PANEL 2: BANKING REFORM

MODERATOR: Ryan Bubb
PANELISTS: Thomas C. Baxter, Jr., H. Rodgin Cohen, Richard K. Kim, Annette L. Nazareth, Lawrence J. White

PROFESSOR RYAN BUBB: Good afternoon. Welcome back. My name is Ryan Bubb. I'm on the faculty here at NYU School of Law, and I'm very lucky to be moderating our next panel, which will focus on banking regulation and other financial institution regulation that has been reformed by the Dodd-Frank Act, and its likely future course and consequences.

The recent financial crisis was, of course, precipitated by the bursting of the housing bubble. Many financial institutions experienced substantial losses from the collapse of the housing market. And for several large, highly-leveraged financial institutions, those losses led to a run by their short-term creditors who refused to roll over their debt. As you all know well, we lost some household names. Bear Stearns was in an arranged sale to JPMorgan Chase backed by the government, and, of course, Lehman Brothers ultimately declared bankruptcy. Moreover, concern about the creditworthiness of banks and other financial institutions resulting from this shock to asset prices led to a freezing of interbank credit markets and a more systemic drying up of credit. And these problems in the financial sector had massive macroeconomic effects that we're living with today - a sharp drop in economic output and sustained high unemployment.

Avoiding future financial crises is, of course, an important goal of financial reform and a number of the features of the Dodd-Frank Wall Street Reform and Consumer Protection Act attempt to increase the stability of the financial system. Most centrally, perhaps, the Dodd-Frank Act subjects systemically important financial institutions, which are those deemed most likely to cause system-wide problems if they fail, to more intensive oversight. It also creates a new insolvency framework intended to make it easier for regulators to liquidate systemically important financial institutions. And under the so-called Volcker rule, the Dodd-Frank Act prohibits commercial banks and institutions owning commercial banks from engaging in "proprietary trading."

We have a fantastic group of panelists this afternoon who will be discussing the consequences of these and other provisions of the Dodd-Frank Act that change how banks and other financial institutions are regulated. Specifically, we've asked them to discuss how effective Dodd-Frank will be at solving the problem of instability of large financial institutions, what the likely unintended consequences of the Act are, and what was left out of the legislation that should have been included. These are obviously difficult questions to answer in part because the regulatory changes set in motion by Dodd-Frank are far from over. The statute itself delegates much of the specifics of the new regulatory regime to regulatory agencies, and I think it's safe to say - maybe Henry can back me up here - most of the rulemaking under the Act is yet to come. So perhaps we should agree to convene again here same time, same place next year and have the same symposium all over again to reevaluate.

So let me give you now a quick road map for this session. On the far end of the table is Larry White, who is our panel's resident academic financial economist. He's going to kick us off with about a 20-minute presentation, giving a primer on capital and leverage and some of the other overarching economic and financial issues related to prudential regulation as well as his own views on the merits of the Dodd-Frank Act. Larry is the Arthur E. Imperatore Professor of Economics at NYU's Stern School of Business as well as deputy chair of the Economics Department at Stern. His research focuses on, among other topics, the regulation of financial institutions.

We'll then turn to our four distinguished legal panelists, three of whom are in private practice, advising many of the world's leading financial institutions, and one of whom is the General Counsel of the Federal Reserve Bank of New York, which was, of course, a central player in the government's response to the financial crisis.

I would venture to guess that if you listed the ten most important transactions or regulatory actions taken during the financial crisis, one or more of our panelists was personally involved and most - I'm making this up, I don't know if this is true - but most, perhaps all of those ten. We're most fortunate to have them. And to preserve time for our substantive discussion among the panelists, which will follow their opening remarks, they're going to make very brief five-minute opening

remarks, sans PowerPoint - just their views about what the important issues are under our theme.

Let me introduce them now. Briefly, to my left is Tom Baxter. Tom is the General Counsel and Executive Vice President of the Legal Group at the Federal Reserve Bank of New York. He also serves as Deputy General Counsel of the Federal Open Market Committee. To his left is Rodgin Cohen of the law firm of Sullivan & Cromwell, where he is Partner and Senior Chairman. The primary focus of his practice is regulatory acquisition, corporate governance and securities law matters for major banking and other financial institutions. To his left is Richard Kim. Richard is a Partner in the law firm of Wachtell, Lipton, Rosen & Katz, where he focuses on representing banks, thrifts, insurance companies, and other financial institutions. To his left is Annette Nazareth. Annette is Partner in the Washington, D.C. office of Davis Polk. She advises clients across a broad range of securities' and derivatives' regulatory matters. And prior to joining Davis Polk, Annette served as a Commissioner on the Securities and Exchange Commission from 2005 to 2008.

So after our panelists introductory remarks, we'll then turn to a moderated discussion. I'll kick that off with some broad topics to follow up on their initial remarks, and then I'll open it up to you all to ask further questions. So with that as the introduction, Larry?

PROFESSOR LAWRENCE J. WHITE: I'm very pleased to be here. [SLIDE #1] I want to provide a quick primer on capital and leverage. I'm taking some risks here. First, some of you may understand all of this already. Second, I'm going to be using a few accounting examples; and when I say the word "accounting," and some people in the audience may decide that it's time to check their email, bring out their Blackberries. Please don't bring out your Blackberries. This is going to be useful even if you already know it. Maybe it can help you explain it to your son or daughter who's a romance languages major at the University of California, Berkeley, and comes home and says, "Hey, what's all this stuff about?" Or maybe it's your Aunt Nancy or your Uncle Bob. This is going to be useful.

[SLIDE #2] Because at the bottom of everything was our mortgage system, I can't not show you this slide: "The shapers of the American mortgage finance system hoped to achieve

the security of government ownership, the integrity of local banking, and the ingenuity of Wall Street. Instead, they got the ingenuity of government, the security of local banking, and the integrity of Wall Street." David Frum, as you probably know, was a speechwriter in the first term of President George W. Bush, and this quote explains why he was a speechwriter and I'm not.

[SLIDE #3] The next slide shows that, at least since 1976, "follow the money" has been an important theme; so we will follow it.

[SLIDE #4] Since I'm a business school professor, I've got to tell you what I'm going to say; then I'm going to say it; then I'm going to tell you what I said. Here is the slide with my overview.

[SLIDE #5] Now for the primer itself.

[SLIDE #6] Capital: First, what it isn't. In the first bullet, the "K" in the equation - that's an inside joke for economists. But please understand: Capital is not cash; capital is not money; and capital shouldn't be confused with liquidity, even though you will read such confusions in the newspapers. Even places like the *Wall Street Journal* or the financial pages of the *New York Times* get this sort of stuff wrong.

Capital is approximately net worth or owner's equity, which means that it's the arithmetic difference between the value of the assets and the value of the fixed liabilities.

[SLIDE #7] Why is capital important? Because these are corporations where the owners are protected by limited liability; once their net worth, their owner's equity, has been exhausted, the owners can walk away. Consequently, the capital, the net worth, the equity is really a cushion or a buffer that protects the liability claimants. It's also a risk deterrent because the owners have more to lose. And lenders (remember that the depositors in a bank are the lenders/creditors to the bank) should always be worried about the adequacy of the capital of the institution to which they have lent.

That last bullet, about market value accounting, is very controversial. I'll be happy to come back to it.

[SLIDE #8] Leverage: Leverage is the ratio of assets to capital. It's the inverse of a capital-assets ratio. Remember that capital is approximately net worth or equity. I will show you some simple examples of leverage, and you're going to see that it's

exactly the same idea as most of us learned in high school with planks and fulcrums and the short end and the long end - the same idea is at work here, which is why it's called leverage. In Great Britain they call it gearing - again, it's the same idea as we learned in high school.

[SLIDE #9] Though I'm going to be talking primarily about financial firms, to really fix ideas I want to start someplace else: with a typical industrial company. Everything is stylized to 100 in assets: the plant, the equipment, the cash in the till, money that is owed to the company, that's all wrapped up in that 100. The 60 are the fixed liabilities: money it owes to banks, money it may owe to bond holders, accounts payable that it owes to vendors, etc. And then by simple subtraction, what's below that dotted line is the company's net worth or owner's equity.

We would describe this as a company having a ratio of equity to assets of 40%: 40 over 100. The leverage is $2^1/_2$ to 1: 100 divided by 40.

[SLIDE # 10] To see the power of leverage, imagine that the value of the company's assets increases by 10: 10%. The plant increases in value; or the company has earned profits and has plowed those profits back into the company. For whatever reason, the assets go up by 10, up to 110. That's a 10% increase. What I've just described hasn't changed the fixed liabilities. The company still owes 60 to the bank, to the bondholders, etc.; but by subtraction the net worth has gone up from 40 to 50. The difference is the same 10; but in percentage terms, that increase in equity is a 25% increase in equity brought about by a 10% increase in the value of the assets. 10%, and 25% - exactly the same as that board and fulcrum that we learned about back in high school.

[SLIDE #11] Leverage can also work in the opposite direction for this company: if assets decrease by 10%, net worth goes down by 25%. So leverage works both ways. That's a terrifically important lesson to remember.

[SLIDE #12] Now let's talk about banks: Again, assets are stylized to 100; and remember, the assets of a simple bank are the loans that it has made. Why are those assets? Because the bank expects to get paid back with interest. So the loans are its assets. Its primary liabilities are its deposits. Why? Because the bank is liable to the depositors. From the depositor's perspec-

tive, a deposit is an asset; but from the perspective of a bank, it owes the money to the depositor, so the deposits are the liabilities. And again, by simple subtraction there's 8 left over: This is net worth, owner's equity; and now we're in the realm of financial institutions, and this net worth is what the financial institution world and the regulatory world (as a first approximation) call "capital."

Notice that capital is much thinner for this financial institution than that of the industrial company - it is only 8%. Turn it upside down, and the leverage is now 12½ to 1.

[SLIDE #13] Again, we can see this leverage at work: Let the value of those loans go up by 10, up to 110, a 10% increase, and the owner's equity has gone from 8 to 18. That's a 125% increase in the value of capital brought about by that mere 10% change in the value of the assets. That's the "magic" of leverage. Sometimes it's called "juicing" returns. Well, it's all about leverage.

[SLIDE #14] But again, of course, leverage works in the opposite direction. Here, if assets decrease by 10%, this is now an insolvent bank, because the bank originally had only 8 of capital as its buffer against losses. It has inadequate assets to cover the value of its liabilities, and remember we are in the world of limited liability. The owners can walk away; they can say "aw, gee, sorry, tough luck, gee, bad business judgment" - and then it's up to the claimants, the 92, to somehow try to figure out how they are going to get their money back when there's only 90 there to satisfy their 92 of claims.

[SLIDE #15] Let me show you a few other things. Here's Fannie and Freddie; you'll be learning a lot more about Fannie and Freddie in the next session. But even at the best of times, Fannie and Freddie had only 4 of capital to support 100 of assets on their balance sheets, so it appeared to be 25 to 1 leverage. But there was also another 200 of mortgage-backed securities on which Fannie and Freddie had issued guarantees. So if you considered all of their credit risk, Fannie and Freddie were really leveraged closer to 70 or 75 to 1 rather than a "mere" 25 to 1.

[SLIDE #16] Now let's look at Lehman or Bear Stearns: They were even more leveraged: 33 to 1.

[SLIDE #17] To show you that I'm not making these numbers up, here are data for the 15 largest financial firms in the

United States as of year-end 2007: just before everything hits the fan. Here are their aggregate assets and their equity as a percent of assets. As you can see, those numbers are directly comparable to the numbers that I just showed you. Look at the bottom firm, number 15. That's Bear Stearns; they have almost $400 billion of assets, and they have only 3% net worth.

To me, the mystery in all of this is why anybody would lend money to Bear Stearns when there's only a 3% cushion. By year-end 2007, it was well known that Bear had major investments in dicey mortgage-backed securities that were very hard to value. Why would anybody lend to Bear? And yet they did. There were roughly $388 billion in liabilities - money that had been lent to Bear Stearns - with only a tiny cushion of protection.

[SLIDE #18] To remind you that leverage isn't only for corporations, here's what a typical homeowner looks like when he or she has made a 20% down payment in buying a home. That's 5 to 1 leverage; and [SLIDE #19] if he or she got an FHA mortgage, they're in Bear Stearns land, they're in Lehman land: That's 33 to 1. That's leverage, ladies and gentlemen.

[SLIDE #20] This is what an insolvent institution looks like. 20-plus years ago, I had to deal with the savings and loan debacle. I saw hundreds of institutions that looked just like this. The FDIC over the last two years has had to deal with close to 300 somewhat smaller banks that look like this: insolvent institutions. The assets are inadequate to cover their liabilities.

[SLIDE #21] Why is this important? [SLIDE #22] We have the legal framework of limited liability. The owners can walk away; and if an insolvent institution isn't covered by some kind of guarantee by the FDIC (for a bank) or by the implicit (and now much more explicit) guarantee from the Treasury behind Fannie and Freddie, then the creditors have to worry: "Am I going to get my money back?" That's the fundamental question of finance: Am I going to get my money back?

[SLIDE #23] One can then understand why fears of not getting one's money back could lead to runs and then to refusals to lend in the first place. We've all seen *It's A Wonderful Life*, where Jimmy Stewart tries to calm all of those depositors who want to get their money back because they're worried that if they don't get there first, somebody else is going to get 100

cents on the dollar and then they're going to be left with less. That's what a run is all about.

[SLIDE #24] In the crisis of 2008, there were all of those large financial institutions, with very thin capital levels. The thin capital levels meant that they were going to have difficulties absorbing the losses from those bad mortgages and bad mortgage securities. The uncertainties and fears about the inability of the financial institutions to absorb the losses, to still be able to make good on their obligations to their creditors, led to something that the U.S. had never seen before: runs on an investment bank. We'd seen runs on depository institutions; but the establishment of the FDIC in 1933 had basically put those runs behind us. We thought, "That's it. Runs occur on depository institutions, and we now have that fixed."

We hadn't seen runs on investment banks; we didn't think that it was possible. Well, it was, and that's what we saw in 2008: runs, and then the parties who had been lending to the investment banks getting their money back and not wanting to lend again, which led to the freezing-up of the financial sector.

[SLIDE #25] There are implications for prudential regulation. [SLIDE #26] Clearly, capital and leverage are important, which means that the measurement of capital is important - making sure that there's an adequate buffer to absorb the likely losses of a financial institution. There is the very controversial issue of: How do you do the measurement of capital? I'm a big believer in market value accounting. There are reasonable people who would and probably will differ with me on that. There is a major measurement issue of what to do when markets are thin; but there are ways of addressing that issue.

What we also learned from the experience of the S&L debacle was that early regulatory action really is worthwhile - at least, I thought that we had learned this lesson. As it turns out, we did learn it for a while, and but then we forgot. Consequently, alas, leading up to the recent crisis we had regulatory actions that were far too little and far too late.

[SLIDE #27] Another implication is that prudential regulation needs to be expanded beyond the areas (banks, insurance, pension funds, money market mutual funds, the GSEs) where we've had prudential regulation up until now. Prudential regulation is clearly quite important for preventing runs and also for protecting unsophisticated claimants.

An important lesson of the crisis was that there are other institutions besides these categories that can be subject to runs. There are big investment banks. There's GE Capital, which wasn't in any prudential regime. There was, as we heard this morning, the AIG holding company, which was nominally regulated by the Office of Thrift Supervision but not very well. There were bank holding companies that were nominally regulated by the Federal Reserve - sorry, Tom - but not very well. That whole area needs to be tightened.

[SLIDE #28] Overall, the key elements of prudential regulation start with better, larger capital requirements. Those capital requirements must be based on risk. We need to do a better job of measuring risk, and we need to include some form of subordinated debt or contingent capital as an additional element in the capital structure, in addition to equity.

If we're going to be requiring capital, we have to have some notion of risk. Further, if we can't figure out the risk of an activity in a way that allows a sensible capital requirement, then that activity shouldn't be part of the prudentially-regulated entity.

If we're going to be dealing with risky institutions, we have to satisfy ourselves that the management of the institution is competent. This is routine for the prudential regulation commercial banks. You can't get a license - you can't get a charter to open up a bank - unless you have demonstrated to the regulators that you have competent management and that you have a sensible business plan, as well as having capital.

We need to monitor the financial flows between the regulated entity and its parent, whether the parent is a holding company or just a bunch of private owners, because it's too easy to drain funds out of the regulated entity - it's way too easy; so we have to monitor those flows very closely. That's what Rule 23A and 23B of the Federal Reserve Act - as Tom would tell you - is designed to do.

We need lots of well-paid, well-staffed, well-trained men and women as regulatory examiners and supervisors.

And having a receivership structure for the resolution of insolvent institutions is important.

[SLIDE #29] Now let's turn to the Dodd-Frank Act. [SLIDE #30] In this context, I can't not remind you about the excel-

lent book on this topic that has been published by the faculty at the NYU Stern School of Business.

[SLIDE #31] First, what are the good things in Dodd-Frank? Well, the Act does endorse the importance of capital. It does expand the prudential regulation to large systemic financial institutions, although we still don't know exactly who will be covered. However, if there's any good candidate, it has to be GE Capital: With $600 billion in assets, how can it not be considered systemic and brought into some kind of prudential regime? The Act does expand receivership resolution authority, which is clearly a good thing. Lehman showed us just why bankruptcy is not an appropriate mechanism. And the other good thing is that the Act reduces the importance of the credit rating agencies.

[SLIDE #32] What are some of the not-so-good things in the Dodd-Frank Act? You'll be hearing more about Fannie and Freddie in just a little while, but it's surely outrageous that the Congress can pass major regulatory reform legislation and not deal with those (I was going to say 900-lb gorillas) $750 billion-in-asset gorillas each.

The Act expands the regulation of the credit rating agencies, which is a big mistake.

There's an absence of a tax on size as a way to deal with systemic risk, and that absence is a mistake. An early idea of the Obama administration was to have a tax on size, but somehow that got lost on the way to Dodd-Frank; I was really sorry that that got lost.

The Volcker Rule is a mistake because proprietary trading was basically not a cause of the crisis. The cause of the crisis was the "old-fashioned way" of going insolvent: making bad investments. It was not proprietary trading. The repeal of Glass-Steagall, which was the essence of the Gramm-Leach-Bliley Act, was not responsible for the crisis.

The freeze on industrial loan companies, which is also part of the Dodd-Frank Act (and which is near and dear to Rodgin's heart), was a mistake as well. Industrial loan companies, mostly chartered in the state of Utah, were a good thing. Alas, we're not going to see any more, and they will slowly die out. That's a mistake.

Finally, the effort to regulate debt interchange fees is a mistake as well.

So that's my list of the good things and the less good things in the Dodd-Frank Act.

[SLIDE #33] In conclusion, first, thank you very much for sitting patiently. I hope that it's clear that understanding financial institutions really is important; and at the heart, understanding capital and leverage is important. Good public policy depends crucially on these understandings.

Thank you very much for your time.

PROFESSOR BUBB: Great. Thank you very much, Larry. That was a little bit like drinking from a fire hose so we'll see if we can keep up the pace here. Goodness. So now we'll go to our legal panelists. We'll just go from my right to my left, starting with Tom Baxter from the Federal Reserve Bank of New York.

MR. THOMAS C. BAXTER JR.: I'm going to start by thanking New York University and Journal of Law and Business for the invitation to join you today. A very special thanks to NYU Law School 2L Audrey Stern and to NYU Law School 3Ls Sallie Kim and Jared Roscoe for doing such great work for us at the Fed over the last two summers. And, Audrey, you know we needed the help because the financial crisis did tax us like nothing else in my 31-year career.

I'm going to start with what I hope is a somewhat provocative and leading question today and that is the following: Is lending as a last resort really so bad? And my remarks around that question you'll appreciate are personal and you can't attribute them to the NY Fed or to the Federal Open Market Committee where I have official positions. So I'm going to be provocative with that leading question, but you'll understand I'm speaking personally.

Now I ask that question for a very specific reason and it relates to Title XI of Dodd-Frank, and I brought with me my pocket Dodd-Frank. [Holding Up Volume]

MR. BAXTER: Larry, you scare me when you say we should have addressed the GSE's in here too.

PROFESSOR WHITE: That's a great prop.

MR. BAXTER: But I want to take you to the back of Dodd-Frank and to Title XI because it's the start of addressing this hopefully provocative question, because in Section 1101 of Dodd-Frank you'll find a provision that restricts the ability of the Fed to use its lending of last resort powers under Section

13, subdivision 3 of the Federal Reserve Act. And in sum and substance, what 1101 says is it says the Fed can't lend to a non-bank to rescue it from bankruptcy or to take assets off the balance sheet of that institution. Fairly simple concepts in 1101. Let's apply them to some of the things we did during the crisis.

Bear Stearns. We created a limited liability company under Delaware law. We lent that company funds which it used to buy assets out of Bear, and that lending by the Fed facilitated the merger of Bear Stearns and JPMorgan Chase and avoided Bear Stearns bankruptcy. So it was a rescue operation. And you'll notice I use the word "rescue." I don't use the "B" word. First, I'm a polite central banker. And second, by the "B" word, I mean bailout. So I won't use that word, I'll use rescue, which I think is much more apropos. So we couldn't use 13(3) to do Bear Stearns.

What about AIG? We used Section 13(3) to lend to AIG on September 16th of 2008, and that avoided an AIG bankruptcy, ladies and gentlemen. It was a rescue operation to avoid a bankruptcy. Had that bankruptcy taken place, it would have taken place the day after the bankruptcy of Lehman Brothers. Think about that for a minute. We couldn't do that loan to AIG today because of 1101.

And then something else that gets little attention is the 13(3) arrangement we did with respect to Citigroup. We removed from Citigroup in November of 2008 the tail risk in a $300-billion portfolio. We did it along with the Treasury and the FDIC by making a commitment to lend under Section 13(3) to Citigroup in an amount up to $220 billion. That arrangement could not have been done under section 1101 of Dodd-Frank.

The lending powers of the Federal Reserve under Section 13(3) are restricted by Dodd-Frank, and you need to know that for a very particular reason because it changes the menu of available policy choices in the next financial crisis. Why did Congress do that? You might wonder, why did Congress take away those particular lending powers? They did it for a very particular reason. And the policy reasons were one, the unfairness of having institutions that are too big to fail. Institutions like an AIG or a Bear Stearns or a Citigroup. And they did it because of the corollary to "too big to fail," and that is moral hazard, the absence of discipline in counterparties that results

from a belief that the government is going to bail out those who are too big. So to change those policy choices, Congress, in 1101 restricted the ability of the Federal Reserve to do the kinds of loans we did during the crisis.

Now some people, and I hope there's no one in this room who's going to fall into this category, would say Congress did that because they thought the Fed did a bad thing in those rescue operations. And I hope to convince you that that's not true. It's not that the lending we did during the crisis was a bad thing because the policy choices we faced at the time were to allow those companies to go bankrupt, on the one hand, or on the alternative to fashion a rescue using our lending powers. And we decided to do the latter - to fashion a rescue because of the systemic consequences associated with bankruptcy. The essential choice with respect to Bear, with respect to AIG, with respect to Citi was a choice between bankruptcy on the one hand with all of the systemic consequences associated with that and on the other hand use of the lending power under Section 13(3).

Now ladies and gentlemen, that choice has changed with Dodd-Frank. And it's a huge and important change and you need to understand the change that has come with Dodd-Frank. It's come to address "too big to fail" and moral hazard, and it's come with a substitution of different menu items for the next crisis. And a couple of examples: First, Title I of Dodd-Frank creates a regime of enhanced supervision so the thought is in the future, the supervisors - and Larry mentioned a couple of supervisors in his remarks - will do a better job of supervising both banks and nonbanks, including nonbanks that are systemically important. They'll do it through enhanced requirements with respect to capital, liquidity, and risk management. I commend you to the senior supervisors' group report on risk management that came out in late December of 2010.

And it comes about through other prudential features of Dodd-Frank like the Volcker rule. So you have all of the enhanced supervision requirements in Title I of Dodd-Frank, and those exist for a very particular purpose and that is to avoid the kinds of problems we had to address during the recent financial crisis - institutions that were too big, too interconnected, too systemic, and that were on the precipice of

bankruptcy - and to avoid that through enhanced supervision. That's one tool.

The other tool is found in Title II of Dodd-Frank, and that is the orderly liquidation authority within Title II. The other piece to this is to give us an additional tool to the Bankruptcy Code for winding up institutions that are too big to fail, and that would be to use the orderly liquidation provisions within Title II. In other words, a substitute to the Bankruptcy Code - a different choice than we had during the crisis. So the important thing to understand about Dodd-Frank is that it changes the way we dealt with the last crisis and it sets up some important criteria for us to think about with respect to a potential future crisis. The tools would fall into the enhanced supervision category, and that's Title I, and the other important tool, which requires so much work now, relates to orderly liquidation authority in Title II.

I only have five minutes so let me come back to the question that I asked at the outset: Is there anything wrong with the use of lender of last resort powers? I want to convince you that the answer to that question is "no." That's not because we continue to have lending of last resort powers at the Central Bank. We don't have the same powers we had under 13(3) to be sure, but we have different powers under Section 10(b) of the Federal Reserve Act. Under Section 13(3), if the facility we create is for general market participants and not for a very specific institution or to take assets off a balance sheet of a single institution. And we have new lending of last resort powers with respect to financial market utilities in Title VIII of Dodd-Frank.

Well, I want to come back to this point about lending, and I'm going to come back to that point and refer you to the report that was issued by the Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) last week on the arrangement we did under Section 13(3) with Citigroup. And let me read you the conclusion in the report of the SIGTARP, who, by the way, was a 1995 graduate of NYU Law School. And I think you'll see the importance of this conclusion with respect to the provocative question I asked at the outset. Here's what the SIGTARP said: "Citigroup did not fail, and the global economy avoided the catastrophic financial collapse that many feared would flow from a Citigroup failure. And while the transactions hardly solved all of Citigroup's

problems, the government incurred no losses and even profited on its overall investment in Citigroup by more than $12 billion." So, ladies and gentlemen, that was the finding with respect to Citi. I can make the same statement with respect to AIG. You know we were fully repaid last week by AIG principal and interest on that loan we made on September 16th of 2008. And ultimately, we will likely be repaid fully, principal and interest, on the loan we made to the vehicle to take assets out of Bear Stearns and facilitate the merger with JPMC.

So the point is that the use of those tools accomplished our objective, which was avoiding the systemic consequences of bankruptcy, and from the point of view of the American taxpayer, the taxpayer profited on those loans. The downside of what we did relates to "too big to fail" and its manifest unfairness and to the corollary of the erosion in market discipline. But the important thing is - and with this I'll stop - is that you answer the question that Dodd-Frank is not saying what the Fed did during the crisis was a bad thing. Instead, what Dodd-Frank is saying and promising for our future are different policy choices for the next financial crisis - policy choices that will build on what we learned in this most recent financial crisis and will address the problems of "too big to fail" and moral hazard. Thank you ladies and gentlemen.

PROFESSOR BUBB: Thanks, Tom. That was very, very interesting and I think we'll be coming to those issues in the discussion that follows our panelists' presentations. Rodgin Cohen from Sullivan and Cromwell.

MR. H. RODGIN COHEN: It's a pleasure to be here with you today and particularly my distinguished co-panelists, and I would reiterate Tom's thanks to NYU for bringing together this entire program. Larry talked about the good and not so good of Dodd-Frank. Let me spend my five minutes on the good, the bad, and the ugly - and I'll start with the good - and one or two examples of each.

I would suggest that one crucial contribution of Dodd-Frank to reducing instability in the financial system is the special resolution arrangement, which Tom referred to, for systemically important institutions. Title II of Dodd-Frank is designed to enable the government to deal with the failure of a major financial institution without the unacceptable Hobson's choice which existed in 2008. As Tom indicated, the govern-

ment then had to choose between a massive taxpayer bailout and continuation of "too big to fail" or freefall insolvency with its potential severe impact on the financial system and the broader economy.

There's been a lot of criticism of Title II. Frankly, I find this difficult and I wonder if it's really understood. The principal criticism is that it didn't end "too big to fail." Well I don't know what more Congress could have done or should have done. In the event that you have systemically important institution going into this special resolution program, here's what Title II requires: the institution's shareholders are wiped out, management is replaced, and creditors are responsible for the losses. Moreover there is no option for liquidation. A normal corporation has the potential of rehabilitation under Chapter 11 of the Bankruptcy Code. For a financial institution, you're gone.

Let me turn to the other side. The argument is also made that Title II fails to reduce the systemic consequences of a failure. Well, I think that ignores what it actually does. There are very sound provisions here. The FDIC can set up a bridge company to stabilize the institution and enable it to be sold or wound down in an orderly manner that maximizes value. Liquidity is available from the Treasury. There can be prompt creditor repayment at estimated recovery rates. Creditors are assured of a recovery of no less than they would have received in a Chapter 7 Bankruptcy liquidation, and a number of key Bankruptcy Code arrangements are incorporated which should help prevent a run, such as a preference clawback and a provision which voids debt acceleration clauses, and qualified financial contracts are treated quite similarly. So in summary on this point, creditors can no longer assume that the government will ride to the rescue but they do have an effective mechanism to eliminate or at least limit their losses.

If I'm going to pick one bad item, it would actually be what Tom referred to, and that is the change in 13(3) of the Federal Reserve Act. I agree there are many other options now but as a general matter, I think that supervised optionality is a good thing in dealing with crises.

The ugly: these are the unintended consequences, or, maybe in some cases intended, consequences, of Dodd-Frank. You have the Lincoln Amendment which discriminates against

foreign banks. You have the Tester Amendment which threatens to take the FDIC assessment basis, which has been risk based for 19 years, and remove it from its risk-based mooring. And you have the Durbin Amendment which threatens to stick the American consumer with $12 billion each year in fees and less services.

But the most pervasive unintended consequence of Dodd-Frank is the promotion of the shadow banking system. This is strange because the financial crisis started in the shadow banking system, the mortgage bankers, and the swap affiliates of a handful of insurers. And it started there in large part because of the absence of regulation and transparency. Yet Dodd-Frank and its progeny will drive financial activities into the shadow banking system and create risk for the financial system as a whole.

The activities that Dodd-Frank forbids for banks or makes it uneconomic to continue, they're not going to disappear. They are going to migrate to the shadow banking system where they will continue but this time without regulatory oversight, control, or transparency. And I think I will stop at that point.

PROFESSOR BUBB: Thanks so much. Look forward to following up on many of those issues in the discussion.

MR. COHEN: Thank you.

PROFESSOR BUBB: Richard Kim.

MR. RICHARD K. KIM: Thank you. It's a pleasure to be here. I'm going to spend my five minutes talking about the effectiveness of Dodd-Frank and an unintended consequence because I've been told I can't talk about the New York Jets, but. . .

So I will begin by saying that, in evaluating Dodd-Frank, I start with the premise that the political process today makes it virtually impossible to enact coherent comprehensive reform of our financial regulatory system. And Dodd-Frank is an unfortunate example of this. Understandably, there continues to be a significant amount of resentment toward Wall Street for the recent financial crisis, which has been compounded by the perception of outsized and unjustified compensation packages. Then if you add to that that Dodd-Frank suffered from the election cycle, politicians looking to foment and capitalize on populist anger; that financial regulation can be compli-

cated and highly technical; the level of influence of the financial industry in Washington; and that Dodd-Frank was rushed to enactment in a deliberation process that took a few short months, and even then episodic bursts of all-night working sessions, when it should have taken a year or more - it's not surprising that you end up with an act, parts of which just don't provide any real benefits, and some parts don't make any sense at all.

Now I'm not in the camp that's advocating that Dodd-Frank ought to be repealed. There are portions of the Act that are good and they were a long time coming, and there are improvements that have been made to the U.S. regulatory system. As for how effective it will be, I think the U.S. financial regulatory system will be significantly tougher and in many ways better, but ironically, I think it's going to happen not because of Dodd-Frank but because of the regulatory reform that occurred even before Dodd-Frank was enacted.

One thing you don't hear a lot about is that after the financial crisis occurred in 2008, there's been a really profound and lasting change on the perspective of the financial regulators. Immediately following the financial crisis, in 2009, I certainly found, and my clients have certainly found, that the bank regulators significantly raised the bar for U.S. banks. A large number of banks were immediately downgraded - you know they're rated on a scale of one through five - and there's been a dramatic increase in the number of enforcement actions. Banks are feeling pressure as a result more than any time that I can remember to sharpen their management and their board, strengthen their capital and liquidity, do stress testing, and improve risk management. All those things are happening now in a very pronounced way.

On top of that, we have regulators that are also being far more assertive than I've seen before in pressuring banks to raise capital and to also initiate a process to sell themselves if they can't raise capital. So you're seeing that as well and to add to that pressure, you've got the FDIC in the background taking a much more aggressive posture in launching investigations and filing suits against boards and managements of failed banks. So all of this taken together is resulting in banks raising an unprecedented amount of capital and forcing weaker banks to sell themselves to stronger banks and in effect healing weakened parts of the financial services system.

As for unintended consequences, there's a lot that's been written about it and I'll just focus on one. One of my big concerns is that very little consideration was given to preserving the competitiveness of U.S. financial institutions vis-à-vis non-U.S. financial institutions. Dodd-Frank significantly hampers the ability of U.S. financial institutions to compete abroad. I think more acutely it puts large foreign banks and foreign financial institutions at a relative advantage to large U.S. financial institutions in expanding in the U.S. If you go through the bill, sprinkled throughout are caps on growth, economic disincentives on size, but the way they work, the way they're calculated, they bite much harder on U.S. companies than they do on foreign companies operating in the U.S.

This past year, this past month, we've seen large foreign banks making sizable acquisitions in the U.S. In the last four weeks alone, Toronto Dominion bought Chrysler Financial, Bank of Montreal bought Marshall & Ilsley, and just today ICBC, China's biggest bank, for the first time bought a majority interest in a U.S. bank. So my concern is that the trend is here and Dodd-Frank will work to accelerate it. But that's it for my five minutes.

PROFESSOR BUBB: Terrific. Look forward to discussing those. Annette Nazareth.

MS. ANNETTE L. NAZARETH: Thank you so much. Thank you for the invitation to be here today. This is a timely discussion because we're at just about the sixth month anniversary of Dodd-Frank's passage, and obviously, as we all know, it was absolutely unprecedented legislation, bringing about the biggest change in financial regulation since the 1930s. And while I don't have Tom's prop, I think the 2,300 pages is really quite impressive. You know we were asked to speak a bit about what we thought was good about the Act and where perhaps some of the parts were concerning.

I think that the focus on systemic risk was probably the most important element and the keystone of the Dodd-Frank Act. As you know, the regulators previously looked at institutions individually rather than financial markets as a whole, and I think that it became apparent after the last financial crisis that the financial system had inherent biases toward booms and busts and that was amplified by the highly interconnected nature of the financial institutions and the market. So it really

was critically important to be able to focus on systemic risks, both to identify them and to develop appropriate responses to strengthen the resilience to the system and to avoid similar crises to the fullest extent possible.

But again, the devil's in the details. Identification of the system risks is key. I was taken by Tom Baxter's point that to some extent we've taken away some of the tools if we get it wrong so identifying the risks and then being able to respond to them becomes even more important. And again, that is very much imbedded in Dodd-Frank.

One of the issues that's raised is really how do we identify these risks. And a lot of the ways that is handled in the bill is both by enhancing supervision of the largest banks and systemically important financial institutions, and having all manner of not only heightened supervision, but far greater data collection. And in a key part of the legislation that often is somewhat ignored is this creation of an Office of Financial Research, which will now have the ability to collect financial data and to require the submission of financial data of uniform formats that hopefully will provide a very powerful tool to be able to oversee what is occurring in the financial system and to potentially identify trends that may be concerning.

But again, much of what I assume regulators will be looking at will be based sort of backwards on what we've experienced before. It's really going to be incumbent on supervisors and others to be thinking more creatively about what will be the cause of the next crisis.

The other important issue is what are the tools that are actually going to be implemented once we identify what these systemic risks are, and that really is an emerging area. When you think about it, the bill doesn't really address that, and we now have a Financial Stability Oversight Council that must get together and say okay, now what do we do? There's a recent Group of Thirty report called *Enhancing Financial Stability and Resistance* that takes a stab at what some of the tools might be that supervisors could use once they do identify risk. They talk about things like tools to address leverage, such as increasing capital requirements against trading books or capital multipliers reflecting systemic importance of certain institutions. They obviously talk about stress testing, which has become ever

more important. They also talk about means to enhance liquidity, such as liquidity buffers.

And there's also been a renewed and, I would say, greatly enhanced focus on the extensions of credit and leverage and on supervision of market infrastructure and business conduct. And you see that quite a bit in Dodd-Frank. Not only do you see supervision of market infrastructure such as was referred to with clearance and payments systems and the like, but also we have a whole business conduct focus both in Title IX with a tremendous number of new regulations that the SEC is supposed to implement, but also Title X, which is focused on consumer protection and puts all of that activity in a single agency with a much heightened focus on that than was heretofore the case on the federal level.

I think another good outgrowth of the Dodd-Frank bill is that I do believe there is going to be much greater international coordination and cooperation among regulators because obviously, the markets are international and just focusing within our borders is not going to in any way enable us to address systemic risk. So you see a very invigorated G20 and International Organization of Securities Commissions (IOSCO) as well as a really robust and very important Financial Stability Board that brings together supervisors and regulators from across the globe.

I do have some opinions on what some of the challenges and open issues are - it sort of goes without saying that implementation here is key. All of these best laid plans only work if the human beings who are charged with implementing it actually get it right, and we just all have to hope on that one. I do think that there were some real missed opportunities. I think, and I've said this before, that the structure of financial regulation continues to be flawed and that this was very much a lost opportunity to rationalize the structure of financial regulation, and I do think that structure could matter. The fact that we have so many agencies and that so much cooperation and coordination is required in this legislation, I think, continues to be a problem and again, we'll see whether that is possible but I do worry about that. There certainly, as Mr. Kim and others mentioned, there're a lot of problems with overkill in the legislation, the political process sort of run amok with Christmas tree ornaments of amendments, including unfortunately,

things like the Volcker Rule, which I think many of us find to be very problematic.

I have to say also that I noted with some interest the President's op-ed piece this week that talked about the need for balanced regulation. I wish that had been written about eight months ago, but that brings me to my final concern, which is that when you do have regulation that is in some respects - and I think this will be the case in this bill - overly restrictive, overly prescriptive, you get backlashes. And the backlashes result in a general sense that regulation doesn't have value.

It undermines the regulatory process, and that's a process which I have a great amount of belief in, so I worry that it leads to booms and busts in regulation. So I do worry that to the extent that some of the flaws in this legislation are not addressed, that we could end up with going back to calls for much greater deregulation and have the wild swings that we have experienced in the past. That's all I have to say.

PROFESSOR BUBB: Great, thank you very much. So many issues to talk about, so little time. We have only about - I guess we have 40 minutes. So let's start the next part of our discussion with a fact that Larry threw out, which was his list of financial institutions and their leverage, the amount of capital they had. It was sort of a striking list, some striking statistics. Has that always been the case, or was there a trend toward less and less capital, more and more leverage? And what was the role of prudential regulation during that process?

Maybe, Tom, maybe you could speak about the prudential regulation aspect of that. Should we be thinking, oh, my goodness this is what caused the financial crisis, too much leverage? Where was the Fed? Where were the other banking regulators?

MR. BAXTER: Well I think if you look back over the history of financial crises, you'll find that leverage is a key piece in almost all of them. And that's frequently the case because crises are usually associated with some kind of asset bubble, and bubbles are usually closely associated with leverage. If only it were as simple as to blame the crisis on leverage, we could focus our attention and hope to never repeat what we endured during 2007 and 2008, but it is not that simple.

I think that part of the lesson of the crisis is to think about some underlying causes and then to think about amplifiers of

those problems, and leverage can be an amplifier. But let me toss out another way to look at things, and that is if you get down and study the crisis we've just come out of, you can certainly focus on the subprime space. And if you focus on the subprime space, you might look at the dimension of the problem in subprime and say, well, I don't understand why we had a crisis.

But if you think about some of the amplifiers of the crisis, like our securitization machine where many of those subprime loans were absorbed into securitization vehicles and securities were issued backed by the underlying subprime loans, and then you think about some of the other amplifiers, like credit default swaps on those securities, then you start to understand some of the amplifiers we experienced during the crisis that took some underlying problems that arose from perhaps deficient regulation because the underwriting practices eroded.

But it's not that simple, and you have to think about some of the erosion in discipline but you also have to think about how those problems can be affected by amplifiers we create in our financial markets. And that's, in my view, what makes the challenge of identifying systemic risk so great, and I agree with Annette that this is one of our greatest challenges - identifying the sources of systemic risk. I think that some of the promise in learning from the last crisis is to understand better the relationship between certain underlying problems and what I'm calling amplifiers because we need to understand those relationships to try to get ahead of the problem for the next time.

PROFESSOR WHITE: Let me jump in here. There was, even as recently as 2003 - I wish I'd brought the data with me - those same 15 firms as of the year 2003 - the big difference between 2003 and 2007, those five big investment banks were a lot smaller in 2003 and had more capital. Over the space of four years, they grew substantially and they thinned out their capital. To me, the major story if you want the narrative of what went wrong in 2007, 8, 9, the narrative is that we had five big investment banks, as you saw. Three with trillion-dollar balance sheets and the other two with $700 billion and $400 billion each, and we had a big bank holding company, Citi, and a big insurance holding company, AIG, with the latter writing those trillions of dollars of contracts of credit default swaps, and they don't have enough capital. To me, that is the story;

that is the narrative. And it got worse over the period from the end of 2003 to the end of 2007.

PROFESSOR BUBB: That's a nice segue into another issue that was brought up by the panel. Rodgin, you mentioned the growth of shadow banking. I understand the funding scheme for many of these investment banks relied on what's now referred to as the shadow banking system of short-term credit, asset-backed commercial paper, repo, the repo market, and that for example, the fall of Bear Stearns can be thought of as essentially a run on repo where the repo lenders withdrew - they refused to roll over their debt. It sounds like, Rodgin, you're pretty pessimistic on the effect of Dodd-Frank on addressing the problems in the repo market or the shadow banking system. Rodgin, could you expand on that a bit more?

MR. COHEN: Be glad to. I'm actually not a pessimist and my remarks may have been weighted too much to the ugly because I think all in all Dodd-Frank is a definitely progressive step. But Dodd-Frank does not necessarily get at the shadow banking system, and as I indicated, may enhance it. This is going to depend heavily on the Financial Stability Oversight Council, and Annette brought up a very important point about the Office of Research there to pick up on these problems. A huge issue was that no one realized how much in CDS existed; no one realized where the exposures were, so we need the information. What I was really trying to do more than sound a pessimistic note was to send a warning signal - this is where the problem started, and we've got to make sure it doesn't repeat itself.

PROFESSOR BUBB: Are there any provisions of Dodd-Frank that we can expect to prevent the liquidity crisis that happened in the repo market in the future? Is there anything you can point to that gives you reason for optimism?

MR. COHEN: Absolutely. Title I with the heightened regulatory supervision refers specifically to liquidity. There are flaws in Basel III's liquidity requirements, but all in all the general thrust is the right way to go. I think there will be a lot more care devoted to liquidity because at the end of the day, as you pointed out quite correctly, banks fail because there is a run, which is a liquidity issue, not a capital issue. Capital is a contributor, but it's ultimately a liquidity issue.

PROFESSOR WHITE: Rodgin, this is where I've got to throw the papers up in the air and say, "I don't get it." Yes, there was a liquidity issue because these guys didn't have access to the Fed. The Fed had to jump through all of the hoops that Tom just described a few minutes ago. Now they're all bank holding companies; they have access to the Fed. The Fed is a lender of last resort; that is its job: to provide liquidity. Quite honestly (I realize I'm in a tiny minority here), I don't get all of these concerns about liquidity now that all these guys are bank holding companies and have access to the Fed. I don't get the concerns about liquidity.

MR. COHEN: Well, let me at least try - I mean the Fed, as Tom pointed out, is now circumscribed in lending to any entity within the bank holding company other than the bank itself, and there are huge assets and liabilities in these holding companies which are not directly in the bank. So as I said, I think the change in 13(3) was unfortunate. It came in for a very different reason, but the idea was to provide flexibility to deal with crises.

MR. BAXTER: If I could jump in on this, I think that we're focused now on a very precise topic, and that is the topic of liquidity. Liquidity was clearly a problem, but the problem is actually broader than that. The problem we encountered in September and October and November of 2008 was a complete crisis of confidence. Liquidity was one aspect of that.

And it arose in September and I know my colleagues on the panel lived some of this as did I, but September started with the conservatorship of Fannie and Freddie. The second week we had what we at the Fed call Lehman weekend. Lehman weekend ended with Lehman's bankruptcy on Monday morning, and then on Tuesday we had AIG. On Wednesday we had the Reserve Fund. On the weekend after Lehman weekend, Goldman Sachs and Morgan Stanley became bank holding companies, something that some in their management swore would never happen.

We had the most unbelievable month in September of 2008, I think, in the history of American finance. And it arose for a whole host of different reasons, but fundamentally, what was going on was a complete loss of confidence in the American financial system, and that's why there was a run on the weaker members. There was a run on Lehman in the week

leading up to Lehman weekend, but there also was a run on Merrill Lynch and all the investment banks which were funded with the wholesale model. But don't think of it in terms of just liquidity. What we had going on was a complete loss of confidence in the American financial system, and that's what called for the dramatic action that was taken by very courageous leaders at the Treasury Department and the Federal Reserve. I'm speaking as a lawyer - I'm just a lawyer - but thank God for Chairman Bernanke and for now Secretary Geithner because what we were looking at in that particular time was a complete loss of confidence in our financial system.

PROFESSOR BUBB: Let me go back to an issue that Richard raised, which was the international aspect of financial regulation. You suggested that U.S. financial firms are at a competitive disadvantage after Dodd-Frank vis-à-vis for example, European banks, and other banks around the world. This strikes me as a structural problem where the home country, which has an interest in increased stability - there'll be a race to the bottom essentially if they create a stable system but the result is that business moves offshore. How can that be addressed? Should, for example, Dodd-Frank or the legislative process have waited for something like Basel III to get further along or other international mechanisms for coordinating prudential regulation, or can you expand on ways around the structural problem you identified?

MR. KIM: I think one of the problems with Dodd-Frank is when you rush something like this, you're prescribing the medication before diagnosing what's wrong with the patient to begin with. In crafting Dodd-Frank, the underlying premises as to what was wrong with the financial services system, I think, were in many ways incorrect. And there was an extreme moment of populism and a sentiment that big is bad - big institutions cannot be allowed to grow any bigger; if anything, we should stick lots of incentives in there to make them shrink, and they're in Dodd-Frank. For the first time ever we now have this concept of differential regulation that says that as a bank grows bigger, the Fed is supposed to toughen capital requirements. It used to be the same capital requirements for everybody; it's not anymore. As an organization gets more complex, capital requirements also have to go up.

So it's all different, and then on top of that you've got hard caps. Since 1994, we've had a national deposit cap that

says that no bank can hold more than 10% of FDIC-insured deposits. Now we also have a 10% liabilities cap. No financial company can hold more than 10% of the financial liabilities in the U.S., which is just impossible to calculate for a lot of technical reasons so there's that problem - you can't do it.

But if you put that aside, if you look at a U.S. financial company, if they acquire a bank in South America, it all counts toward this 10% liabilities cap even though they're not making an acquisition in the U.S. because the cap limits the size of the U.S. companies on a worldwide basis.

If, on the other hand, you have a foreign bank coming into the U.S., this liability cap just applies to U.S. operations of the foreign bank so you could have a gigantic foreign bank coming in and buying a large U.S. bank and all that counts toward that 10% cap for the foreign bank is their U.S. operation, so everything's skewed against the big U.S. banks. I see why that is; it was a popular thing to do at the time. I think people hate big banks. My mother still does so I get all that. I think we're going to look back one day and we're going to wonder what happened.

MS. NAZARETH: One of the other interesting things, because we did move so quickly, was that we really showed our hand internationally. We locked ourselves in with a pretty strong bill, and it does give, I think, our international counterparts the ability to pick and choose the best, to be somewhat more measured in parts, and those regulatory arbitrages will make a difference. They will result in some businesses going offshore as a result.

MR. COHEN: I may depart a little bit from my colleagues here. There are many defects obviously in Dodd-Frank and there is this potential significant regulatory disparity, but I do not think the United States should have waited. We had to lead by example. Had we waited, we would never have had financial reform legislation anywhere, and we do have the ability to adjust, but we needed to exercise this leadership role.

PROFESSOR BUBB: We're running out of time. Why don't we open it up now for questions from the floor? We should have some microphones so I'm going to call on folks in the aisle right here, and wait for the microphone to ask your question.

AUDIENCE MEMBER: What I actually wanted to ask in the last session was, we were talking about some of the advantages of Dodd-Frank, and actually I have three parts to my question. The first one is -

PROFESSOR BUBB: Let's just do one in the interest of more people asking.

AUDIENCE MEMBER: I'll talk fast. The first one, is Professor Hu gave an example about one of his staff members not being able to take a train. In the constant cries for smaller government, how are we going to fund all the supervision that is allegedly going to make sure that the excesses don't happen again? Second, we have congratulatory remarks for Chairman Bernanke and Secretary Geithner, but we also have - I think we're running on 18% unemployment when you take more into effect, so it's very nice that we saved the banks, but what did we save them for?

And then the third thing is we still have large banks that have even more assets than they had before, and so this "too big to fail" complaint that Dodd-Frank was allegedly supposed to address has still left banks like Wells-Fargo and JPMorgan and Goldman Sachs in charge of a lot of stuff, and who's to say that in the absence of regulation we won't run into exactly the same crisis again? And all at the same time, we have a million foreclosures coming up in the next two weeks.

PROFESSOR BUBB: How about this? I'll take an initial stab. We could fund it through seigniorage, which is an underappreciated revenue mechanism - we'll just print money, you know? Right, Tom? Don't you guys have that capacity - no, I'm just joking.

MR. COHEN: Well, I don't mind venturing into the lion's den. What I would like to question is whether, and it's a point Richard raised, big is bad? Is it more risky? The historical evidence does not support that. If you look at the two countries with probably the most concentrated banking models, Canada and Australia, their banks came through the financial crisis probably better than their counterparts anywhere else in the world. The hundreds and hundreds of smaller banks that Larry referred to that failed - that wasn't because they were big, it was because they were insufficiently diversified. And Richard was referring to this as well - I think we have to get

away from the concept of big as bad and figure out how we regulate the problems which occur because you are big.

PROFESSOR BUBB: Quick, let's get another question. Over here on the right.

AUDIENCE MEMBER: Hi, it seems to me that the issue is not so much the regulation of the banks. I really don't think the federal government needs to spend billions and trillions of dollars babysitting these banks. It seems to me the real issue is the creation of new asset classes. When we have private industry that's primarily responsible - is primarily focused on profit-making, creating new asset classes without much supervision from the federal government from the public perspective, that seems to me to be the real issue. So what is it that Dodd-Frank does to regulate the creation of new asset classes?

MS. NAZARETH: Well, certainly the Act provides for greatly heightened supervision, and I think we're seeing that already - as was mentioned earlier. Even before Dodd-Frank passed you saw much heightened supervision on the part of regulators. I think there's also obviously more focus on credit rating agencies. A lot of these asset classes were mispriced; the risks weren't comprehended appropriately. So I think the capital rules will be different. I think hopefully the riskier the assets, the higher the capital charges. Hopefully, we'll get that right in the future so I certainly think that the bill addresses issues such as that.

PROFESSOR BUBB: Here on the left.

AUDIENCE MEMBER: Thank you, Mr. Bubb. I'm a 2L at the Law School and my question is directed to Professor White. We talk about prudential regulation of financial institutions, and one of the things that's sort of common about all these things is that they're all sort of top-down. We're going to look at the institution's capital ratios, we're going to look at the institution's practices and funding mechanisms, and so forth. I was wondering if you could talk about whether the business schools in the United States have a responsibility to institute some bottom-up standard of professional ethics for the investment bankers that end up collateralizing these debt obligations and swapping these default credits and whether there's an element of - Stephen Green, who was the chairman of HSBC talks about how you can prudentially regulate a financial institution but you can't regulate prudence and ethics. I

was wondering if you had some insight about that or any of the other panelists could talk about that.

PROFESSOR WHITE: The last thing I would do would be to speak for the other however many hundred business schools in the country. I can tell you that at the Stern School we have a required course in professional responsibility in the second year of every full-time MBA's course structure and for our large part-time program toward the end of their course sequence - so hopefully, the lessons are firmly embedded in the cortex somewhere. This is a course in professional responsibility where we do deal with ethical issues, and we want our students to be thinking really hard about these issues. We can't stamp and force them into some particular mode. These are adults: 26, 27, 28 years old. They've done a lot of stuff before they get to us, but I think that we do a pretty good job of getting them to think and think hard about these issues. I'm not sure that one can do much more, but I'd be happy to hear what law schools do.

PROFESSOR BUBB: We do a fantastic job.

PROFESSOR WHITE: I'm sure you do.

MR. COHEN: I agree with Larry fully that there's a limit on how much you can instill ethics in individuals, but I would note one thing that has happened which can be helpful here - not on ethics but at least bounding greed - is the compensation guidelines developed by the banking agencies. They are not limited to the five top executives but rather are pervasive throughout the institution for anyone who is in a position to put the institution at risk. So if you can't regulate ethics fully or maybe not at all, at least you can regulate avarice.

One other point, which I failed to make in answering a question a few moments ago, I do think that a failure in Dodd-Frank, or the whole approach, is to regulate heavily and starve the regulatory agencies. This is becoming a gigantic problem, and an immediate emergency appropriation is necessary if we want these agencies to do their job.

PROFESSOR BUBB: I'm just going to follow on to the question. The Financial Stability Council which was created by Dodd-Frank had a meeting just this week, and I was intrigued to see that one of the tools they adopted - I think it was in the Volcker Rule study or guidance - had to do with the CEO of banks personally certifying that there's a control system in

place for proprietary trading. I may be misremembering. Is that sort of approach effective? What do the lawyers think? Having counseled clients who have to make these sorts of certifications, does that make a difference?

MR. BAXTER: I'll jump in here, and I think we borrowed that from Sarbanes-Oxley. I don't want anyone to think that we invented that on our own. I remember when the requirement came into effect with Sarbanes-Oxley, there were many people who were skeptical that this was going to be check the box, but I do think it changed behavior in the C Suite.

MR. COHEN: Oh, I agree, but what you're clearly going to see is Sarbanes-Oxley as the precedent in every respect. Believe me, the CEO is not going to be the only certifier. His direct reports will certify. There will be sub-subs, sub-sub-sub certifications. I mean there'll be a thousand certifications, and it's going to be interesting to see how that trader on the desk says it really was market making.

MS. NAZARETH: But as you implied, how it changes behavior is that it goes all the way down through the organization to the person - to some relevant level where the person really was involved in the activity.

AUDIENCE MEMBER: I was wondering if you could please briefly discuss the Title II provisions for the orderly liquidation authority, specifically the lack of any judicial review and the sort of star chamber-like proceedings where, within the 24-hour period that a court is allowed to disallow the seizure of an entity, anyone who somehow reveals that to the bank in question will be imprisoned for five years and fined. And also I'd like to know if you agree with Citi's Richard Parson's description that big banks will get bigger because Dodd-Frank and the FSOC, in the market, will in fact enshrine and perpetuate the "too big to fail" idea.

PROFESSOR WHITE: I'm not a lawyer. I do not practice law without a license, and I say that within these halls here. In the late 1980s, I had to deal with the savings and loan debacle. I was one of the three board members of the Federal Home Loan Bank Board. We had hundreds of insolvent savings and loan institutions. One of the big surprises to me was: we would put these institutions into receivership, and essentially the men and women from the agency walked in on Friday afternoon - at that time, places closed at 3:00 p.m. - and at 3:05 p.m.

they walked in, they put the place into receivership. There wasn't some kind of judicial appeals process. It was just a done deal. That initially struck me as, "oh, gee, is that quite right?" Again, I'm not a lawyer. I came to terms with it.

These are insolvent institutions; it's pretty clear that they are insolvent; there was lots of opportunity in the months beforehand for the company, their shareholders, their representatives of their shareholders to be dealing with regulators and to try to convince them that things were going to get better. At some point, you have to pull the plug. I've come to terms with the idea that judicial appeals on these sorts of things - it just isn't going to happen.

PROFESSOR BUBB: I want to ask a follow-up question that's more fundamental or simple that relates to the question that was asked, which is so we have these new resolution authorities and processes put in place where the - I'm not going to go through the details of the procedure, but what's so bad about bankruptcy? So this all is instead of bankruptcy, Rodgin Cohen, who had to leave unfortunately for an obligation mentioned that - I think he thought bankruptcy was bad. What do the rest of you think? Why do we need a new resolution? Why can't we just use bankruptcy or tweak the bankruptcy rules?

MR. BAXTER: I'll take a stab at that. I don't think that anyone was saying bankruptcy is bad in general. The issue is bankruptcy for a financial institution, and the reason that a Bankruptcy Code application to a financial institution can be bad relates to value destruction, which you saw in the days after Lehman. If you study the Lehman case, you can understand why bankruptcy is bad when you start to appreciate the hundreds of billions of dollars that evaporated after the bankruptcy. And it happens for the right reasons because of the way the law works, particularly with respect to qualified financial contracts.

But the consequences are just so great, not only with respect to the value that's lost, but then all the consequential damages that are experienced across the society. Someone mentioned unemployment. You know that's one, but it's not the only one. And so when you start to look at the systemic risk occasioned by the bankruptcy, that in itself becomes the mischief to be avoided. Certainly that's what we were trying to do in fashioning rescues to Bear, AIG, Citigroup, and Lehman as

well. It was being aware of what the consequences would be and trying to avoid those consequences given the choices available under law. Now what's happened is now you have a choice with respect to the Bankruptcy Code or the orderly liquidation authority in Title II if you're talking about a systemically important financial institution.

And here I'll just stray into your question. What I think you really should look at is the decision making by the Board of Directors as to which of those to go for and there is a very favorable liability provision for board members who decide to do a Title II, consent to a Title II, rather than a Bankruptcy Code in terms of liability. So there's a built-in incentive in the statute with respect to boards contemplating this option between a Bankruptcy Code resolution and a Title II resolution. That's one significant difference.

I tend to concur with Larry that in situations like this where you have an insolvent organization, remedies with respect to the courts are not real remedies, and that what's likely to happen in this future world where decisions have to be made between a Bankruptcy Code resolution and a Title II resolution, is that it will turn on other things like what's our liability as a board? And those are very difficult discussions by board member and their counsel when you're talking about decisions with respect to insolvency and the zone of insolvency. When you're in that situation and you have to decide which it is going to be, these will be very difficult questions.

MR. KIM: I'd add too it's important to understand that bankruptcy works differently for investment banks. If you look at an airline, they seem to flit in and out of bankruptcy at a moment's notice. If an investment bank files for bankruptcy on Sunday, on Monday liquidation starts. Business stops, it has to sell itself and dissolve. Nothing can stop it. Under the orderly liquidation authority, the government actually has the ability to run it for a period of time - keep it together in sort of a bridge bank concept. So if it can continue to do business, you don't have to blow it up on Monday, and I think that's a very valuable thing.

PROFESSOR WHITE: But the CEO is out of there, the owners are out of there, as they should be because these are the people who ran this place in the ditch. As I understand bankruptcy, the owners and the CEO still have a big voice in what

happens in a bankruptcy procedure, and I don't want that. I want those guys out of there. They ran the place into a ditch.

PROFESSOR BUBB: Okay, more questions. Here in the back.

AUDIENCE MEMBER: One source of instability as seen with Lehman and Bear Stearns was rollover risk and short-term borrowing. You mentioned this in your discussion of the repo market and liquidity, generally. Does the Financial Stability Oversight Council have authority to impose novel restrictions, for example, limiting 3% of non-depository liabilities to have less than a 24-hour duration?

PROFESSOR BUBB: Anyone want to get into the weeds here of Dodd-Frank duration regulation of short-term credit?

MR. BAXTER: What the Financial Stability Oversight Council can do is it can recommend to supervisors to use the various supervisory powers that they have, but it is not contemplated under Dodd-Frank that the FSOC is going to actually exercise supervision like the Fed or the OCC or the FDIC. So they have the ability to suggest things, but they don't have the ability to actually make them happen.

MR. KIM: I'd add that the regulators do. One thing to keep in mind is that the Fed - all of the bank regulators - even before Dodd-Frank, have had incredibly broad powers, and they've managed to make banks do things indirectly even if they don't have express powers. Be it lengthen the maturities of their obligations, reduce liquidity risk - all those things, they've had the power to do them, and they have done them.

MS. NAZARETH: I'd also say that, given the way that the regulators would approach something like that, I think it's unlikely that it would be that specific. It may be that there would be charges, capital charges or other means by which they would incent institutions to move in a certain direction, but to say you can't have a duration of more or less than this or that, I think would be less likely because to some extent, that is imposing their own judgment on business practices that probably goes beyond what they would be comfortable doing.

PROFESSOR BUBB: I think we have time for one more. We'll go to the gentleman here.

AUDIENCE MEMBER: Tom mentioned before the crisis of confidence, and I think that was a function of what I was hearing in the early seminars that we had here - a lack of understanding of these products by many of the people who were

buying them, number one, but number two, a fairly good understanding of the fact that there were real flaws existing in the assessments of risk and leverage that had been made supporting these products. Is there anything to be learned about that from two things? One, Japanese quality control - get it right the first time rather than fix it after it runs off the assembly line.

And secondly, the actuarial model in the insurance industry where an actuary assesses the risks, the pricing, maybe the leverage or the reserves. What's the counterpart system to an actuary in credit default swaps in the financial services industry for doing what the actuarial does in the insurance industry? Are those valuable lessons in terms of how we might make these things better to start that would reduce systemic risk inherently? If you're making the product better from the ground up, you're going to almost automatically solve the systemic risk.

PROFESSOR BUBB: So was the question about risk management within a financial institution? Why don't they have better risk management models for example?

AUDIENCE MEMBER: How is the industry doing it? Is there a possibility for creating something like the actuarial model in insurance? What would be a counterpart model to use in the financial services industry?

MR. BAXTER: There is no question, Ron, and I agree with you that a part of the problem - and there are many parts to the problem - but one part of it was the pricing of risk, and some institutions did a horrible job with respect to how they were pricing risk. There are lots of reasons why that was so. In some cases they were relying on credit rating agencies. I know Larry has some views on that.

In some cases it was not understanding the complexity of the instrument. In some cases some of those instruments were poorly drafted by lawyers. You know you read through the instrument and you say it doesn't make sense because some lawyer screwed it up so no one could understand it. But the pricing of risk, which is what's imbedded in your question, I think, is a key piece. And if you misprice risk, then you can find yourself, as a financial institution, in a lot of trouble.

PROFESSOR BUBB: Great. Well, I just want to say thank you to our panelists. This was a terrifically educational event.

APPENDIX 1: CAPITAL AND LEVERAGE SLIDES

The Basics of "Capital" and "Leverage" for Financial Institutions

Lawrence J. White
Stern School of Business
New York University
Lwhite@stern.nyu.edu

Presentation at the NYU Law School Symposium on "Regulatory Reform...", January 21, 2011

1

"The shapers of the American mortgage finance system hoped to achieve the security of government ownership, the integrity of local banking and the ingenuity of Wall Street. Instead they got the ingenuity of government, the security of local banking and the integrity of Wall Street."

David Frum, National Post, July 11, 2008

2

Deep Throat* (Hal Holbrook): "Follow the money."
Bob Woodward (Robert Redford): "What do you mean? Where?"
Deep Throat: "Oh, I can't tell you that."
Bob Woodward: "But you could tell me that."
Deep Throat: "No, I have to do this my way..."

"All the President's Men" (1976)
Director: Alan J. Pakula
Writer: William Goldman

*Now known to be W. Mark Felt, Deputy FBI Director

3

Overview

- The basics of "capital" and "leverage" for financial institutions
- The consequences
- Implications for prudential regulation
- The good and not-so-good of Dodd-Frank
- Conclusion

4

The Basics of "Capital" and "Leverage" for Financial Institutions

5

Capital for a financial institution

- What capital isn't
  - The "K" in Q = f(K, L)
  - "Cash"
  - "Money"
  - Capital should not be confused with liquidity
- What capital is (approximately)
  - Net worth or owners' equity
  - The arithmetic difference between the value of assets and the value of fixed liabilities

6

The importance of capital

- Adequate capital is crucial in a legal system of limited liability for corporate owners
- Capital is the "cushion" or buffer that protects fixed liability holders (lenders) against losses in the value of assets of the entity to which they have lent
- Capital is a deterrent to risk-taking
  - The owners have more to lose
- Lenders should always worry about the adequacy of a borrower's capital
- Capital should be measured on the basis of market-value accounting

7

Leverage

- Leverage is the ratio of assets to capital
- Leverage is the inverse of the capital/assets ratio
- High leverage means that a small % increase in the value of assets yields a large % increase in the owners' equity
- High leverage means that <u>a small % decrease in the value of assets yields a large % decrease in (or elimination of) the owners' equity</u>

8

Typical industrial company

Assets	Liabilities
$100 (plant, equipment, inventory, etc.)	$60 (bank loans, bonds)
	$40 (net worth; owners' equity)

equity/assets: 40%
Leverage: 2½/1

9

Typical industrial company: a gain

	Assets	Liabilities
$110	~~$100~~ (plant,	$60 (bank loans, bonds)
+10%	equipment,	~~$40~~ $50 (net worth;
	inventory,	+25% owners' equity)
	etc.)	

equity/assets: 40% (now 45%)
Leverage: 2½/1 (now 2.2/1)

10

Typical industrial company: a loss

Assets	Liabilities
$90 ~~$100~~ (plant, equipment, inventory, etc.) -10%	$60 (bank loans, bonds)
	~~$40~~ $30 (net worth; owners' equity) -25%

equity/assets: 40% (now 33%)
Leverage: 2½/1 (now 3/1)

11

Healthy, solvent bank

Assets	Liabilities
$100 (loans)	$92 (deposits)
	$8 (net worth; owners' equity; "capital")

Capital/assets: 8%
Leverage: 12½/1

12

Healthy, solvent bank: a gain

Assets	Liabilities
$110 $~~100~~ (loans)	$92 (deposits)
+10%	$~~8~~ $18 (net worth;
	+125% owners' equity;
	"capital")

Capital/assets: 8% (now 16%)
Leverage: 12½/1 (now 6.1/1)

13

Insolvent bank (a loss)

Assets	Liabilities
$90 $~~100~~ (loans)	$92 (deposits)
-10%	$~~8~~ $-2 (net worth;
	-125% owners' equity;
	"capital")

Capital/assets: 8% (now -0.4%)
Leverage: 12½/1 (now ???)

14

Fannie Mae or Freddie Mac

Assets	Liabilities
100 (loans)	96 (bonds)
	4 (net worth; owners' equity; "capital")

(plus 200 in issued MBS)

Capital/assets: 4%
Leverage: 25/1

15

Lehman Bros. or Bear Sterns

Assets	Liabilities
100 (loans)	97 (bonds, c.p.)
	3 (net worth; owners' equity; "capital")

Capital/assets: 3%
Leverage: 33/1
Note: No deposit insurance; no access to the Fed discount window (before March 2008)

16

Fifteen Largest Financial Institutions in the U.S.
(by asset size, December 31, 2007)

Rank	Financial institution	Category	Assets ($ billion)	Equity as a % of assets
1	Citigroup	Commercial bank	$2,182	5.2%
2	Bank of America	Commercial bank	1,716	8.6
3	JPMorgan Chase	Commercial bank	1,562	7.9
4	Goldman Sachs	Investment bank	1,120	3.8
5	American International Group	Insurance conglomerate	1,061	9.0
6	Morgan Stanley	Investment bank	1,045	3.0
7	Merrill Lynch	Investment Bank	1,020	3.1
8	Fannie Mae	GSE	883	5.0
9	Freddie Mac	GSE	794	3.4
10	Wachovia	Commercial bank	783	9.8
11	Lehman Brothers	Investment bank	691	3.3
12	Wells Fargo	Commercial bank	575	8.3
13	MetLife	Insurance	559	6.3
14	Prudential	Insurance	486	4.8
15	Bear Stearns	Investment Bank	395	3.0

Note: The Federal Home Loan Bank System ($1,272B) and TIAA-CREF ($420B) have been excluded from this list; if GE Capital were a standalone finance company, its asset size ($650B) would have placed it at #12.

17

"Prime" mortgage borrower

Assets	Liabilities
100 (house)	80 (mortgage)
	20 (down payment; net worth; owner's equity)

Capital/assets: 20%
Leverage: 5/1

18

Minimal down payment mortgage borrower

Assets	Liabilities
100 (house)	97 (mortgage)
	3 (down payment; net worth; owner's equity)

Capital/assets: 3%
Leverage: 33/1

19

Insolvent financial institution

Assets	Liabilities
80	92
	-12

20

The Consequences

21

Consequences of insolvency

- Assets are inadequate to cover liabilities
- Owners' equity is negative
- Owners aren't liable for the shortfall
  - Limited liability for corporate owners
- Fixed liability holders must absorb the shortfall in some fashion, unless those liabilities have been guaranteed
  - E.g., deposit insurance
  - E.g., government backing of Fannie & Freddie debt

22

Fears of insolvency

- Creditors' fears of insolvencies can lead to
  - Runs
  - Refusals to lend

23

Consequences in the crisis

- Large financial institutions had thin capital
  - Difficulties in absorbing the losses from bad mortgages and mortgage-backed securities
- Uncertainties about the value of their assets
  - Runs
  - Refusals to lend
  - Freezing of the financial sector

24

Implications for Prudential Regulation

25

Implications (1)

- Capital and leverage are crucial
  - Measurement of capital is crucial
  - Market value accounting is vital
    - What to do when markets are thin?
- Moral hazard behavior is real
  - Early action by regulators is important
  - Forbearance is generally not a good thing

26

Implications (2)

- Prudential regulation of banks, insurance companies, defined benefit pension funds, money market mutual funds
  - Prevent runs
  - Protect unsophisticated claimants
- Prudential regulation of systemic-risk financial institutions is essential: large investment banks, hedge funds, BHCs, finance companies, mutual funds, etc.
  - Prevent runs

27

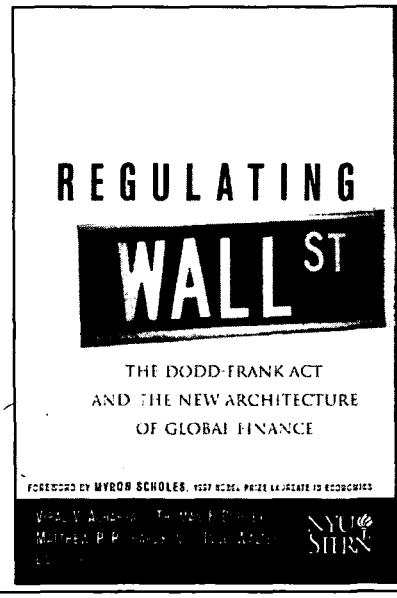
Implications (3)

- The key elements of prudential regulation
  - Risk-based capital requirements (limits on leverage), with prompt corrective action
    - Include sub debt and/or contingent capital
  - Limitations on activities
  - Managerial competence requirements
  - Close monitoring of financial flows between the regulated institution and its owners
  - Examiners and supervisors
  - Powers of receivership for the regulator

28

The Good and Not-So Good of Dodd-Frank

29



30

The good things

- Stresses the importance of capital
- Expands prudential regulation to large systemic financial institutions
  - GE Capital?
- Expands receivership resolution authority to large systemic financial institutions
  - Bankruptcy is not a good resolution mechanism
    - See Lehman
- Reduces the importance of credit rating agencies (maybe)

31

The not-so-good things

- Silence on Fannie Mae and Freddie Mac
- Expanded regulation of credit rating agencies
- Absence of a tax on size or on systemic risk
- The Volker Rule
  - Proprietary trading was not the cause of the crisis
    - Bad investments by thinly capitalized financial institutions were the cause of the crisis
  - The repeal of Glass-Steagall (the Gramm-Leach-Bliley Act) was not the cause of the crisis
- The freeze on industrial loan companies
- Regulation of debit card interchange fees

32

Conclusion

- Understanding financial institutions is important
- Understanding the capital and leverage of financial institutions is important
- Good public policy depends crucially on these understandings

33