comprehensive Capital Analysis and Review.

What they have told me is that it has dramatically increased their compliance costs and that the increase in compliance cost means less capital deployed in their community.

Dr. Calomiris, could you speak to that? And, in fact, I would want to reference back to your testimony where you described the stress testing process as "Kafkaesque Kabuki" drama. Can you elaborate on that a little bit?

Mr. CALOMIRIS. Thanks for asking. So Kafkaesque because what Kafka, of course, made fun of was governments that would sort of make up the rules after they saw what you did. And that is exactly what we do with the stress tests. You don't have to reveal what the rules are. You are going to be held accountable.

And even if the Fed's own secret quantitative measure of your risk shows that you don't have a problem, they still reserve the right based on qualitative, whatever that means, beliefs to make you fail. That is Kafka incarnate.

Kabuki, because it is a particular sort of drama that is very staged. So it is both a staged drama and a Kafkaesque drama, so hence "Kafkaesque Kabuki."

For small banks, of course, they are just not set up. As you pointed out, they can't deal with the overhead of actually doing this on a credible basis. This is a fairly complicated thing to do.

But my view is that stress tests, if the Fed is held accountable for a framework, can be extremely useful for large banks. But we

have to make it based on real data, not based on what the Fed is doing. But looking at cash flows and making banks think about themselves, line of business by line of business, modeling their cash flows, I can tell you, could be done a lot better.

Mr. BARR. Thank you for your testimony.

Mr. NEUGEBAUER. The time of the gentleman has expired.

The gentleman from Pennsylvania, Mr. Rothfus, is recognized for 5 minutes.

Mr. ROTHFUS. Thank you, Mr. Chairman.

Dr. Calomiris, I want to follow up on a couple of those points. The capital and liquidity standards developed by the Basel Committee are intended for large internationally active banking organizations. U.S. regulators have defined that concept as any banking organization with: (A) $250 billion or more in total assets; or (B) more than $10 billion in on-balance-sheet foreign exposure.

Do you believe the threshold set by regulators based on assets or foreign exposure is appropriate for capturing those large and internationally active banking organizations the Basel standards were intended and designed for?

Mr. CALOMIRIS. Quick answer, no. And more generally, I don't think there is any intellectual basis, either in logic or fact, that stands behind these liquidity standards as they are constructed. They were simply arbitrarily constructed. There is no theory and there is no fact supporting them, much less the cutoff, which I think runs against the whole history of how we think about cash regulations.

Remember back in U.S. history, we required money center banks in New York to maintain 25 percent in cash, but then we required country banks to not have to maintain quite so much in cash because banks that are at the center of the system have a more important systemic liquidity risk. So I don't think that this—I think it is almost for sure.

Mr. ROTHFUS. Well, yes, because there is an issue that these regulations bleed over into areas that they maybe weren't intended to. For example, how could regulators adapt these thresholds to ensure that regional banking organizations focused on predominantly domestic banking activities and that are not internationally active are not subject to capital liquidity requirements designed for more complex global banking organizations?

Mr. CALOMIRIS. Yes, I agree with you that it is a misfit. But I do want to caution that small banks also have systemic risk. It is called real estate. So it is a different kind of systemic risk.

But remember, we had banking crises in the 1980s. What were they? Ag banks, commercial real estate problems, primarily in the east, and mortgage crisis, and also oil and gas and also some other things.

But the point is, all of these things were done by small banks. Small banks can be a source of systemic risk too. You don't have to be big. If you all fail at the same time, that is also a risk.

Mr. ROTHFUS. Well, if you all fail. But, for example, one small bank is not going to bring down the entire U.S. system.

Mr. CALOMIRIS. But if the small banks as a whole, and this isn't—

Mr. ROTHFUS. As a whole. But, again, I think we have had a conversation with this committee before about whether it is going to be one bank or an entire group of them.

But I want to go to Dr. Michel. In explaining the problems with a system in which regulators determine capital adequacy by risk weighting the assets in banks' portfolios, noted banking analyst Richard Bove wrote this:

"Outwardly, risk weighting would appear to make sense. In practice, it causes funds to be directed to whatever sectors of the economy the government favors and away from sectors that the government does not like. It results in differing interest rates based upon the amount of capital required. The power to make these crucial decisions is given to the banking regulators who do so in private. Thus, one of the most important factors in moving funds through the economy is done behind closed doors by a small number of nonelected officials."

Dr. Michel, do you share Mr. Bove's concern that Basel's risk-based capital system is especially a license for regulators to engage in credit allocation, some might call it picking winners and losers, and to manage the economy? Is this really a role that we want regulators playing?

Mr. MICHEL. I think that is a concern, and I don't think that it is a role that a regulator should be playing. And if you go a little bit deeper into the details, the Basel rules have risk weights for individual bank loans. And the largest banks, they actually get to—they are literally allowed to work with the regulators to come up with that, which just is a license for regulatory capture. The entire system is a mess.

Mr. ROTHFUS. Dr. Michel, what have been the consequences for economic growth and the vitality of our financial system of the decision by the authors of Dodd-Frank to really essentially double down on regulatory complexity, as we see was in place before and after Dodd-Frank?

Mr. MICHEL. Just having to divert so many resources to compliance is a major problem. If you talk to smaller bankers in particular, even smaller regional banks, they have been getting hit with these things for years.

The Basel requirements were never intended for anybody other than internationally active banks. That was the original intention. And U.S. regulators decided, no, we are going to put them on everybody.

It doesn't make any sense to have smaller community banks going with these standards. And I would argue that it doesn't make any sense to have them anyway. But if you are going to have them on, you shouldn't have them on the smallest banks and probably not on a lot of the regional banks.

Mr. ROTHFUS. Mr. Chairman, I yield back.

Mr. NEUGEBAUER. I thank the gentleman.

Now the gentleman from Indiana, Mr. Messer, is recognized for 5 minutes.

Mr. MESSER. I thank the panel. I appreciate the lengthy conversation today about the Byzantine nature of the capital and liquidity standards under Basel. I would like to start by focusing my testimony towards Mr. Chakravorti and Mr. Calomiris.

As I think you are probably aware, Federal banking regulators excluded all American municipal bonds from being treated as high-quality liquid assets under the LCR rule. This creates a remarkable situation where certain German subsovereign debt qualifies as high-quality liquid assets when American investment grade municipal bonds do not.

This makes no sense to me. These investments are some of the safest investments in the world. And, of course, by not qualifying these assets in that way, it could raise borrowing costs for American local municipalities as they borrow.

I have, looking at that, coauthored bipartisan legislation with Congresswoman Maloney that would essentially direct the FDIC, the Federal Reserve, and the OCC to classify investment grade municipal securities as level 2A high-quality liquid assets.

And I would just like your feedback on that. As several of you have testified, the situation is far too complex as it is, but it certainly makes no sense to me to be penalizing investment grade American municipal bonds.

Mr. CHAKRAVORTI. I support the view that high-quality liquid assets, given its risk profile and liquidity profile, should be as broad as possible. And if these munis do satisfy that requirement, I am fully supportive of them being in the 2A category.

Mr. MESSER. Mr. Calomiris?

Mr. CALOMIRIS. We have a little difference of opinion here. So I don't think we want to play the game of the in and out. And the way we do that is we focus on cash at the Fed bearing interest, basically banks holding Treasury bills, and that is what cash is, and we should just focus on a cash requirement.

But what your point really illustrates is that the Basel Committee is the political equilibrium of people sitting at a table. They push for including covered bonds as a cash asset. Covered bonds are, from a systemic standpoint, a terrible thing to include. They cause what we call asset stripping.

So Basel is a political G7 dining room table where deals are made and tradeoffs are made, and we shouldn't have to deal with and have to accept those definitions of what our liquidity requirement should be.

Mr. MESSER. Would anyone else like to chime in?

Mr. MICHEL. I would agree with Charlie. I wish I had come up with the dining room table analogy. I like that.

It makes no sense. It is purely political. It is almost wholly arbitrary, except for the fact that it is political, and it is a terrible system.

Mr. MESSER. Yes. And there are a host of other things that ought to be included as well.

I yield back the balance of my time. Thank you.

Mr. NEUGEBAUER. Thank you.

I now recognize the gentleman from California, Mr. Royce, for 5 minutes.

Mr. ROYCE. Thank you, Mr. Chairman.

I think the need for cross-border resolution of compromised financial institutions was made pretty painfully apparent during the 2008 global financial crisis. Rightfully, cross-border resolution is

today at the forefront of the international regulatory reform agenda.

I thank these witnesses for being with us.

During a recent update on the FDIC's efforts to create a framework for the resolution of SIFIs and G-SIBs, Chairman Martin Gruenberg said that there has been no greater or more important regulatory challenge in the aftermath of the financial crisis than developing the capability for the orderly failure of a systemically important financial institution.

Now, I agree with him that this is an issue of paramount importance. However, I question the comment in describing the work to date in solving this cross-border resolution conundrum as: The progress has been impressive.

I wanted to ask Dr. Chakravorti, do you share Chairman Gruenberg's assessment on the progress made on ending "too-big-to-fail" around the world and eliminating taxpayer liability in the case of a financial downturn or do you side with the IMF, which believes that there remains considerable additional work, in their words, to be done to establish an effective regime for cross-border resolution?

Mr. CHAKRAVORTI. That is a tough tradeoff, Mr. Congressman, to choose between the IMF and the FDIC. What I would like to say is that it is a very difficult issue. I have visited the FSB and Basel. It is a complex issue.

I know that much of the cross-border that we should worry about is in a few countries. So I think there is great movement in the direction to get a cross-border agreement with some of these countries, but it is very difficult. And I think we have to start somewhere, and we are certainly going in the right direction.

Mr. ROYCE. Then, let me ask Dr. Michel, what steps do policymakers around the globe need to take to actually ensure a method of cross-border resolution exists, one that does not place American companies at a competitive disadvantage while still preventing future taxpayer bailouts?

Mr. MICHEL. On the specific details of the cross-border issue, I would have to defer. I am not comfortable with the specific details there. But in general, I think what we need to do is worry about making the American system as competitive as possible. And bankruptcy law change would be much better than the Title II that we got in Dodd-Frank.

Mr. ROYCE. Let's open it up to the rest of the panel then very quickly. But we have had some time to think about this. Ever since 2008, it should have been on our mind.

Mr. CALOMIRIS. Let me just talk about that. I agree with you. In fact, if you look at what the problem was in terms of cross-border with the failure of Lehman, it was which regulator is in charge of which assets? That was the major problem. That was the major disruption and confusion. And I think that is something that we are really moving to solve, and I think it can be solved. That is different from orderly liquidation, which I think is a pipe dream.

So my own view is, in terms of Realpolitik, the only way we are going to solve this problem is with some kind of ringfencing where there is clear allocation of authority over which assets and which liabilities will be adjudicated and controlled by which regulatory

entities. And we can't have a completely fluid international balance sheet. It is simply not pragmatic.

So my view is international financial institutions can have operations that are international, but they have to have legal entities that are well-defined within national borders.

Mr. ROYCE. Thank you.

I am going to yield back, Mr. Chairman, because I see Mr. Schweikert is pensively waiting, and I know time is short.

Mr. NEUGEBAUER. I thank the gentleman.

And now the gentleman from Arizona, Mr. Schweikert, is recognized for 5 minutes.

Mr. SCHWEIKERT. Thank you, Mr. Chairman.

To my friend from California, was that "pensive" or just too much caffeine?

This actually has been an interesting conversation, and you always run into the situation when you are last, that a number of your questions have already been answered. So could we do a quick lightning round, because there are a handful of things I would love to get my head around?

Dr. Michel, in your opening statement you talked about if you would also charter certain institutions as partnerships and then the loss piece moves to the partners. Can you give me like 20, 30 seconds on that?

Mr. MICHEL. Sure. Before the Depression, what we had was basically sort of a double liability system, and it wasn't a corporate limited liability. It was you are responsible for your losses as well as an amount up to the amount that you had put in. During the 1930s and RTC and a lot of details, we basically killed that. And I think for the last—I think the last investment banking firm to get rid of that entity was Bear. I could be wrong, but it was one of them.

Mr. SCHWEIKERT. Would that be another way of also saying, okay, here is equity capital, but also the liability within that equity capital?

Mr. MICHEL. Yes.

Mr. SCHWEIKERT. Okay. Simple enough?

Mr. MICHEL. I believe so, yes. And I know that a lot of those companies will not want to do that right off, but if you look at the amount of regulation that we force on them and you take some of it away, some may be willing to go for the tradeoff.

Mr. SCHWEIKERT. We are going to come back to that opportunity and how do you incentivize either greater capital or either greater risk participation.

And I always mispronounce, is it Dr.—

Mr. CALOMIRIS. "Calomiris."

Mr. SCHWEIKERT. —"Calomiris."

Okay. Real estate concentration, particularly for those of us from the Southwest, we have seen our boom-and-bust cycles and our real estate often taking down our S&Ls back in the late 1980s, what it has done to our banks.

The ability for banking institutions to syndicate risk on their real estate book, saying we have this many real estate loans, is there a way to hedge it, sell it off to private equity, or even in today's world where I am watching the new crowdsourcing, the lending clubs of the world in the real estate market, but also taking that

same model and allowing those same banking institutions that act as aggregators where that real estate debt ultimately is not sitting on their books, they are just acting as the collection, management, bookkeeping, and the risk is actually, shall we say, cascaded with the series of individual institution, private equity investors. Is that a model of breaking up that risk concentration?

Mr. CALOMIRIS. Any model that creates better diversification and better maturity matching of the financing of real estate is going to be a big improvement. And this isn't farfetched. This is what we are already seeing.

Insurance companies do a lot of small local commercial real estate financing. The farm credit system now has very high capital requirements, and its mutual structure shares some of that risk. I am not a big fan of the farm credit system, but my point is that insurance companies, real estate investment trusts, and the farm credit system are all very different kinds of financing structures from traditional banks.

And I can't resist just adding one more thing: You all know the story of, "It's a Wonderful Life." That was a building and loan. That movie is inaccurate. Building and loans couldn't have runs, because they weren't funded by short-term debt. That movie is just wrong.

Mr. SCHWEIKERT. Are you telling me Hollywood has lied to me again?

Dr. Parsons, if I were sort of rebuilding the whole concept around Dodd-Frank, and saying, look, in a modern world, with modern technology, and modern information, how do I actually, at least from my view of the world—I want a broad financial system. We keep referring to it as the banking system, and then those who want to sound more sinister, the shadow banking system.

But ultimately, how do I create a world here where my community bank may be where I go for that loan, but I also may go on the Internet, I may go to a fraternal organization. Wouldn't that breaking up of risk concentration ultimately make us much more robust when the markets are—when we go through a rough cycle?

Mr. PARSONS. I think that is a great idea. I think we got ourselves into a situation leading into the crisis where we had these gigantic universal banks where we were pushing into the portfolio every kind of activity that really wasn't even related, but we were also then finding ourselves with certain utilities, like the payment system and the like, hostage to losses on various portfolios. What you proposed is exactly a better financial system.

Mr. SCHWEIKERT. So to that same concept, how do I turn to those same financial institutions and say: You should be able to participate in financial markets, but in many different ways. My particular fixation on the crowdsourcing of lending, because it minimizes the cascade effect if the loan goes back, because it is not either the bank or therefore the guarantors and the taxpayers in the chain of liability. There has to be a solution here that is much more dynamic for our markets.

Mr. PARSONS. I think the regulators are trying to do that kind of thing. When you look at the—

Mr. SCHWEIKERT. There, I disagree with you.

Mr. PARSONS. —and you look at the G-SIB charge, they are attempting to identify the risk of the specific activity.

Mr. SCHWEIKERT. Last comment: The regulators aren't doing that. As a matter of fact, the regulators in many ways are crushing the innovation right now.

With that, I yield back.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Maine, Mr. Poliquin.

Mr. POLIQUIN. Thank you, Mr. Chairman.

And thank you, gentlemen, for being here today. I appreciate it.

I am sure everyone agrees that our financial services industry is the envy of the world. The reason why we have such a strong economy, although we do have problems now, but over a long period of time is because our financial services industry provides the cash, the capital, the money, so businesses can borrow and expand and hire more workers and our families can borrow more money to buy a home or a new car.

Now, I am very concerned, like a lot of folks in this room, that the Dodd-Frank set of regulations, parts of them, are really smothering our financial system and therefore impacting our economy and that is why we have had such anemic growth over the last 6 years of this recovery. And one of the parts of Dodd-Frank that I am concerned about, Mr. Messer spoke about a short time ago, dealing with our high-quality liquid assets issue.

Now, when I was the State treasurer up in Maine for a period of time, we did lots of work with the municipal bond market, and we accessed the market to repave Route 1, for example, that brings all of our tourists up to Maine so they can have nice lobsters and good vacations. This is very important to our State. Our department also helped a lot of our small towns, like Greenville or Jackman or Machias, if they needed to build a new sewage treatment plant. And so having the access to cheap credit for our States, our counties, our cities, and our towns is critically important going forward.

If you look at our municipal bond market today, it is very safe, it is very liquid, it is transparent, it has been around for about 80 years, and there is about $4 trillion today outstanding in our municipal bond market. A couple of years ago, 2013, there was about $325 billion one year that was issued. There are 1,600 broker-dealers that affect transactions on both sides of the trade, and every 15 minutes the results of transactions are posted on the electronic platform.

So in addition to that, moms and dads and grandparents who are buying securities, who are saving for their retirement, hundreds of thousands of them across our country participate in this market, along with mutual funds, insurance companies, and they all provide, again, the cash, the cheap credit to our towns so they can grow, so we can build a new playground for the kids down the street, or you can make sure you have a new library if you need one.

So this is really important. And I am very concerned that now the Fed and the FDIC are looking at this whole asset class and

saying, for some reason, that these very safe liquid securities should not be included in the liquidity coverage ratio.

So I would like to ask you, Dr. Chakravorti, if you don't mind commenting on this, tell me what your thoughts are. Am I missing anything here? Because it doesn't seem to be fair or right to me that we exclude this whole type of asset class from the liquidity coverage ratio for banks, because if we do, it is going to have a big impact on moms and dads who are struggling through this recession, because they are going to have to pay higher taxes to pay for higher interest rates if we restrict this type of whole asset class from this issue we have here.

Mr. CHAKRAVORTI. As I mentioned before, I think it is very important when deciding characteristics of things that fall into the A1, A2, level 2 category of the LCR that these instruments truly be liquid and truly possess the underlying risk characteristics that you want.

Mr. POLIQUIN. And do you feel that municipal bonds, in fact, do meet those requirements?

Mr. CHAKRAVORTI. Let me just say, I haven't studied every municipal bond in the country to tell you those characteristics. I can tell you that I am sure there are some that qualify. I can't say whether they all do. I am not an expert in that area.

Mr. POLIQUIN. How about general obligation bonds? In other words, if you look at the State of Maine, for example, is that individuals and businesses who pay income tax and folks who go visit our great State and pay sales tax when they buy a lobster or can of Coke, these are all of the assets, the revenues that backstop the interest payments on our GO bonds every 6 months and the principal backed every 10 years.

Mr. CHAKRAVORTI. I understand how they are financed and things like that, but things that come to mind, and please don't take this the wrong way, are Greece, Orange County, and other sovereigns that—I am not saying Maine is in this category; I am not trying to say that.

Mr. POLIQUIN. Thank you.

Mr. CHAKRAVORTI. But what I am saying is that if there are municipal bonds that meet the characteristics of asset similar, then they should be—

Mr. POLIQUIN. I would make a case to you, Dr. Chakravorti, in my final moments if I may, Mr. Chairman, that our sovereign States here, which are required to balance their books every year, are a much safer bet than some of the debt—

Mr. CHAKRAVORTI. Absolutely. I don't—

Mr. POLIQUIN. —accrued around here in Washington. Let me tell you that.

But I thank you very much. I appreciate your comments, Dr. Chakravorti.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from Arkansas, Mr. Hill.

Mr. HILL. Thank you, Mr. Chairman.

And I thank our panel for being with us today.

I really want to get into a long, extended debate about these real estate comments I have listened to today, because I don't buy it. I have been in this business for almost 40 years now. And I think

customers and banks fully share interest rate risk in traditional commercial real estate lending, portfolio lending. And so I really want to take issue with that, but I will not dwell upon it.

Mr. Sherman talked about rating dependencies, and in my view, that is one of the more paper-oriented burdens actually coming out of Dodd-Frank, is requiring banks to do a lot of independent credit analysis and not be relying on the rating agencies. In fact, it was completely counter to the discussion I felt that you had, is that bank exams now do not allow you to simply state for the rating sheet in a bank looking at your portfolio. I think in some instances that is a good idea, and in some it is not. But it is a huge source of paper burden on small banks.

An example: In Arkansas, school bonds, which is fully, gosh, 100 percent, I would say, of the municipal exposure of commercial banks in Arkansas, are AA rated and guaranteed by the State of Arkansas, so it is the equivalent of a GO in Arkansas, and yet every one of those has to have stapled to it the Bloomberg evaluation analysis and an independent credit review, some of which is virtually impossible to do. So I really think that is an area we could reform the regulatory practice as a result of Dodd-Frank.

Also, you all talked about in the capital ratings, which are so geared to credit risk, and you didn't really mention interest rate sensitivity risk, which is also the "S" in the CAMELS rating. And it is not a one-stop shop. When we make a loan or buy a bond, we are taking credit risk, but we are also accounting for and graded on interest rate sensitivity risk. And I didn't hear any discussion of that today. Some of you acted as if it didn't go into the calculus of that. I want to give you a chance to talk about the balance between those two.

Dr. Michel, would you like to start?

Mr. MICHEL. As far as I know, Basel III does not include any sort of weight for interest rate risk.

Mr. HILL. No, but your examine practice does. Every bank has an interest rate sensitivity component.

Mr. MICHEL. I misunderstood.

Mr. HILL. Yes, that is my point. You are all beating up on Basel III, but we are not taking into account that we have another binder on the shelf in the boardroom that is all about interest rate sensitivity, and the two work together. So really comment on that if you would, please. Meaning, you have Basel weight, sure, but it is not the only thing a bank takes into consideration.

Mr. MICHEL. Well, no. There are certainly going to be things that they have missed. Aside from the fact that they are arbitrary, and aside from the fact that they are going to get certain things wrong in what they have accounted for, there would be some things that they would not account for. The CAMELS ratings is actually much better in terms of just accounting for sort of a comprehensive look at the bank.

Mr. HILL. Yes.

Mr. CALOMIRIS. I think that after Basel II and going on to Basel III, large banks do have to, as part of their internal risk-based modeling, take account of their interest rate exposure—

Mr. HILL. All banks, not large banks.

Mr. CALOMIRIS. But I am saying under Basel, this was reformed.

Whether that is done accurately is a separate question. And I think that there is a lot of reason to believe that our models of doing that which are being used might not be accurate.

Mr. HILL. Right. We can't eliminate risk in the banking business. That is the business that we are in. So I don't think we can regulate our way out of that. And I think that is one of the big flaws in the Dodd-Frank Act.

How would you take into a CAMELS rating, even though they are confidential, in this idea of a market-based capital standard and market-based risk, to Mr. Mulvaney's point? Any suggestions or ideas there?

Mr. CALOMIRIS. My view is that there are several different pieces that you could use. I know that time is short. My CoCos suggestion goes right to the point.

I would also point out that there are other simple things. Suppose that you said that the risk of a loan is going to be captured by its relative interest rate spread? There is a lot of evidence that is true, that nonperforming loans are closely linked to interest rate spreads. You could use that market information to measure loan risk.

Now, that is not perfect, but if you had used the highest interest rate in a mortgage as a measure of its risk, you would have budgeted a lot more capital for subprime mortgages than we did.

Mr. HILL. I would like to talk about that another day as well.

Thank you, Mr. Chairman.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair asks unanimous consent that the gentleman of Georgia be granted an additional minute. Without objection, the gentleman from Georgia is recognized.

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

Very quickly, I think we are overlooking, as I said, an unintended consequence of this leverage capital rule. And I hope you will have time to respond to me.

And here is my concern. When you require capital be held against collateral for which banks are prohibited from leveraging their own benefit, this will increase the cost significantly of end users. And nobody has talked about that.

I am very much concerned about this. This will affect all of our end users, people who had no issue with this meltdown. I am talking about our farmers, our agriculture businesses, our manufacturers, our energy producers.

And my fear is that banks will be less likely to take on new clients for a derivative clearing, and as a result market participants will have fewer choices and will be less likely to use derivatives from hedging their own risk for management purposes.

And as a result of mandatory clearing obligations for some derivatives, some market participants, like what I mentioned are innocent end users and agribusinesses, will not have any option available to them to hedge their underlying risk and will find this unwarranted capital treatment grounds against our banks a reason for discontinuing their customer-facing clearing businesses. This is an underlying but becoming more obvious unintended consequence.

Mr. Calomiris, would you respond? I think you mentioned it a little bit.

Mr. CALOMIRIS. I think you are right, that we have to strike a balance, and we have to recognize that there are costs associated from imposing capital requirements, absolutely no question about it.

At the same time, I just want to reiterate that if you aren't gearing your capital requirements to making your banking system safe, a collapsed banking system has much worse consequences for those end users.

And let me point out, the United States has had since our origins, 17 major banking crises. We are one of the least stable banking systems in the world. And part of that reflects the fact that we have sometimes bent too far in the direction of short term, wanting to help borrowers politically, and at the expense of our stability.

When we look at Canada to the north, they have never had a banking crisis. That is a very interesting thing to note. And they feel pretty well served by their banks, and I think they like their stability.

Mr. SCOTT. Yes.

Just, Mr. Chairman, I want to end with this, that hopefully we can pay a little closer attention to this, because we don't want to inadvertently affect very dramatically our end users, our manufacturers, and our agribusinesses and small businesses because of Basel III.

Thank you, Mr. Chairman.

Chairman HENSARLING. The time of the gentleman has expired.

There are no other Members in the queue, thus, I would like to thank all of our witnesses for their patience and their testimony today.

The Chair notes that some Members may have additional questions for this panel, which they may wish to submit in writing. Without objection, the hearing record will remain open for 5 legislative days for Members to submit written questions to these witnesses and to place their responses in the record. Also, without objection, Members will have 5 legislative days to submit extraneous materials to the Chair for inclusion in the record.

This hearing stands adjourned.

[Whereupon, at 12:32 p.m., the hearing was adjourned.]

A P P E N D I X

July 23, 2015

What's Wrong with Prudential Bank Regulation and How to Fix It

By

Charles W. Calomiris

Testimony Before the
U.S. House Committee on Financial Services,

July 23, 2015

Chairman Hensarling, Ranking Member Waters, Members of the Financial Services Committee, it is a pleasure and an honor to be here today to share my thoughts with you about how to improve prudential banking regulation to address the too-big-to-fail problem, and more generally, to avoid instability and financial burdens on taxpayers that result from private risk taking at public expense. First, I identify what I take to be our desired destination: what should be our objectives? I then explain why the current mix of prudential regulations of banks developed over the past three decades is not designed well enough to get us there. The pillars of that system include Basel risk-based capital ratio requirements, leverage limits, liquidity regulations, stress tests, and "orderly resolution." As I will show, it is not just the particulars of these standards that are inadequate; they are misconceived and poorly designed. I propose regulatory reforms that would not only credibly limit private risk taking at public expense, but do so in a way that would improve the efficiency of our banking system. It is possible to credibly and substantially reduce (if not eliminate) bank bailouts, while also improving bank performance, and reducing the risks banks face from regulatory uncertainty.

What Destination?

What should be our destination? We want a regulatory system that credibly requires banks to risk their stockholders' investments, not taxpayers' wealth. And we want to avoid permitting losses to bank stockholders to cripple banks' abilities to make loans to viable borrowers in the wake of severe bank losses. These goals point to common regulatory objectives: requiring banks to maintain adequate amounts of equity capital and cash assets relative to the risks they undertake, and ensuring that the risks banks' bear are properly diversified across sectors so that a normal recessionary shock coming from one sector (e.g., real estate) does not lead to an economy-wide contraction of credit. Of course, avoiding bailouts and credit crunches isn't everything: we need to build a competitive banking system that is able to adapt to changing market conditions to provide a broad range of services to its customers at low cost. U.S. banks are still struggling to recover their competitive capabilities, partly owing to the new regulatory burdens that they are bearing in the wake of the Dodd-Frank Act of 2010.

There is great opportunity for improvement in regulation to meet these objectives of stability and efficiency. Our regulatory environment has not credibly ensured that banks will avoid bailouts and credit crunches, although we have imposed huge costs of regulatory compliance on banks. In particular, Title II of Dodd-Frank is supposed to ensure orderly liquidation of TBTF banks, but I see it as unlikely to deliver that result. It is more likely to institutionalize bailouts by establishing procedures under which they will occur, financed by "fees" that politicians like to pretend are not taxes. The new "single point of entry" approach, and the use of living wills, may make for good sound bites, but are not credible means for

avoiding bailouts. When a large bank fails, the potential disruptions and risks imagined by regulators and politicians will still make bailouts the political path of least resistance.

Rather than pretend that we will have the mechanisms and political will to liquidate TBTF institutions, we should focus our efforts on structuring prudential regulation to prevent large banks from becoming insolvent. That means focusing on the adequacy of bank capital and cash assets. My suggestions for reforming capital and liquidity standards are designed to improve both stability and efficiency by focusing on regulatory tools that are simpler and more reliable than our current regulatory toolkit.

Some would say that the only way to solve the bailout problem is to go back to a system of small banks, which would also necessarily mean local and narrowly focused banks. I believe that approach is wrong for two reasons. First, it is not possible to operate a global universal bank that is small because a small bank cannot cover the overhead costs of providing many services across many countries. If we were to prohibit global universal banks in the U.S. that would create a problem for global non-financial enterprises, which need a broad range of services and which find that they are served best by having those services available within a single banking relationship. Prohibiting large banks in the U.S. won't stop those global non-financial companies from choosing to work with global universal banks – it will just make them choose banks not headquartered in the U.S.

Second, reducing the size of our largest banks won't end bailouts; in fact, bailouts predate the establishment of global universal banks. Continental Illinois was small by current standards when it was bailed out in the early 1980s. And many other small banks and thrifts imposed huge bailout costs through government sponsored deposit insurance in the 1980s.

Eliminating banking crises and bailouts is not everyone's primary objective. Some political leaders favor encouraging our banking system to provide directed credit to politically favored borrowers, even if that continues to require bailouts of banks and GSEs in the future. Although advocates of this approach don't explicitly connect the dots between their goals and the bailout problem, Stephen Haber and I show in our 2014 book, *Fragile By Design: The Political Foundations of Banking Crises and Scarce Credit*, that bailouts of banks and GSEs were a direct consequence of political bargains to subsidize risky real estate lending. Government policies relating to merger approvals, directed credits to low-income borrowers, and GSE mandates were coordinated purposefully to favor risky real estate lending and this was an important contributor to the banking system's, and GSEs', excesses in risky real estate finance leading up to the recent crisis. We explicitly chose as a country to tolerate an obviously

excessive exposure to real estate risk through lax prudential regulations of banks and GSEs in exchange for their making politically favored loans.

Large exposures to real estate risk by banks produce the worst systemic risks for the financial system because real estate risks are closely linked to the business cycle (hence highly correlated with one another), and because real estate investments are not easy to liquidate when they go sour. Although the United States is the most extreme case of this problem, we are not alone; a recent study by Jorda, Schularick and Taylor (2015) shows that the political impulse to subsidize real estate risk has expanded dramatically across many countries over the last several decades. If we are serious about solving the problem of systemic risk and bank bailouts, then we must also get serious about limiting the banking system's exposure to real estate risks. We cannot solve the problem of bank bailouts unless we do so.

What's Wrong with the Current Prudential Regulatory System?

Since the 2007-2009 banking crisis substantial progress has been made in strengthening the prudential regulatory system under which banks operate. Capital standards have been raised, and even higher capital requirements have been imposed on the largest and most systemically important financial institutions (so called SIFIs). In addition to capital requirements, SIFIs also must undergo stress tests annually which are intended to measure their resiliency under various shock scenarios. If done properly, stress tests could provide a useful check against underestimations of risk by bank models, which are almost assuredly occurring under the current approach to measuring bank asset risks as an input to the calculation of "risk-based assets." Furthermore, if done properly, stress tests could gauge the exposure of the banking system to systemic risk – especially risks related to correlated shocks such as real estate loan exposures. In addition to enhanced capital requirements and stress tests, new liquidity standards have been devised that are intended to further enhance bank resiliency and reduce banking system exposure to liquidity risk. As Florian Heider, Marie Hoerova and I (2015) show, it makes sense to require banks to hold cash, in addition to minimum capital requirements, because cash holdings can play a unique and cost-effective role in promoting bank stability.

Despite the progress in recognizing the importance of higher capital requirements, and the potential usefulness of stress tests and liquidity requirements, unfortunately, there is much room for improvement in the design of the prudential regulatory framework. The effectiveness of prudential regulations depends crucially on the details of their design. Unfortunately, capital requirements, stress tests and liquidity requirements are all deeply flawed, and these flaws are sufficient to undermine the reliability of our prudential regulatory system. At the same time, our regulatory system is imposing significant unintended costs on SIFIs and smaller banks, which are harming bank performance. That

reduced efficiency not only has adverse consequences for the costs of financial services, it threatens the resiliency of banks.

What's Wrong with Relying on Book Value Capital Requirements?

Capital requirements take the form of minimum ratios of the book value of equity (or broader measures of capital) relative to the book value of assets, or relative to the book value of risk-weighted assets (where asset risk is measured by banks' internal models or by formulaic risk categories that are applied to assets). Despite progress in requiring banks to employ asset valuations that track the economic value of tangible assets better, book equity remains a highly deficient means of measuring the true economic value of equity. This is true for two reasons. First, when banks suffer losses on tangible assets (such as loans) they typically delay recognition of those losses, and often supervisors have been complicit in permitting delayed recognition. Delayed recognition is convenient for banks, supervisors, and politicians alike because overstating capital can help banks to continue operating without curtailing lending or other risky activities. For example, recall that it wasn't until after the 1988 election was over that losses in U.S. savings and loans were recognized. The recent U.S. crisis also displayed some delayed recognition of bank losses (Huizinga and Laeven 2009). Second, and even more importantly, the book value of equity does not capture the value (or losses in value) of *intangible assets*, which reflect market perceptions of bank cash flows beyond the tangible value of net worth. As Doron Nissim and I have shown in our recent work (Calomiris and Nissim 2014), changes in intangible assets (servicing income, other fee income, the value of relationships with depositors or borrowers) have been among the primary drivers of loss in bank value since 2006, and banks are still in the process of recovering that lost value.

For both of those reasons, the book value of equity as a fraction of assets, or a fraction of risk-weighted assets, doesn't accurately measure bank health. For example, after Citigroup had become arguably insolvent by September 2008, it and many other distressed banks found themselves unable to roll over their short-term uninsured debts, prompting a systemic banking crisis. In December 2008, however, Citigroup reported an overall risk-based capital ratio as high as 11.98%. Clearly, book equity as a fraction of assets or risk-weighted assets did not measure Citigroup's health, or its ability to continue to access short-term debt markets (Calomiris and Herring 2013). And yet, the reforms envisioned under Basel III continue to focus on book equity ratios. Strangely, it seems as if the goal of Basel III capital standard reforms has been to make all financial institutions just as healthy as Citigroup was in December 2008!

I support raising equity capital ratio requirements to an even higher level than current requirements – to be specific, I suggest raising the minimum equity-to-assets ratio to 10%, and raising the

minimum equity-to-risk-weighted assets ratio to 15%. But raising capital ratio requirements even higher would not be a cost-effective solution to the problems of delayed loss recognition or the non-recognition of changes in the value of intangibles. Higher book equity requirements would not address those fundamental problems. And requiring unreasonably high equity requirements raises the cost of lending and other bank services.[1]

The right way to ensure the adequacy of bank equity capital is to measure its *economic value* rather than its book value, and then put in place reliable regulatory requirements that ensure banks will maintain an adequate amount of meaningfully measured equity capital. For publicly traded banks (which includes all SIFIs) the measure of the economic value of bank equity is its market value. Market value is the right measure to use to capture economic value not only because it has proven to be accurate over reasonable time horizons (which it has) but also because it is the measure that captures the opinions of the market place, and thus provides a uniquely valuable measure of market perceptions of banks' counterparty risks. When banks lose market confidence in the sufficiency of their equity's economic value, that results in their losing access to markets for their uninsured short-term debt. For this reason it is essential to employ market values to gauge economic value: even if the market were wrong in its measures of economic value, market opinions are the ones that matter for the risks of spreading financial crises through counterparties' unwillingness to roll over short-term debts, as we saw in September 2008.

How can we best connect regulatory equity requirements to market information about the value of bank equity? One way to do so is simply to require that banks maintain a minimum "market equity ratio," defined by using a moving average of the market value of equity relative to the market value of assets (where the market value of assets equals the face value of debt plus the market value of equity). I am not in favor of that approach because, in a recession, there would be a temptation for regulators to "forbear" and relax those regulations to spur lending and to protect banks from having to raise new capital in an unfriendly environment. We have to be realistic and recognize that the enforcement of regulations cannot be taken for granted; democracies often choose predictably and myopically to forebear from enforcing regulations at the time when we most need to enforce them.

A better approach for ensuring that banks maintain adequate economic equity ratios – one which Richard Herring and I have been advocating for some time (Calomiris and Herring 2013) – is to require, alongside a standard minimum book equity requirement, that (large) banks maintain another similar proportion of assets in contingent convertible debt (CoCos) that converts to equity on a dilutive basis

[1] Recently, Admati and Hellwig (2013) have argued that higher book equity requirements do not have social costs. As shown in Calomiris (2013) and Aiyar et al. (2014a, 2014b, 2014c, 2015), that argument is not correct as a matter of theory and it is contradicted by a large body of empirical evidence.

when the (say, 120-day) moving average of the market value of equity relative to the market value of assets falls below some threshold. For example banks could be required to maintain a 10% book equity to asset ratio, and another 10% of assets financed by CoCos that convert to equity when the moving average of the market value of equity relative to the market value of assets falls below 10%. By a "dilutive basis" I mean that CoCos would convert into equity worth more than their face value at the moment of conversion. Crucially, dilution ensures that bank managers face strong incentives to replace lost equity in a timely manner, to avoid a dilutive conversion of a massive amount of CoCos.

This CoCos requirement would give bank CEOs a strong incentive to maintain the economic value of their equity capital at a sufficiently high level. Doing so would virtually preclude bank bailouts – no bailouts can occur if banks remain distant from the insolvency point. Maintaining a high ratio of market equity to assets also would substantially reduce the risk of a systemic banking crises (well-capitalized banks don't lose access to the short-term debt market). Indeed, bank CEOs would have an incentive to maintain a significant buffer of equity value in excess of the trigger ratio (10% in the above example). That buffer would voluntarily rise with the riskiness of banks' assets, resulting in a self-enforcing risk-based equity requirement based on credible self measurement of risk, in contrast to the current system of risk measurement gaming by banks.[2]

This proposed CoCos requirement would forestall any counterproductive regulatory "forebearance" because it would be unlawful for government regulators or legislators to prevent CoCos conversion at the expense of CoCos holders.

What's Wrong with Stress Tests?

In concert with reformed capital ratios, stress tests could be a promising means of encouraging bankers to think ahead – leading them to consider prospective risks that could cause sudden losses of value, and prodding them to increase as necessary their capital buffers and improve their risk management practices. As they are currently structured, however, stress tests are a Kafkaesque Kabuki drama in which regulators punish banks for failing to meet standards that are never stated (either in advance or after the fact). This makes stress tests a source of uncertainty rather than a helpful guide against unanticipated risks. Moreover, the mystery standards currently being applied by the Fed are probably not very

[2] Under current arrangements that permit banks to measure their own risks for regulatory purposes banks have strong incentives to construct models that underestimate their risks. Calomiris (2009, 2011) discusses other policy actions that would reduce the gaming by banks of the measurement of risk, including the use of contractual interest rates for measuring loan risk and the reform of ratings provided by NRSROs that would create incentives for rating agencies not to underestimate risk. The latter proposal inspired a proposed amendment to Dodd-Frank, sponsored by Senator Barbara Boxer, which unfortunately was defeated.

meaningful. On balance, the regulatory risk from stress tests may be doing significant harm to bank values (Calomiris and Nissim 2014).

In addition to their economic costs and questionable contributions, current stress tests are also objectionable on grounds of basic adherence to the rule of law and respect for property rights. Regulators not only impose unstated quantitative standards for meeting certain stressed scenarios, they also retain the option of simply deciding that banks fail on the basis of a qualitative judgment unrelated even to their own model's criteria. It is hard to believe that the current structure of stress tests could occur in a country like the United States, which prizes the rule of law, the protection of property rights, and adherence to due process.

The penalties imposed as a consequence of failing a stress test are also objectionable. Failing a stress test does not just result in a bank's having to raise additional equity capital in the marketplace (which I believe would be the proper punishment for a bank's failing a well-designed stress test); regulators now control the dividend or repurchase decisions of SIFIs and limit their dividend payments based on the outcomes of the stress test. Of course, regulatory actions that limit dividends make sense for a capital impaired bank, but imposing such limits on a healthy bank that is in compliance with all its regulatory requirements is an inappropriate incursion into the decision making of the board of directors, and a dangerous source of damage to a bank's economic value. Banks must be able to operate their businesses flexibly and respond to market conditions in doing so. Dividend decisions are a fundamental aspect of corporate policy that should be left to the determination of the board of directors.

Finally, although the precise content of the Fed's stress testing framework remains unknown (and thus unaccountable) from what I have been able to gather I would describe it as a poor gauge of the risk of loss. A key problem is that regulators seem to suffer from "balance sheet fetishism" – scenarios' effects are measured primarily through their impact on the values of tangible assets, but as noted above, the loss of value in banks tends to often occur through lost intangibles, which the recent crisis showed are just as damaging to banks' health and their ability to continue to access markets.

Addressing these deficiencies has three parts: (1) making the stress tester (the Fed) accountable by requiring it to provide appropriate guidance about how the risk of value loss will be estimated and what the consequences will be of stress test failure, (2) using stress tests as an input into capital requirements and removing the stress tester from controlling dividend decisions of healthy banks, and (3) improving stress tests so that they are more realistically focused on the true loss of economic value, by focusing on bank cash flows, divided by line of business, using detailed bank managerial accounts (which supervisors have but currently make little use of) rather than the current practice of gauging risks using

aggregated and imprecise information from financial accounts. This can be accomplished without the Fed's having to provide its own detailed models of banks' cash flows under the various stressed scenarios, which it properly fears would encourage gaming of stress tests. To make stress tests more meaningful, the Fed should make use of banks' managerial accounting information, and present its stress tests models confidentially to a panel of financial experts and defend its conclusions. This will ensure that the guidelines issued by the Fed are both an accurate description of its models and substantively appropriate for gauging value loss of banks under stressed scenarios.

What's Wrong with Liquidity Requirements?

Liquidity requirements are another good idea that is being implemented poorly. After the recent crisis, the Fed and other countries' bank regulators came to the conclusion that it would be useful to establish liquidity standards alongside capital standards in order to mitigate bank liquidity risk. It is noteworthy that neither the Fed nor the Basel Committee has bothered to explain the economic framework that they believe justifies these new liquidity requirements. I think the reason they have avoided doing so is that the requirements are indefensible either on the basis of logic or empirical evidence. The regulations that have emerged (specifically, the two distinct liquidity requirements that are about to be imposed) are improperly designed in three fundamental respects (Calomiris, Heider and Hoerova 2015).

(1) The standards implicitly assume that liquidity risk is independent of insolvency risk, and thus structuring liquidity requirements independently of capital requirements. In fact, to my knowledge, there has never been a significant liquidity risk problem (the possibility of being unable to roll over one's debts) that did not result from an increase in insolvency risk. (2) The standards assume that liquidity regulation should focus on a complex measure of net liquidity risk (which attaches weights to different assets and liabilities and equates a dollar less of short-term debt with a dollar more of cash). That equivalence assumption has been discredited both in theory and in practice (Acharya, Almeida and Campello 2007, Calomiris 2012, Calomiris, Heider and Hoerova 2015); contrary to the Basel and Fed focus on net liquidity risk, banks that hold more cash and more uninsured debt in equal amount generally will suffer less liquidity risk than other banks. (3) The standards assume that the appropriate definition of liquid assets should be much broader than cash.

The Basel/Fed approach to liquidity regulation runs afoul of theories of liquidity requirements that emphasize the special role of bank reserves at the central bank, which results from (a) their riskless character, (b) the fact that their risk cannot be increased by the bank, and (c) the fact that they are observably held on a continuous basis (unlike book capital, which is based on questionable accounting).

Those attributes permit reserves to play a unique role in reducing insolvency and liquidity risks by maintaining depositor confidence through the effects of reserves on incentivizing proper risk management by banks. That interpretation of the special role of cash reserves is also consistent with centuries of practice in many countries, where reserves in the central bank were required in proportion to bank debts.

I am not saying that there is only one correct theory of liquidity requirements. I am saying that the liquidity requirements being imposed on banks today are theoretically incoherent and deeply inconsistent with the history of liquidity requirements, as well as with other theoretical analysis and empirical evidence.

A better and much simpler approach – which is also consistent with economic theory and with centuries of practice around the world – would be to require banks (especially SIFIs) to maintain reserves at the Fed as a proportion of their total debt (say 25%) at the central bank. To avoid turning that prudential requirement into a tax, those reserves should bear interest at something like the Fed funds rate less 10 basis points. In essence, this would require banks to hold a significant proportion of their assets in riskless debt. Given that U.S. banks historically held cash assets (cash, reserves and Treasury securities) far in excess of 25%, this requirement would be conservative. It would also have little binding effect on banks today, given the huge excess reserve holdings maintained by banks at present.

It is worth noting that, although such a requirement would not be binding on large U.S. banks today, it would have been very binding on those banks, and other banks, in the years leading up to the recent crisis. Large weekly reporting U.S. banks held 25.8% of their assets in cash plus treasuries plus agency securities in January 1994. That percentage fell to 17.2% in 2001, and to 13.5% in 2008. The insolvency and liquidity risk of the banking system would have been substantially mitigated if banks had been forced to maintain a minimum of 25% of assets in remunerative cash reserves at the Fed in the years leading up to the crisis.

Limiting Real Estate Risk

If a combination of properly designed book equity capital requirements, CoCo requirements, stress testing and reserve requirements were applied to bank SIFIs, we would effectively eliminate the risk of failure by those SIFIs, and therefore, also effectively eliminate too-big-to-fail bailouts. As I pointed out at the outset, however, that would not necessarily eliminate banking crises or costs to taxpayers from protecting banks. Small banks and Savings and Loans failed in droves during the 1980s, resulting in a disruptive and costly credit crunch and in hundreds of billions of dollars in bailout costs from deposit insurance protection.

The most important source of systemic risk for small banks – one that was visible both in the 1980s and in the 2000s – is excessive exposure to real estate lending. Real estate risks track the business cycle and thus tend to be highly correlated. Banks that suffer delinquencies on real estate loans tend to find it hard to liquidate those positions, owing both to the fact that they happen during general economic downturns, and to the fact that real estate assets are non-homogeneous and thus inherently harder to liquidate.

Depository institutions' large exposures to real estate risk are not inevitable or desirable as a matter of economics. The current high exposure of depository institutions to real estate risk does not reflect any natural link between real estate finance and deposit funding, but rather government policies that have subsidized risky real estate lending (including GSE, FHA, and FHLB credit subsidies), combined with policies that have encouraged depository institutions to play a leading role in real estate lending (such as CRA agreements to facilitate bank mergers, and providing federal deposit insurance to thrift institutions).

Prior to the 1930s, it was considered unwise to fund real estate assets with short-term depository debt.[3] Building and loan associations and insurance companies were the primary funding sources for mortgages prior to the 1930s, and they relied on long-term debt and equity to fund mortgage investments (Fleitas, Fishback and Snowden 2015). National Banks historically were prohibited from any real estate lending (Calomiris and Carlson 2015). It was generally understood that real estate and short-term debt funding did not mix well, owing to the pressures on liquidating loans that short-term debt can entail and the high costs of liquidating real estate loans. Beginning in the 1930s, the federal government changed course and began to subsidize mortgage risks funded by short-term debt.

It is well known that the recent subprime banking crisis reflected the deep exposures of large depository institutions and GSEs to mortgage-backed securities. But the concentration of risk in lending was not just a big-bank problem. As the crisis wore on, other real estate loan exposures by all banks became an additional source of strain. As of January 2008, roughly three-quarters of the loan portfolios of banks other than the large weekly reporting banks were real estate loans of one kind or another. Even the large weekly reporting banks held real estate loans on their balance sheets equal to 32.6% of their total assets. That figure includes none of their MBS exposures, on and off their balance sheets.

The obvious answer to the systemic risk created by real estate exposures is to limit the percentage of each bank's lending to real estate. If we did so, real estate financing would migrate to REITs, insurance

[3] The theoretical literature explaining why commercial banks would fund loans with short-term deposits (e.g., Calomiris and Kahn 1991) suggests that they would do so primarily for commercial and industrial loans, not mortgages or real estate development.

companies, and other sources of funds that are more natural providers of real estate finance. Banks would also become more focused on lending to small and medium-sized enterprises. The banking system likely would shrink a bit, but that should not a cause of concern from a public policy perspective.

It also makes sense to eliminate existing FHA and GSE subsidies for mortgage risk in favor of other approaches to promoting avoidable housing. Subsidizing affordable housing through mortgage risk subsidies is ineffective, destabilizing and potentially cruel, as we saw during the recent subprime debacle, in which many people favored by affordable housing policies were not able to keep their homes. A better approach, which I have been advocating for two decades, is for the federal government to provide means-tested downpayment matching for low-income first-time home buyers. This would reduce leverage, reward thrift, and make homes more affordable for the poor.

Conclusion

For SIFIs, I suggest regulatory reforms that combine a simple 10% book equity-to-assets minimum requirement (alongside a 15% book equity-to-risk-weighted assets requirement), a 10% CoCos issuance requirement with a market-informed conversion trigger (as described above), a 25% remunerative cash reserves-to-debt requirement, and a stress testing regime that is more transparent, disciplined and focused on bank cash flows. In addition, for all banks, I propose limits on the maximum proportion of real estate lending. The proposed reforms to the prudential regulation of SIFIs would work to virtually eliminate the too-big-to-fail problem. In concert with limits on real estate exposure for all depository institutions, these reforms would go a long way toward solving the broader problem of costly banking crises and government bailouts.

These proposed reforms would rely on the incentives of SIFI bankers to proactively raise capital and manage risk, and use the opinions of markets to gauge the adequacy of SIFI bank capital rather than flawed accounting rules and bank-concocted risk measures.

These reforms not only would stabilize the banking system and protect taxpayers, they would also reduce regulatory uncertainty, improve the performance of banks, and appropriately reward banks that are better able to manage their risks. By reducing reliance on discretionary supervisory decisions when gauging the capital adequacy of SIFIs, we would avoid counterproductive forebearance and bank gaming of risk measurement, which now occur. For all those reasons, I believe that my proposed reforms would result in a more stable and efficient banking system.

References

A. Admati and M. Hellwig, 2013. The Bankers' New Clothes: What's Wrong with Banking and What to Do about It. Princeton: Princeton University Press.

S. Aiyar, C.W. Calomiris, and T. Wieladek, 2015. "Bank Capital Regulation: Theory, Empirics, and Policy," IMF Economic Review, forthcoming.

S. Aiyar, C.W. Calomiris, and T. Wieladek, 2014a. "Does Macro-Prudential Regulation Leak? Evidence from a U.K. Policy Experiment," Journal of Money, Credit and Banking, 46 (1), February, 181-214.

S. Aiyar, C.W. Calomiris, and T. Wieladek, 2014b. "Identifying Channels of Credit Substitution When Bank Capital Requirements Are Varied," Economic Policy, January, 47-71.

S. Aiyar, C.W. Calomiris, J. Hooley, Y. Korniyenko, and T. Wieladek, 2014c. "The International Transmission of Bank Capital Requirements: Evidence from the UK," Journal of Financial Economics, September, 113, 368-82.

V. Acharya, H. Almeida and M. Campello, 2007. "Is Cash Negative Debt? A Hedging Perspective on Corporate Financial Policies," Journal of Financial Intermediation.

C. W. Calomiris, 2009. "A Recipe for Ratings Reform," The Economists Voice, Volume 6, issue 11.

C.W. Calomiris, 2011. "An Incentive-Robust Programme for Financial Reform," The Manchester School, Supplement, 39-72.

C.W. Calomiris, 2012. "Identifying the Right Mix of Capital and Cash Requirements in Prudential Bank Regulation," Journal of Applied Corporate Finance, 24, Winter, 33-41.

C.W. Calomiris, 2013. "Reforming Banks without Destroying Their Productivity and Value," Journal of Applied Corporate Finance, 25, 14-20.

C.W. Calomiris and M.Carlson, 2015. "Rediscovering Macro-Prudential Regulation:The National Banking Era from the Perspective of 2015," March.

C. W. Calomiris and S.H. Haber, 2014. Fragile By Design: The Political Origins of Banking Crises and Scarce Credit, Princeton University Press.

C.W. Calomiris, F. Heider, and M. Hoerova, 2015. "A Theory of Bank Liquidity Requirements," May.

C.W. Calomiris and R. Herring, 2013. "How to Design a Contingent Convertible Debt Requirement That Helps Solve Our Too-Big-to-Fail Problem," Journal of Applied Corporate Finance, 25, Spring, 66-89.

C.W. Calomiris and C.M. Kahn, 1991. "The Role of Demandable Debt in Structuring Optimal Banking Arrangements," American Economic Review, June, 497-513.

C.W. Calomiris and D. Nissim, 2014. "Crisis-Related Shifts in the Market Valuation of Banking Activities," Journal of Financial Intermediation, 23, 400-435.

S. Fleitas, P. Fishback and K. Snowden, 2015. "Why Does Recovery from Mortgage Credit Crises Take So Long? Institutional Causes of Delay in Liquidation of Troubled Buildings and Loans during the Great Depression," July.

H. Huizinga and L. Laeven, 2009. "Bank Valuation and Accounting Discretion during a Financial Crisis," Journal of Financial Economics 106 614-34.

O. Jorda, M. Schularick, and A. Taylor, 2015. "The Great Mortgaging: Housing Finance, Crises, and Business Cycles," July.

TESTIMONY OF DR. SUJIT CHAKRAVORTI
MANAGING DIRECTOR AND CHIEF ECONOMIST
THE CLEARING HOUSE ASSOCIATION, L.L.C.
BEFORE THE
COMMITTEE ON FINANCIAL SERVICES
UNITED STATES HOUSE OF REPRESENTATIVES
"ENDING 'TOO BIG TO FAIL:' WHAT IS THE PROPER ROLE OF CAPITAL AND LIQUIDITY"

THURSDAY, JULY 23, 2015

Chairman Hensarling, Ranking Member Waters, and members of the Committee, thank you for inviting me to testify today on the critical topic of bank capital standards. My name is Dr. Sujit Chakravorti, and I am a Managing Director and Chief Economist at The Clearing House Association L.L.C.

Established in 1853, The Clearing House is the oldest banking association and payments company in the United States. It is owned by twenty-four commercial banks that collectively hold more than half of all U.S. deposits and employ over one million people in the United States and more than two million people worldwide. The Clearing House Association L.L.C. (The Clearing House) is a nonpartisan advocacy organization that represents the interests of its owner banks by developing and promoting policies to support a safe, sound, and competitive banking system that serves customers and communities.

Introduction

The strength and resilience of the American banking system are essential as banks serve as unique financial intermediaries between those who save and those who borrow; those who are unwilling to take risks and those who are willing to bear risk for a price; and those who make payments and those who receive payments. Our modern economy relies on banks to provide these critical financial intermediation functions. The recession following the 2008 financial crisis was an example of just how significant those economic consequences can be.

As members of this Committee are well aware, the financial crisis brought to light a number of fragilities in our financial system and highlighted the critical importance of maintaining sufficient loss-absorption in the banking system. In the years since the crisis, banks have responded by significantly increasing both the quantity and quality of capital they hold. In fact, between early 2008 and late 2014 the largest bank holding companies more than doubled the amount of their common equity Tier 1 (CET1) capital relative to risk-weighted assets from 5.6% to 12.3% and increased their CET1 relative to total assets from 5.9% to 8.8%, which is referred to as the leverage ratio.[1] U.S. regulators have similarly responded by rapidly overhauling the bank regulatory capital framework, including increased requirements for the quantity and quality of capital banks must hold; changes making the risk-weights used in our risk-based capital system more conservative; the introduction of capital stress-testing and a supplemental

[1] Based on Bank Holding Companies with assets above $50 billion. Source: Quarterly Trends for Consolidated U.S. Banking Organizations 2014Q4, Federal Reserve Bank of New York.

leverage ratio for larger banks; and the forthcoming introduction of a Total Loss Absorbing Capacity (TLAC) requirement, which will mandate that banks hold significant amounts of long-term debt that may convert into equity at resolution.

In light of these major changes, I commend the Committee for taking this opportunity to take stock of the existing state of bank capital regulation and evaluate the potential consequences, both intended and unintended, of all these recent changes. At The Clearing House, we have been extensively engaged, through comment letters, white papers, and empirical research, in providing our own views and analysis on these questions, and I appreciate the opportunity to share my own observations on bank capital today.

Robust capital requirements are clearly an essential tool for both promoting the safety and soundness of individual institutions and enhancing the stability of the financial system as a whole. Simply put, capital acts as a cushion that can absorb potential losses from all the activities in which banks engage, ultimately supporting their resiliency and solvency. This cushion is especially important for banks that, because of their unique deposit-taking and lending functions, are inherently more leveraged than nonfinancial businesses, and therefore more sensitive to potential losses.

At the same time, however, as we economists like to say, there is no such thing as a "free lunch." As I will talk about in more detail shortly, increasing the level of capital a bank must hold – at least above certain levels – necessarily entails costs. For example, increasing bank capital requirements may result in a reduction in key banking activities that support our economy, including certain types of mortgage and small business lending, commercial finance, market-making and other financial intermediation services. The key objective, from a policy perspective, is to strike the right balance.

The academic research, however, is inconclusive as to how to achieve an optimal level of bank capital that supports the stability and resiliency of banks without unduly constraining key lending and other bank services on which our economy depends. In other words, how do we calibrate our bank capital requirements to strike that appropriate balance between the potential benefits of enhanced bank safety and soundness and the potential costs to our economy? I wish there was a clear consensus around how much capital is the "right amount," but unfortunately academics and policymakers continue to disagree on this difficult question. What is clear, however, is that there is a tradeoff.

The rest of my testimony will provide further detail on each of the key points I have touched upon: *first*, by summarizing the state of the economic literature on the costs and benefits of capital regulation; *second*, by describing in more detail the enormous changes that we have seen post-crisis in the bank capital regulatory landscape and the ensuing improvements to both the quality and quantity of bank capital; and *third*, by exploring reforms made in areas other than capital regulation that impact banks' financial intermediation activities. My ultimate conclusion is that given the recent and very significant reforms to the regulatory capital framework, as well as the relative uncertainty regarding the potential consequences – both intended and unintended – for banking activity and the economy, we should pause, and closely monitor and evaluate the

new capital framework to better understand these consequences before we consider further changes to it.

The Academic Debate on Capital Regulation

The fundamental purpose of imposing minimum bank capital requirements is to mitigate the risk of bank failures and the potential negative implications for the financial sector and the economy. Some have proposed that banks be required to hold so much capital that their probability of default would become negligible. Indeed, the work of Modigliani and Miller (1958) shows that, in theory, capital structure has no impact on the cost of capital relative to debt, a conclusion some have invoked in suggesting there is no reason banks should not face significantly higher capital requirements from pre-crisis levels (Admati et al, 2013). However, when modifying the stylized conditions in Modigliani and Miller to capture the economic realities of our financial system (for example, taxes and asymmetric market information), the capital-debt mix becomes important in determining the relative price of funding through capital, making such proposals so costly as to be unworkable. Indeed, recent empirical evidence suggests that raising capital requirements increases the weighted average cost of capital (Baker and Wurgler, 2013). The economic literature suggests several key questions that should be considered in the setting of capital standards. If capital is indeed more expensive relative to debt, what are the implications of requiring banks to hold more capital? Would these heightened regulatory capital standards have any effect on their critical intermediation activities? If so, would potential borrowers be left without credit or would they seek and obtain credit elsewhere? And if so, what does it mean for financial stability if credit disintermediates into the less regulated financial sector? The present debate about the optimal level of capital focuses on the tradeoffs between the benefits for increased financial stability at the expense of the potential drag on economic growth.

Changes in bank capital requirements may affect lending in two ways. First, if a bank's cost of capital exceeds the rate of return derived from cash flows from a new loan, the loan may not be made or the bank will increase the rate charged for the loan to cover its cost of capital. In the case of a rate increase, regulatory capital costs may be reflected in the cost of financial intermediation.

Alternatively, note that capital requirements are typically measured relative to either total assets – that is, through a leverage ratio approach - or to risk-weighted assets – that is, through a risk-based capital ratio approach. Faced with increasing capital requirements, banks may simply choose to respond by shrinking their assets, which they might accomplish by making fewer loans, selling loans or other assets, or reducing market making activities, to name just a few approaches. If asset shrinkage is limited to a subset of banks, then other banks might potentially pick up the slack without major implications for aggregate intermediation activity. However, there are likely to be serious consequences if many banks respond to higher capital requirements by reducing the flow of credit to the economy. Moreover, asset shrinkage by regulated banks may push borrowers to seek credit from non-bank lenders that are subject to less regulation, with potentially negative consequences for financial stability.

There is a substantial universe of economic literature exploring the implications of higher capital requirements for lending and economic activity. This research typically takes one of three alternative approaches. The first approach looks at banks that are subject to different capital requirements and seeks to determine whether banks with higher capital requirements or that face a larger shortfall in meeting required capital levels have different lending patterns. Assuming that raising additional capital is costly, banks with a larger capital shortfall should respond by reducing lending relative to their peers. Alternatively, if the cost of capital does not exceed the cost of debt, the lending patterns across banks with different capital profiles would be expected to be similar.

Haubrich and Wachtel (1993) follow this approach in analyzing the response of U.S. commercial banks to the 1988-89 announcement and implementation of higher capital requirements. They find that relatively undercapitalized banks shifted the composition of their portfolio in response to the new capital requirements, effectively shrinking their risk-weighted assets. Their results are consistent with the findings of Bernanke and Lown (1991) and Francis and Osborne (2009), as well as Aiyar, Calomiris, and Wieladek (2014) who identified a similar pattern of asset shrinkage among U.S. and U.K. banks in response to increased regulatory capital requirements.

The second approach looks at unexpected shocks to bank capital and follows trends in lending among banks subject to the capital shock before and after its occurrence, attributing the resulting changes in lending to the capital shock. One of the leading examples of this approach is the work by Peek and Rosengren (1997, 2000) who estimate that a significant decline in loan origination by U.S. branches of Japanese banks occurred as a result of a capital shortfall at their parent companies. In addition, they find that the decline in lending by these institutions was followed by a sharp decline in commercial real estate activity in the United States.

A third approach is based on Dynamic Stochastic General Equilibrium (DSGE) models that are designed to capture real-world data with tightly structured macroeconomic models. Given the theoretical foundations of the DSGE models, they are particularly suited for analyzing policy experiments and they can potentially circumvent the limitations of trying to predict a change in economic policy based on relationships observed in historical data, otherwise known as the Lucas Critique (see Lucas, 1976). One of the limitations of DSGE models, however, is their overly simplified assumptions that either intentionally or unintentionally exclude some of the relevant and critical components of financial markets such as a realistic interbank market. These models may understate the magnitude of the impact of capital regulation on GDP because they do not fully capture the effects of various banking products and services. A proper incorporation of the financial sector into the DSGE framework is essential for evaluating macro-prudential policies in both normal times and times of financial stress. Until further research is conducted and the financial sector is properly analyzed through this DSGE prism, caution should be exercised when using DSGE models to guide financial policy decisions.

The implications of higher capital adequacy standards for financial stability are not clear-cut. On the one hand, higher capital requirements reduce an institution's probability of default by forcing shareholders to absorb a larger fraction of losses in times of distress before passing on losses to bondholders and by mitigating moral hazard concerns associated with excessive risk

taking. On the other hand, as noted above, when faced with heightened capital requirements banks may respond by shrinking their assets which can have negative consequences for long-term economic growth (Rosengren, 2011).

Furthermore, increasing evidence suggests that regulatory burden and capital requirements are resulting in the migration of some traditional banking activities to the shadow banking sector (see, e.g., Aiyar, Calomiris, and Wieladek, 2014). With less supervisory oversight and more uncertainty about the quality of this non-bank lending, the growth of shadow banks raises concerns about allocation of credit, output growth, and financial stability.

Capital Adequacy Today: Heightened Standards, More Resilient

The new U.S. capital adequacy standards generally implement many aspects of the Basel III capital framework approved by the Basel Committee and also incorporate changes required by the Dodd-Frank Act. As a result, banks have substantially improved both the quality and quantity of the capital on their balance sheets.

For banks, there have been two major changes to capital adequacy standards. First, there is a new minimum 4.5% ratio of CET1 to risk-weighted assets. The previous standard under Basel I was 4% of Tier 1 capital, which includes instruments other than common equity and is therefore seen as a relatively lower quality type of capital, although the Basel III framework also tightens the definition of Tier 1 capital strengthening that measure as well. Second, regulators have adopted a new capital conservation buffer set at 2.5% of risk-weighted assets, which also must be comprised of CET1. Related reforms have made these requirements even stronger by improving the quality of what can be considered capital and heightened the standards of the risk weights applied to the assets used in the regulatory capital ratios. The United States has also adopted a capital floor (the Collins Amendment).[2]

Additional capital adequacy standards only apply to larger, more complex banks. For example, U.S. global systemically important banks (G-SIBs) will soon be subject to additional capital surcharges based on firm characteristics, which were updated by the Basel Committee in 2013 (Basel Committee on Banking Supervision, 2010) and finalized for U.S. banks earlier this week by the Federal Reserve. The Federal Reserve estimates that these surcharges on CET1 will range from 1 to 4.5 percent of risk-weighted assets according to the Federal Reserve's recently finalized standards implementing, with substantial changes, the international standards agreed upon by the Basel Committee (Federal Reserve System, 2015). The U.S. proposal is also more stringent than the final Basel G-SIB surcharge rule in several key ways, including (i) adoption of surcharge levels much higher for many U.S. G-SIBs than those agreed-upon by the Basel Committee, and (ii) incorporation of a measure of bank reliance on short-term wholesale funding as part of the calibration methodology. In addition, we also expect that a TLAC requirement will soon be introduced in the United States for G-SIBs. TLAC is intended as a measure of a firm's

[2] Among its key features, the Collins Amendment (or Section 171 of the Dodd-Frank Act) requires that the minimum risk-based and leverage capital requirements generally applicable to U.S. banks serve as a floor for certain U.S. banks. The minimum ratios for most banks to be considered "well capitalized" are: risk-based CET 1 – 6.5%; risk-based Tier 1 Capital Ratio – 8%; risk-based Total Capital Ratio – 10%; and Leverage Ratio – 5%.

entire loss absorbing resources and, as a general matter, is comprised of regulatory capital and unsecured long-term debt that can be converted into equity.[3]

In addition to the minimum ratios stipulated by capital adequacy standards, any bank or bank holding company with more than $10 billion in total consolidated assets is required to conduct an annual company-run stress test designed to assess its ability to maintain adequate capital cushions under severely adverse economic conditions. Additionally, any bank holding company with more than $50 billion in total consolidated assets must participate in the annual Comprehensive Capital Analysis and Review (CCAR) process, which examines capital levels under forward-looking scenarios that incorporate their capital plans in a simulation of a severe recession in the United States and abroad; a significant decline in equity markets; and adverse movements in the yield-curve and foreign exchange rates. In addition, the largest bank holding companies must include a significant global market shock affecting their trading portfolios and a major counterparty default scenario as part of the CCAR stress test calculated by the Federal Reserve, making it even more difficult for such institutions to meet the quantitative measures.

The CCAR process differs from the traditional approach to capital regulation in that it is forward-looking and scenario-based, requiring banks to: (i) dynamically adjust to a changing macroeconomic climate; (ii) identify risks unique to their business model; and (iii) develop innovative quantitative methods to monitor their capital levels and streams of revenue, as well as potential losses across various asset classes over a nine-quarter time horizon. The supervisory stress testing framework, therefore, goes beyond traditional capital regulation and serves as a dynamic barometer of financial stability among individual banks as well as the banking system as a whole. As a result of the assumptions built into the CCAR regulatory scenarios, it is often the binding capital constraint for banks to which it applies. Relative to the first supervisory stress tests published in 2009, there is little doubt that the array of capital and other regulatory policies has resulted in a more resilient and stable banking ecosystem. In fact according to the 2015 Dodd-Frank Act Stress Test results, banks today would have 50% higher Tier 1 common capital ratios than in 2008, even after experiencing an economic downturn, in the stress test scenario, far more severe than the last financial crisis.

How Much is Enough? Capital Regulation Considerations Moving Forward

As you continue to wrestle with the question of how much regulatory capital is appropriate, I urge you to bear in mind that the full consequences of the aforementioned changes in regulatory requirements, and in particular their downstream impact to the real economy, have yet to be fully realized or analyzed. That said, it is already clear that the aggregate impact of these proposed and finalized capital rules on banks' – particularly large banks' – capital holdings has been quite significant.

Between 2008 and 2014, banks with over $500 billion in assets have realized a 6.1 percentage point increase in Tier 1 capital to 13.9 percent, a 3.0 percentage point increase in their leverage ratio to 8.5 percent, and a 5.0 percentage point increase in total capital ratio to 16.7

[3] Based on our analysis including the recently finalized G-SIB surcharge rule, the TLAC requirement is approximately 5 times more than the average capital depletion projected under severely adverse stress scenarios in U.S. stress tests.

percent. For banks with between $50 billion and $500 billion in assets, we have seen similar improvements with increases of 5.0, 2.7, and 4.1 percentage points, respectively. And for banks under $50 billion in assets, these increases are 3.4, 4.1, and 3.4 percentage points, respectively (Federal Reserve Bank of New York, 2014). In addition, it is important to note that because regulatory reforms have also strengthened the quality of the capital instruments that can be included in these measurements, these numbers actually underrepresent the improvements made to banks' capital.

These post-crisis improvements in bank capital have been accompanied by similarly substantial improvements in banking organizations' liquidity and risk management, which has been achieved as a result of changes in bank behavior and reflect a multi-faceted array of regulatory reforms in the area of bank liquidity. For example, in the United States, the Liquidity Coverage Ratio ensures that banks have sufficient high quality liquid assets to withstand 30-day periods of severe market stress (and is more stringent than the final Basel Committee standard). Once enacted in the United States, the Net Stable Funding Ratio will ensure that structural long-dated liabilities support less liquid assets. Larger banks must also now undertake liquidity stress tests at least monthly over a variety of time horizons ranging from overnight to one year at a minimum which provides greater certainty that our largest institutions have a better ability to spot issues with their liquidity positions before a severe economic shock occurs. The largest banks are also subject to an additional requirement of annual horizontal exercises in which their liquidity is evaluated by supervisors as part of the Comprehensive Liquidity Analyses and Review (CLAR).

In the context of the wide range of bank capital and liquidity reforms that I have been discussing, the consistent availability of market liquidity has recently become a key concern for market participants and policymakers alike. While these reform measures have increased the liquidity of banks' balance sheets, research on how the full set of new financial regulatory reforms interact to affect market liquidity in stressed and non-stressed periods is in its nascent stages and points to the costs of these regulations. Raising capital adequacy standards may reduce the supply of liquidity in markets sourced from banks by reducing the profitability of engaging in certain markets such as the overnight repurchase agreement (repo) markets and other security financing transactions. Although it appears difficult to attribute recent liquidity events in bond markets to any single factor, I agree with Federal Reserve Governor Daniel Tarullo's recent statements in which he noted that "something does seem to have changed" in the way the markets provide liquidity (Tarullo, 2015). More research is needed to understand how various factors, either individually or collectively, are contributing to this change, such as: (i) capital adequacy standards; (ii) liquidity rules; (iii) increased demand for high quality, liquid assets; (iv) new regulations governing bank market making activities; and (v) an increased role for nonbanks in liquidity provision.

Beyond market liquidity concerns, some have observed other negative impacts that may be attributable to the recent increase in bank capital requirements. For example, some small businesses have experienced an increased cost and reduced availability of credit, which puts them at a relative competitive disadvantage vis-à-vis larger firms that have access to alternative sources of finance (Strongin et al, 2015). In addition, some banks have recently exited or significantly shrunk their footprints in certain capital markets or wholesale businesses, thus

reducing competition in those markets. Banks that provide the operating cash accounts for investment funds and other institutional investors are finding it increasingly challenging to accept certain cash deposits from customers. Other market participants have responded to the demand for services that some banks can no longer profitably provide. Although little hard data is available, there is increasing anecdotal and other evidence that non-bank financial institutions, collectively referred to as the "shadow banking sector," are increasing their activities in certain market segments. Policymakers should remain vigilant in the face of this shift of some traditional banking activities to the less regulated shadow banking sector. Substantial academic research suggests that more stringent bank regulations produce heightened levels of non-bank intermediation.[4] Similarly, researchers at the IMF have found that stricter capital regulations are associated with increases in shadow banking activity (Valckx et al., 2014). With less supervisory oversight and more uncertainty about the quality of lending, the growth of shadow banking activities poses concerns about allocation of credit, output growth, and financial stability.

Conclusion

In closing, I want to thank the Committee for its focus on the critical policy issue of capital adequacy standards. Identifying and setting the optimal levels and types of capital for our nation's banks, big and small, is a critical yet challenging policy objective. Banks are vital to U.S. economic health, but as we witnessed in the recent crisis, they can also be vulnerable to risks. Accordingly, policymakers must balance the benefits to society of maintaining a stable banking system against potential costs of making the economy less vibrant and banking services more costly.

There is no clear answer to be found in the academic literature regarding exactly how much capital or liquidity is the "right amount." What is indisputable, however, is that since the financial crisis, banks of all sizes now hold a significantly higher quality and quantity of capital, and these requirements are projected to increase further as pending rules are finalized and implemented. These higher post-crisis capital levels clearly have made our banking system safer, but we need additional research in order to fully understand their consequences for future economic growth.

This is a good time for policymakers to pause and evaluate where we have recently landed in the tradeoff between financial stability and the banking system's contribution to the U.S. economy.

Thank you for the opportunity to testify before the Committee today. I look forward to answering your questions.

[4] See: Vlackx, et al. (2014) which cites: Kanatas and Greenbaum (1982); Bernanke and Lown (1991); Udell and Berger (1994); and Duca (1992, 2014).

References

Admati, Anat, Peter M. DeMarzo, Martin F. Hellwig, and Paul Pfleiderer (2013), "Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Socially Expensive," Rock Center for Corporate Governance Working Paper Series No. 161.

Aiyar, Shekhar, Charles W. Calomiris, and Tomasz Wieladek, (2014) "Does Macro-Prudential Regulation Leak? Evidence from a UK Policy Experiment," *Journal of Money, Credit, and Banking*, Vol. 46, pp. 181-214.

Baker, Malcolm and Jeffrey Wurgler (2013), "Do Strict Capital Requirements Raise the Cost of Capital? Bank Regulation and the Low Risk Anomaly," NBER Working Paper No. 19018.

Basel Committee on Banking Supervision (2010), "An Assessment of the Long-Term Economic Impact of Stronger Capital and Liquidity Requirements."

Bernanke, Ben S., and Cara S. Lown (1991), "The Credit Crunch," *Brookings Paper on Economic Activity*, Vol. 2, pp. 205-248.

Carlson, Mark, Hui Shan, and Missaka Warusawitharana (2013), "Capital Ratios and Bank Lending: A Matched Bank Approach," *Journal of Financial Intermediation*, Vol. 22(4), pp. 663-687.

Elliott, Douglas (2009), "Quantifying the Effects on Lending of Increased Capital Requirements," Brookings Institution.

Federal Reserve Bank of New York (2014), "Quarterly Trends for Consolidated U.S. banking Organizations: Fourth quarter 2014," *Research and Statistics Group.*

Federal Reserve System (2014) "Risk-Based Capital Guidelines: Implementation of Capital Requirements for Global Systemically Important Holding Companies," 12 CFR Part 217.

Francis, William and Matthew Osborne (2009), "Bank Regulation, Capital and Credit Supply: Measuring the Impact of Prudential Standards," FSA Occasional Paper Series No. 36.

Hanson, Samuel G., Anil K Kashyap, and Jeremy Stein (2011), "A Macroprudential Approach to Financial Regulation," *Journal of Economic Perspectives*, Vol. 25(1), pp. 3-28.

Haubrich, Joseph and Paul Wachtel (1993), "Capital Requirements and Shifts in Commercial Bank Portfolios," Federal Reserve Bank of Cleveland, Economic Review 29, pp. 2-15.

Kashyap, Anil K., Jeremy C. Stein and Samuel Hanson (2010), "An Analysis of the Impact of "Substantially Heightened" Capital Requirements on Large Financial Institutions."

Lucas, Robert J. (1976), "Econometric Policy Evaluation: A Critique," *Carnegie-Rochester Conference Series on Public Policy*, Vol 1(1), pp. 19-46.

Modigliani, Franco and Merton H. Miller (1958), "The Cost of Capital, Corporation Finance, and the Theory of Investment," *American Economic Review*, 1958 Vol. 88, pp. 587-597.

Peek, Joe and Eric Rosengren (1997), "The International Transmission of Financial Shocks: The Case of Japan," *American Economic Review*, Vol. 87(4), pp. 495-505.

Peek, Joe and Eric Rosengren (2000). "Collateral Damage: Effects of the Japanese Bank Crisis on Real Activity in the United States," *American Economic Review*, Vol. 90(1), pp. 30-45.

Posner, Eric (2014), "How Do Bank Regulators Determine Capital Adequacy Requirements?" Coase-Sandor Institute for Law and Economics, Working Paper No. 698.

Rosengren, Eric (2011), "Defining Financial Stability, and Some Policy Implications of Applying the Definition," Keynote Remarks at the Stanford Finance Forum Graduate School of Business, Stanford University.

Strongin, Steve, Amanda Hindlian, Sandra Lawson, Katherine Maxwell, Koby Sadan, and Sonya Banerjee (2015), "The Two-Speed Economy," Goldman Sachs Global Markets Institute.

Tarullo, Daniel (2015), "U.S. Financial Regulation, Five Years After Dodd-Frank" Transcript from C. Peter McColough Series on International Economics, Council on Foreign Relations.

The Clearing House (2015), "Banking Brief: Overview of Total Loss Absorbing Capacity."

Valckx, Nico, Goran Amidzic, Nicolas Arregui, Johannes Blankenheim, Johannes Ehrentraud,Dale Gray, Artak Harutyunyan, John Kiff, Yoon-Sook Kim, Ivo Krznar, Alexander Massara, Samar Maziad, Miguel Segoviano, and Nobuyasu Sugimoto (2014), "Shadow Banking Around the Globe: How Large, and How Risky?" *Global Financial Stability Report,* International Monetary Fund, pp.65-104.

214 Massachusetts Avenue, NE • Washington DC 20002 • (202) 546-4400 • heritage.org

CONGRESSIONAL TESTIMONY

Ending 'Too Big to Fail': What is the Proper Role of Capital and Liquidity?

Testimony before
Committee on Financial Services,
United States House of Representatives:

July 23, 2015

Norbert J. Michel, PhD
Research Fellow in Financial Regulations
The Heritage Foundation

Basel III Capital Standards Do Not Reduce the Too-Big-to-Fail Problem

Norbert J. Michel, PhD, and John L. Ligon

Abstract: *Many experts recognize that the government will still step in to support some financial institutions rather than allow them to go through bankruptcy. Dodd–Frank has worsened this too-big-to-fail problem by expanding the capital requirements that contributed to the 2008 financial crisis. The best way to end the too-big-to-fail problem is for the federal government to credibly commit that it will not use taxpayer funds to save financially troubled companies. A credible commitment to let firms fail would allow the private sector to price risk as accurately as possible and would alleviate the need for formal capital standards. A good first step toward making such a commitment believable would be to eliminate risk-based capital requirements and to expose financial firms' managers to more market discipline.Simultaneously, Congress should begin to dismantle the regulations that Dodd–Frank imposed on the financial sector.*

Many experts recognize that the government will still step in to support some financial institutions rather than allow them to go through bankruptcy. This "too-big-to-fail" doctrine remains at least as prominent now—and as costly to taxpayers—as it was prior to the 2008 crisis, partly because the Dodd–Frank bill exacerbated the problem. For instance, in the post–Dodd–Frank world, any firm deemed a high risk to U.S. financial stability enjoys implicit government protection.

One of the many ways in which Dodd–Frank worsened the too-big-to-fail problem is its expansion of the capital requirements that contributed to the 2008 financial crisis. For decades, federal regulators have required banks to hold a certain amount of capital based on how much money they lend to customers. These rules are supposed to force banks to build a cushion against unexpected losses, but they ultimately contributed to the financial meltdown because they were filled with arbitrary measures of risk.

Although quite simple in theory, these capital requirements have always been incredibly complex, and Dodd–Frank has only made the situation worse. The new risk-based requirements are not yet fully implemented but have already placed an enormous regulatory burden on financial firms, even small banks for which these rules were never intended. There is no reason to believe that these new capital regulations will prevent or even mitigate future financial crises, much less solve the too-big-to-fail problem. Implementing these rules will most likely impede economic growth without any real reduction in systemic risk.

Ending Too Big to Fail

The best way to end too big to fail would be for the government to credibly announce that it will not use taxpayer funds to support failing firms. A credible commitment to let troubled firms fail would alleviate the need for regulatory capital standards because markets would price risk and develop their own capital standards accordingly. Such a commitment is not possible in the current environment, so the best way to lessen the

impact of the too-big-to-fail problem is to make regulatory changes that can lead to a believable no-bailout policy.

Pull Quote: The best way to end too big to fail would be for the government to credibly announce that it will not use taxpayer funds to support failing firms.

For example, people would be likely to lower their expectations of government bailouts if banks' capital requirements are reformed to make financial distress less disruptive to the economy.[1] Despite many different proposals to reform capital standards, Dodd–Frank essentially imposed an updated version of the requirements that were in place before the 2008 crisis. This development is counterproductive because risk-based capital requirements, a centerpiece of the Dodd Frank rules, were a key contributor to the meltdown.

Risk-based standards are not part of the solution to the too-big-to-fail problem. A better approach, more in line with basic free-market principles, would be to simplify, lower, and improve the incentive effects of capital standards. This plan should be implemented by eliminating risk-based capital standards and removing other costly regulations, which ultimately lead bank managers to use more debt to increase their shareholders' returns.[2] Merely increasing the percentage of required equity that banks must hold against their assets does not solve the problems that contributed to the 2008 crisis. Instead, increasing the percentage of required equity arguably amplifies those difficulties.

The Main Problem with Higher Capital Standards

In the present context, capital refers to money that people can use to run a corporation. Business owners can raise this money by borrowing or by selling shares of equity in their company.[3] While borrowed funds must be paid back to avoid bankruptcy, money raised by selling equity does not need to be repaid. In the event a firm fails, equity holders can lose all of their investment while the firm's assets are sold to pay back the lenders. Thus, investors who buy equity in a business take on more risk than those who lend money to the company.

In general, firms do not employ large amounts of equity capital because it is too expensive and because it produces incentives to take high risks. When a company enjoys abnormally high profits, only the shareholders benefit because lenders agree (ahead of time) to receive a fixed rate of interest for providing funds. For instance, lenders would

---

[1]Bailout expectations could also be lowered by reforming bankruptcy laws to ease the dissolution of large financial firms. See Norbert Michel, "Bankruptcy Is Better Than a Bailout," The Heritage Foundation, *The Foundry*, December 19, 2013, http://blog.heritage.org/2013/12/19/bankruptcy-better-bailout/.

[2]Banks earn a large portion of their profits by charging a higher interest rate to borrowers than they pay to depositors. This net-interest margin is typically in the 3 percent to 5 percent range for most banks. Drastically increasing regulations and capital requirements causes banks to "lever up" their shareholder returns by using more debt and less equity, a problem that has been magnified by increasingly complex capital requirements. These statistics can be seen even for the smallest of community banks. See John Lajaunie et al., "Louisiana Community Banks: An Analysis of Recent Performance," Nicholls State University, Department of Finance and Economics *Technical Report* No. ECF11-001, June 2011, https://www.nicholls.edu/news/2010/nicholls-researchers-issue-second-benchmark-report-on-louisiana-banking/ (accessed March 29, 2014).

[3]Selling equity is the equivalent of selling an ownership stake in the company, so the terms "shareholders" and "equity holders" are synonymous.

be due 4 percent interest on their investment in the company whether the firm has minimal, abnormally large, or zero profit. Managers that employ large amounts of equity capital (relative to debt) have an incentive to take on high-risk, high-reward projects to satisfy shareholders' required return.

Therefore, from a bank safety standpoint, requiring too much equity capital is a bad idea because only shareholders can profit from these high-risk earnings. Excessively high equity requirements also impose higher costs which, to some extent, will be passed on to customers through some combination of higher interest rates and less lending. Thus, while requiring any given percentage of equity for financial firms is somewhat arbitrary, setting them "too high" will most likely be self-defeating. This arbitrary nature applies even to the risk-based capital standards that have been used for decades because markets have essentially never determined bank capital standards.

The Basel I Risk-Based Capital Standards

The Federal Reserve and the Federal Deposit Insurance Corporation (FDIC) jointly adopted risk-based capital requirements for U.S. commercial banks in 1988. These rules, phased in through 1990, were based on the Basel I accords, an international agreement reached through the Basel Committee on Banking and Supervision.[4] In recognition of the high cost and inherent problems associated with equity capital, the Basel accords sought to better match capital requirements to the risk level of banks' assets.

Under these rules, U.S. commercial banks have been required to maintain several different minimum equity capital ratios. Banks that fail to meet these requirements can ultimately be dissolved by the FDIC.[5] U.S. banking regulators were implementing Basel II, an updated version of the original rules, at the onset of the financial crisis. As a result of the crisis, regulators stopped that process and, instead, went to work on developing Basel III. These newest rules have not yet been fully implemented in the U.S.

Basel's Tiers and Risk Weights. The Basel I rules use a tiered definition of capital that distinguishes between different "qualities" of capital. In this framework, Tier 1 (core) capital consists of common stock, retained earnings, some preferred stock, and certain intangible assets.[6] Tier 2 (supplementary) capital includes reserve allowances for loan losses, several types of debt, other types of preferred stock, and several types of debt/equity hybrid instruments.[7] A detailed discussion of these components is beyond the

---

[4]The Basel Committee is an international body established in 1974 to consider capital adequacy rules and to mitigate bank risk. The Basel I rules borrowed heavily from the "risk-bucket" approach developed by the Federal Reserve in the 1950s. See Howard D. Crosse, *Management Policies for Commercial Banks* (Englewood Cliffs, NJ: Prentice Hall, 1962), pp. 169–172.

[5]Beginning with the Federal Deposit Insurance Corporation Improvement Act of 1991, banks and their regulators were formally required to take "prompt corrective action" when a bank's capital fails to meet certain standards. See Julie L. Stackhouse, "Prompt Corrective Action: What Does It Mean for a Bank's Liquidity?" *Central Banker*, Fall 2008, https://www.stlouisfed.org/publications/cb/articles/?id=792 (accessed March 29, 2014).

[6]Preferred stock offers a higher priority over common stock in the event a firm is liquidated, and it also provides a fixed dividend (paid prior to any common stock dividends), but it generally has fewer voting rights and less potential for appreciation than shares of common stock.

[7]Bank supervisors make several adjustments to these tiered capital figures to calculate a bank's total regulatory capital. For a full definition and explanation, see Peter Rose and Sylvia Hudgins, *Bank Management & Financial Services*, 7th ed. (New York: McGraw Hill, 2008), p. 484.

scope of this paper, but these definitions of Tier 1 and Tier 2 capital highlight the difficulty in defining exactly what makes up a bank's capital.

Under the Basel I rules, regulators determine whether a bank is adequately capitalized by using these tiered capital figures to calculate several ratios. For instance, a bank is considered adequately capitalized if its ratio of total capital (the sum of Tier 1 and Tier 2 capital) to total risk-weighted assets is at least 8 percent and if its ratio of Tier 1 capital to total risk-weighted assets is at least 4 percent. To calculate its risk-weighted assets, a bank must apply a predefined (by regulators) weight to each asset on its balance sheet as well as to "off-balance-sheet" assets.[8]

Table 1 provides a simplified example of how these risk weights are used to calculate a bank's total capital ratio. Each asset's risk weight is provided in the middle column. The risk weight is used to calculate both the required amount of capital and the total amount of the bank's risk-weighted assets. The bank's total risk-weighted assets, rather than total assets, is used to calculate the capital ratio. The riskier the asset is perceived, the more capital is required in case that asset loses value. Because cash and U.S. Treasury securities are deemed risk-free, no capital is required against these assets. Hence, they have risk weights of zero.

Table 1

Assets		Risk Weights	Risk Weighted Assets	Total Capital Required
Cash	$1,000	0%	$0	$0.00
U.S. Treasuries	$3,000	0%	$0	$0.00
Fannie Mae MBS	$5,000	20%	$1,000	$80.00
Single-Family Home Mortgages	$4,000	50%	$2,000	$160.00
Commercial Loans	$10,000	100%	$10,000	$800.00
total:	$23,000		$13,000	$1,040.00

Basel I assigned risk weights of 20 percent for government-sponsored enterprise (GSE) mortgage-backed securities (MBS), so they contribute only $1,000 to this hypothetical bank's risk-weighted assets ($5,000 x 0.20 = $1,000).[9] This bank would also be required to hold $80 in capital against its MBS ($5,000 x 0.20 x 0.08 = $80). At the other end of the perceived risk spectrum, commercial loans have a risk weight of 100 percent, so every dollar of these loans counts as a dollar of risk-weighted assets, and the bank must hold the full 8 percent in total capital.

[8]Off-balance-sheet assets are those assets that do not appear on a firm's balance sheet, typically because the company has a modified or contingent claim on the asset.
[9]A mortgage-backed security is an investment whose value is tied to a group of mortgages.

As shown on Table 1, the total capital ratio for this bank is 8 percent (1,040/13,000 = 0.08). However, measured against the bank's total assets, this amount represents less than 8 percent. In other words, the risk weights reduce the total amount of required capital versus a non-weighted scheme. More specifically, the weights allow the bank to hold capital of less than 5 percent of its *total* assets.

While somewhat oversimplified, this example replicates the manner in which banks were required to estimate their capital ratios under Basel I. Although brief, the example provides a glimpse into the complexity and subjectivity of estimating bank safety and soundness under these rules. For example, MBS proved to be much riskier than even regulators thought.

That mistake is not entirely surprising because regulators set risk weights based on how risky they think various assets will be in the future—a process that is inherently error prone. Not only are mistakes likely because people lack clairvoyance, but also because the process essentially prevents the private sector from finding norms for capital requirements. In other words, managers have been forced to adhere to – and influence – arbitrary standards as opposed to letting their own losses dictate the amount of capital they should hold.[10] Although it is not entirely clear that any form of legal capital requirements are economically necessary, the Basel risk-based system certainly did not provide financial safety.

Basel I and the 2008 Financial Crisis

In the wake of the 2008 crisis, the Basel I risk-based standards were clearly inadequate. According to the FDIC, U.S. commercial banks exceeded their minimum capital requirements by 2 to 3 percentage points (on average) for six years leading up to the crisis.[11] One contributing factor to the risk-based standards' failure was that purchasing MBS enabled banks to reduce their capital and remain (nominally) adequately capitalized.

Pull Quote: In the wake of the 2008 crisis, the Basel I risk-based standards were clearly inadequate.

As noted, the Basel I capital standards called for banks to maintain 8 percent total capital against their risk-weighted assets. This system gave banks the incentive to invest in assets with low risk weights to reduce their cost of capital. Banks employed this strategy by investing heavily in the MBS issued by Fannie Mae and Freddie Mac, two GSEs. The MBS carried only a 20 percent risk weight and had the advantage of providing a higher return than government bonds.

Banks needed to hold only $1.60 in capital per $100 of MBS ($100 x 0.08 x 0.20 = $1.60) because of the lower risk weight. Home mortgages, on the other hand, carried a 50 percent risk weight, requiring capital of $4 for every $100 ($100 x 0.08 x 0.50 = $4.00).

---

[10] For a discussion of this process (generally termed regulatory capture) see Judge Richard Posner, The Concept of Regulatory Capture: A Short, Inglorious History, in Preventing Regulatory Capture: Special Interest Influence and How to Limit it, Ed. by Daniel Carpenter and David Moss, 2013, at http://www.tobinproject.org/sites/tobinproject.org/files/assets/Posner%20The%20Concept%20of%20Regulatory%20Capture%20(1-16-13).pdf (accessed April 16, 2014).

[11] Juliusz Jablecki and Mateusz Machaj, "The Regulated Meltdown of 2008," *Critical Review*, Vol. 21, Nos. 2–3 (2009), pp. 306–307.

Thus, selling its mortgages to GSEs and then buying GSE-issued MBS allowed banks to lower their required capital by 60 percent (from $4 to $1.60) while earning a return (on MBS) that was higher than what was available on risk-free securities.

Stating these facts is not meant to suggest that banks "gamed" the system or did anything nefarious by purchasing MBS. In fact, there is very little reason to believe that banks thought the MBS they were buying would lose so much value—bank managers tend to prefer staying in business, after all. Regardless, the Basel requirements were—and still are—a system designed to match lower capital requirements against lower risk assets.

It is this part of the Basel standards that broke down. The Basel standards were not inadequate because they required too little capital per se, but because regulators failed to properly measure risk. This problem will always exist because the true risk of any financial asset can never be known until after the fact. People poorly estimated the risk of MBS prior to 2008, but the same could have happened with virtually any other asset.

Dodd–Frank and Basel III

The 2010 Dodd–Frank Wall Street Reform and Consumer Protection Act required federal banking agencies to develop countless rules and regulations. Although the legislation did not explicitly require adoption of the Basel III rules, the bill included language—mostly in Sections 165 and 171—that effectively directed federal banking agencies to implement the Basel III proposals.[12] These new regulations go well beyond minor adjustments to banks' capital requirements.

With some exceptions for the smallest banks, U.S. depository institutions will need to adhere to higher risk-based capital, leverage (overall debt), and liquidity (short-term debt) standards as well as to a new countercyclical capital conservation buffer. This capital conservation buffer is supposed to maintain credit availability by increasing banks' capital when economic conditions improve and decreasing it when economic conditions worsen.[13] In general, the new Basel III rules are supposed to be an improvement over earlier versions because they apply a "macro" regulatory view as opposed to micro-level scrutiny.

This approach is supposed to be better because Basel III's predecessors focused too much on the safety and soundness of individual institutions. Purportedly, the new rules are tailored to prevent financial difficulties at any one institution from carrying over into the broader economy. One problem with this claim is that it ignores a basic justification for creating the Federal Reserve. Congress created the Fed in 1913 to prevent banking crises from causing widespread economic harm, not to save a few individual banks. Yet the new rules are supposed to improve financial stability because *now* the Fed will finally shift to

[12]Although most of the Dodd–Frank requirements—and the Basel III rules themselves—are aimed at large international banks, U.S. federal banking regulators have announced that they will impose the Basel III standards on U.S. commercial banks of all sizes.

[13]The new regulations are apparently at least partly responsible for a drop in the number of new banks created and for increased concentration in the industry—a risk not addressed in Basel III. The number of banking institutions in the U.S. is now at its lowest level since the Great Depression. See Ryan Tracy, "Tally of U.S. Banks Sinks to Record Low: Small Lenders Are Having the Hardest Time with New Rules, Weak Economy and Low Interest Rates," *The Wall Street Journal*, December 3, 2013, http://online.wsj.com/news/articles/SB10001424052702304579404579232343313671258?mod=WSJ_hps_LEFTTopStories (accessed March 29, 2014).

a macro-oriented view of regulation.

The Fed, Congress, and the U.S. Treasury have openly discussed their roles in stemming economy-wide *systemic risk* and *financial stability* for decades. In fact, these concepts were mentioned in Federal Reserve testimony before the House Subcommittee on Economic Stabilization in 1991, shortly after the Basel I accords were accepted.[14] Aside from these issues, no empirical evidence shows that any of the new Basel III regulations will prevent financial crises any better than the old rules.[15] The fact that some of the most glaring weaknesses of the original Basel framework remain unchanged in the Basel III rules offers little hope for success. For example, Fannie and Freddie MBS still carry only a 20 percent risk weight.[16]

Pull Quote: The fact that some of the most glaring weaknesses of the original Basel framework remain unchanged in the Basel III rules offers little hope for success.

A Better Approach

Specific capital requirements could be improved in many ways, but any changes should be balanced against the enormous regulatory burden that Dodd–Frank imposed on financial firms. For example, a much simpler approach to minimum capital ratios would be to require banks to maintain a 5 percent common equity to *total* asset ratio. However, regulators should move cautiously because this sort of "flat" capital requirement would actually increase the capital buffer that many banks hold. Simply increasing capital ratios without reducing banks' regulatory burden will likely harm economic growth and do nothing to improve managerial incentives toward taking risks.

Other proposals, such as requiring banks to issue contingent convertible bonds (CoCos), could supplement simplified capital requirements and mitigate excessive risk taking. CoCo bonds serve the dual purpose of bringing market discipline to firm managers and, in the event of financial stress, automatically providing new equity capital through the private sector. Several different types of CoCos have been proposed, but they all share the same basic principles: They are issued as long-term debt securities (bonds) that *may* convert into shares of equity if the firm runs into financial trouble.[17]

---

[14]See John P. LaWare, testimony before the Subcommittee on Economic Stabilization, Committee on Banking, Finance, and Urban Affairs, U.S. House of Representatives, May 9, 1991, https://fraser.stlouisfed.org/docs/historical/federal%20reserve%20history/bog_members_statements/laware_19910509.pdf (accessed March 29, 2014).

[15]However, there is at least one good example of these regulations failing to prevent a crisis. See Paul H. Kupiec, "Basel III: Some Costs Will Outweigh the Benefits," American Enterprise Institute for Public Policy Research *Financial Services Outlook*, November 2013, http://www.aei.org/outlook/economics/financial-services/banking/basel-iii-some-costs-will-outweigh-the-benefits/ (accessed March 29, 2014).

[16]See U.S. Department of the Treasury, Office of the Comptroller of the Currency, and Board of Governors of the Federal Reserve System, "Final Rule: Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Capital Adequacy, Transition Provisions, Prompt Corrective Action, Standardized Approach for Risk-weighted Assets, Market Discipline and Disclosure Requirements, Advanced Approaches Risk-Based Capital Rule, and Market Risk Capital Rule," http://www.federalreserve.gov/aboutthefed/boardmeetings/20130702__Basel_III_Final_Rule.pdf (accessed March 29, 2014).

[17]Although the market is still very small, firms are beginning to issue CoCos. See Stefan Avdjiev, Anastasia Kartasheva, and Bilyana Bogdanova, "CoCos: A Primer," *BIS Quarterly Review*, September

Ideally, CoCos convert from debt to equity when a pre-agreed trigger event occurs. For instance, a capital-ratio trigger would impose conversion if the firm's capital ratio falls below its required minimum.[18] Naturally, this type of CoCo would still require an arbitrarily selected minimum capital ratio because markets have not been allowed to determine the "correct" amount of CoCos that banks should hold. Ultimately, policymakers should fix this glaring weakness in the financial industry and let banks interact with their customers to determine what their capital requirements should be.

Recommendations for Congress

The Basel risk-weighted capital standards have proven inadequate. Congress should direct regulators to replace the Basel III capital standards that are being implemented with standards that do not require subjective risk assessments of individual assets. Simultaneously, Congress should begin to dismantle the regulations that Dodd–Frank imposed on the financial sector. Going forward, Congress's best courses of action include:

- Repealing the Dodd–Frank Wall Street Reform and Consumer Protection Act.
- Short of a full repeal of the Dodd–Frank act, repealing Title I and Title II of Dodd–Frank or, at the very least, eliminating the Financial Stability Oversight Council.
- Until these changes are politically possible, allowing banks to opt out of all federal banking regulations and government assistance if they convert to a partnership entity. This option should be paired with an explicit statement that these entities will not be eligible for any federal assistance, including FDIC deposit insurance.

The best way to ensure that firms do not take undue risk is to credibly state that owners and creditors—not taxpayers—will be responsible for financial losses. Such a commitment is not possible in the current environment, so Congress can lessen the impact of the too-big-to-fail problem by making the structural changes suggested above. In exchange for relief from the federal regulatory burden, Congress can allow bank owners to assume the risk of their operation, as should be the case with any businesses in any sector of the economy.

Conclusion

The desire to end the too-big-to-fail problem has led to calls for everything from steep increases in capital requirements to arbitrarily breaking up financial institutions deemed too large. These types of proposals are not the answer because they would unduly harm consumers and would not end government bailouts. The new Dodd–Frank rules are similarly misguided because they essentially force financial institutions to comply with recycled versions of old risk-based capital, leverage, and liquidity standards that have already proven themselves inadequate.

The best way to end the too-big-to-fail problem is for the federal government to credibly commit that it will not use taxpayer funds to save financially troubled companies. A

2013, pp. 43–56, http://www.bis.org/publ/qtrpdf/r_qt1309f.pdf (accessed March 29, 2014).

[18]See Charles Calomiris and Richard Herring, "How to Design a Contingent Convertible Debt Requirement That Helps Solve Our Too-Big-to-Fail Problem," *Journal of Applied Corporate Finance*, Vol. 25, No. 2 (Spring 2013), and Mark J. Flannery, "Stabilizing Large Financial Institutions with Contingent Capital Certificates," University of Florida *Working Paper*, October 5, 2009.

credible commitment to let firms fail would allow markets to price risk as accurately as possible and would alleviate the need for formal capital standards. A good first step toward making such a commitment believable would be to eliminate subjective risk projections from capital requirements and to expose financial firms' managers to more market discipline.

—***Norbert J. Michel, PhD**, is a Research Fellow in Financial Regulations in the Thomas A. Roe Institute for Economic Policy Studies at The Heritage Foundation and **John L. Ligon** is Senior Policy Analyst and Research Manager in the Center for Data Analysis at The Heritage Foundation.*

Key Points

- In the post-Dodd-Frank world, a firm deemed a high risk to U.S. financial stability enjoys implicit government protection.
- Implementing the new risk-based capital requirements will most likely impede economic growth without any real reduction in systemic risk.
- The Basel risk-based standards proved inadequate in the wake of the 2008 crisis. According to the FDIC, U.S. commercial banks exceeded their minimum capital requirements by 2 to 3 percentage points for six years leading up to the crisis.
- The original Basel standards were not inadequate because they required too little capital per se, but because they required a subjective assessment of risk. The new Basel standards suffer from the same problem.
- Specific capital requirements could be improved in many ways, but any changes should be balanced against the enormous regulatory burden that Dodd-Frank imposed on financial firms.

****

The Heritage Foundation is a public policy, research, and educational organization recognized as exempt under section 501(c)(3) of the Internal Revenue Code. It is privately supported and receives no funds from any government at any level, nor does it perform any government or other contract work.

The Heritage Foundation is the most broadly supported think tank in the United States. During 2013, it had nearly 600,000 individual, foundation, and corporate supporters representing every state in the U.S. Its 2013 income came from the following sources:

Individuals	80%
Foundations	17%
Corporations	3%

The top five corporate givers provided The Heritage Foundation with 2% of its 2013 income. The Heritage Foundation's books are audited annually by the national accounting firm of McGladrey, LLP.

Members of The Heritage Foundation staff testify as individuals discussing their own independent research. The views expressed are their own and do not reflect an institutional position for The Heritage Foundation or its board of trustees.

The Role of Capital Standards in Assuring a Healthy Financial System

Dr. John E. Parsons
Massachusetts Institute of Technology[1]

Testimony before the Committee on Financial Services,
United States House of Representatives,
in a Hearing on "Ending 'Too Big to Fail': What is the Proper Role of Capital and Liquidity"

July 23, 2015

Introduction

The Dodd-Frank Act has given banking supervisors and other regulators a wide range of tools to help ensure that the US financial markets are healthy and stable. Among its many provisions, the Act reinforced bank supervisors' responsibility to assure that bank holding companies are well capitalized and able to withstand shocks. Supervisors have substantially improved bank capital requirements, although higher capital requirements would probably be beneficial. Amendments that would reduce capital and other risk management requirements or limit the information banks make available to supervisors are dangerous, and threaten to expose taxpayers to more risk.

The Role of Capital

Every business owner knows it takes a bit of capital to get the business started. You want to set up shop? You need to have something to put into the business. You may be able to borrow a portion of the capital needed, but potential creditors will want to know you have some skin-in-the-game, too.

In the decades leading up to the financial crisis of 2007-2009, many banks tried to avoid this simple proposition and operate without much of their own capital at risk. The only reason a bank is able to keep functioning without its own capital at risk, is the taxpayer backstop. Banks perform essential services, and when a crisis erupts, taxpayers' are faced with a hostage situation: if the bank goes down,

[1] Senior Lecturer, MIT Sloan School of Management. All of the views expressed here are my own.

then the services stop, too. Taxpayers are then forced to pay up in order to keep the system operating. The availability of this taxpayer backstop is what makes it possible for a bank to function without much equity capital.

These are the issues at stake in today's discussion of capital requirements. How much of their own money should banks be required to have invested in their business? When times turn tough and the bank runs into a string of losses, will it be the banker's own capital that takes the hit, or, will the taxpayers be the ones who take the hit?

A group of prominent financial economists propose that the figure be at least 15%.[2] Even with the recently announced capital surcharges for the largest US banks, the capital required is well below that prudent level.[3]

The Many Different Ratios

Discussions about bank capital requirements get very confusing very fast. What starts out as a simple ratio of two numbers—equity in the numerator and assets in the denominator—quickly turns into a discussion of many alternative ratios distinguished by the many different ways one can define equity and assets. Sometimes the push to use an alternative ratio is inspired by banker self-interest: if they can convince us that some of their assets "don't count", then they can get by with less capital.[4] But some of the variety in ratios reflects the complex nature of the banking system and the many different activities that share the label "banking". Each of us is familiar with the banks' role taking deposits and, perhaps their role in making loans. Even in these familiar businesses there are different types of deposits and types of loans in which different banks specialize. Mortgage servicing is another line of business that may be familiar to many. Less familiar to the average person are the lines of business that involve global payments, custodial services, and market making services. These diverse lines of business

[2] "Healthy banking system is the goal, not profitable banks," Financial Times, November 9, 2010. The 15% figure measures equity to banks' total, non-risk-weighted assets.

[3] Federal Reserve, Press Release, July 20, 2015, http://www.federalreserve.gov/newsevents/press/bcreg/20150720a.htm. http://www.usatoday.com/story/money/2015/07/20/fed-capital-surcharges/30413471/.

[4] An outstanding guide to understanding bank capital and capital requirements is the book by Professors Anat Admati and Martin Hellwig, The Bankers' New Clothes, Princeton University Press, 2013.

require different investments and are exposed to different risks. The amount of capital needed to assure that the equity owners cover the business' risk may be different.

I will use as an example a line of business that I pay particular attention to, dealing in derivatives.[5] Although these dealerships are major lines of business, they hardly register on the banks' balance sheet. For example, JP Morgan's 2014 balance sheet shows total assets of more than $2.5 trillion. That number includes less than $80 billion in derivatives, although JP Morgan actually holds more than $1.3 trillion in derivative assets.[6] That is because US accounting rules permit the bank to net out a large fraction of its derivative liabilities from its derivative assets when presenting its balance sheet. However, banks reporting under international accounting standards must report a much larger amount of its derivative assets on its balance sheet: they cannot net out as large a fraction of their derivative assets.

Which version of total assets should be used in calculating a bank's capital ratio, the net assets or the gross assets or something else?

The major dealers argue in favor of the US GAAP definition where a significant portion of the assets have been netted down.[7] They focus on the fact that in bankruptcy a large amount of the derivative liabilities will be netted against the derivative assets.

This is clearly wrong. The focus on what happens in bankruptcy is a terrible example of whistling past the graveyard. The problem is that this netting only takes place if we arrive at bankruptcy with those same exposures in place. A lot can happen before a bank fails which changes the picture dramatically. More importantly, what we first need to be concerned about are the forces that drive a bank towards failure. We should want to avoid failure in the first place. In that regard, net derivative asset understates the risk.

---

[5] The CFTC's list of designated dealers is here:
http://www.cftc.gov/LawRegulation/DoddFrankAct/registerswapdealer

[6] JPMorgan Chase & Co. Annual Report 2014. The balance sheet is on page 174. The detail on the derivative holdings, is in Note 6 to the Financial Statements, on page 186 under "Total Derivative Receivables". The gross figure is calculated by summing the Level 1, 2 and 3 values.

[7] ISDA, "Netting and Offsetting: Reporting derivatives under U.S. GAAP and under IFRS," May 2012.
https://www2.isda.org/attachment/NDQxOQ==/Offsetting%20under%20US%20GAAP%20and%20IFRS%20-%20May%202012.pdf

For a bank that deals in derivatives, a large fraction of the derivatives should be thought of as short-term positions in the same fashion as demand deposits. Counterparties expect their dealers to stand ready to liquidate or novate positions, just as people expect to be able to withdraw the balances in their checking and savings accounts–on demand. Were a dealer bank to hold up liquidations, it would only add fuel to the fire of suspicion that the dealer bank is insolvent. Consequently, a small net exposure at a dealer bank can suddenly balloon to a large net exposure over the next few days as counterparties liquidate or novate the positions on which the bank owes them money. A regulator that paid attention only to the banks net exposure would not have appreciated the dangers of such a run. Moreover, should the bank ultimately arrive in bankruptcy where the derivative assets and liabilities are netted against one another, the scale of actual netting will now be much smaller than originally anticipated due to the intervening bank run. The original net exposure was deceptive in measuring the ultimate losses to those parties left holding the bag.

We need only look back at two major bank runs of 2008 to see the point—Bear Stearns and Lehman Brothers. The Report of the Financial Crisis Inquiry Commission is especially detailed on how derivative counterparties participated in the run on Bear.[8] Good popular accounts are available in a Vanity Fair piece by Bryan Burroughs and in William Cohen's book House of Cards.[9] A more technical discussion is provided by Professor Darrel Duffie in an article on the "Failure Mechanics of Dealer Banks".[10]

The example of a derivative dealer's risk explains why banking supervisors do not take the balance sheet at face value. The Federal Reserve, for example, obtains reports that include the derivative dealer's full gross portfolio positions, and also requires the bank to calculate measures of potential exposure that reveal some of the potential risks embedded in the business of dealing derivatives along with other sources of systemic risk. The risk of a run on a dealer and other liquidity risks also motivate complementary controls such as the Liquidity Coverage Ratio.

---

[8] Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, see esp. pp. 287-288 & 291. See also their conclusion on Lehman, p. 343. http://fcic.law.stanford.edu/report.

[9] Bryan Burrough "Bringing Down Bear Stearns," Vanity Fair, August 2008. http://www.vanityfair.com/news/2008/08/bear_stearns200808. William Cohan, House of Cards: A Tale of Hubris and Wretched Excess on Wall Street, Doubleday, 2009.

[10] Duffie, Darrell. 2010. "The Failure Mechanics of Dealer Banks." Journal of Economic Perspectives, 24(1): 51-72. https://www.aeaweb.org/articles.php?doi=10.1257/jep.24.1.51.

This brings me to some of the current proposals for amending Dodd-Frank and bank capital regulations.

Reform of the Reform?

The Dodd-Frank Act reinforces bank supervisors' responsibility to assure that banks hold adequate capital. It mandates higher scrutiny as banks grow larger and more complex. The provisions in Section 165 have become a focal point of late, with some proposals made to raise the $50 billion threshold. There have also been proposals to encumber the supervisory process by requiring designation by the Financial Stability Oversight Council before the higher scrutiny could be applied.

Proponents suggest that the current law labels all bank holding companies with assets above $50 billion figure systemic, and that they are all held to a uniform higher standard that is inappropriate to those closer to the $50 billion size. This is not true. The $50 billion figure is a threshold for increased scrutiny and gives supervisors the authority to apply differentiated measures as the facts demand it. Federal Reserve Governor Daniel Tarullo and FDIC Chairman Martin Gruenberg testified about this process in Senate hearings this past March.[11] In testimony earlier this month to your Subcommittee on Financial Institutions and Credit, my colleague Professor Simon Johnson provided detail on how the Federal Reserve's Systemic Risk Report enabled the Fed to differentiate among these bank holding companies and determine which ones merited additional measures, and he provided useful detail on specific bank holding companies.[12]

Supervisors can't know about risks if they don't look. Raising the threshold only invites blindness to risks, inadequate capital requirements, and the return of a taxpayer backstop to banks. The letter

---

[11] Governor Daniel K. Tarullo, Application of Enhanced Prudential Standards to Bank Holding Companies Before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington, D.C. March 19, 2015, http://www.federalreserve.gov/newsevents/testimony/tarullo20150319a.htm. Martin J. Gruenberg, Chairman, Federal Deposit Insurance Corporation: Examining the Regulatory Regime for Regional Banks before the Committee on Banking, Housing, and Urban Affairs; 538 Dirksen Senate Office Building; Washington, DC, March 19, 2015, https://www.fdic.gov/news/news/speeches/spmarch1915.html.

[12] Simon Johnson, "Examining the Designation and Regulation of Bank Holding Company SIFIs," Prepared remarks submitted to the Financial Institutions and Consumer Credit Subcommittee of the House Financial Services Committee for the hearing "Examining the Designation and Regulation of Bank Holding Company SIFIs", July 8, 2015, http://www.iie.com/publications/testimony/johnson20150708.pdf.

from Americans for Financial Reform in opposition to HR 1309 helps explain these dangers in that proposal, as does the Fact Sheet from the organization BetterMarkets.[13]

[13] http://ourfinancialsecurity.org/2015/03/afr-presentation-to-senate-banking-staff-on-regulation-of-large-regional-banks/, and http://bettermarkets.com/blog/updated-fact-sheet-everything-you-need-know-about-50-billion-threshold.