

Challenges in Global Financial Services
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Abstract

This is an edited transcript of the proceedings of the Yale Law School Center for the Study of Corporate Law's Sullivan & Cromwell Conference on Challenges in Global Financial Services, which was held on September 20, 2013. The conference brought together policymakers, legal practitioners, members of the financial community, and academics from finance, economics and law to discuss the current challenges in the organization and regulation of global financial services.

The roundtable consisted of four panel discussions. The first panel considered "Bank Capital and Liquidity Requirements." Panelists were Stijn Claessens, Assistant Director, Research Department, International Monetary Fund; Michael H. Krimminger, Partner, Cleary Gottlieb Steen & Hamilton LLP and former General Counsel, Federal Deposit Insurance Corporation (FDIC); Andrew Metrick, Deputy Dean for Faculty Development & Michael H. Jordan Professor of Finance and Management, Yale School of Management; and Roberta Romano, Sterling Professor of Law and Director, Yale Law School Center for the Study of Corporate Law. Ian Ayres, William K. Townsend Professor of Law, Yale Law School, moderated.

The second panel addressed "Bank Transparency and the Financial Crisis." Panelists were Robert J. Giuffra, Jr., Partner, Sullivan & Cromwell LLP; Gary B. Gorton, Frederick Frank Class of 1954 Professor of Management and Finance, Yale School of Management; Henry T. C. Hu, Allan Shivers Chair in the Law of Banking and Finance, University of Texas Law School, and former Director, Division of Risk, Strategy, and Financial Innovation, U.S. Securities and Exchange Commission; and Frederick Schauer, David and Mary Harrison Distinguished Professor of Law, University of Virginia School of Law. Donald Kohn, Senior Fellow, Brookings Institution and former Vice Chairman, Federal Reserve Board, moderated.

The third panel focused on the "Accountability and Structuring of Systemically Important Financial Institutions (SIFIs)." Panelists were H. Rodgin Cohen, Senior Chairman, Sullivan & Cromwell LLP; Edward J. Kane, Professor of Finance, Boston College; Andrew W. Lo, Charles E. and Susan T. Harris Professor, MIT Sloan School of Management and Director, MIT Laboratory for Financial Engineering; and John F. Simonson, Deputy Director for Systemic Resolution Planning and Implementation, Office of Complex Financial Institutions, FDIC. The moderator was Henry B. Hansmann, Oscar M. Ruebhausen Professor of Law, Yale Law School.

The fourth panel on "Cross-Border Resolution" had the following panelists: James W. Giddens, Chair, Corporate Reorganization and Bankruptcy Group, Hughes Hubbard & Reed LLP and Liquidation Trustee, Lehman Brothers Inc. and MF Global Inc.; Seth Grosshandler, Partner, Cleary Gottlieb Steen & Hamilton LLP; Richard J. Herring, Jacob Safra Professor of International Banking & Professor of Finance, The Wharton School, University of Pennsylvania; and Jonathan R. Macey, Sam Harris Professor of Corporate Law, Corporate Finance, and Securities Law, Yale Law School. The panel was moderated by John D. Morley, Associate Professor of Law, Yale Law School.

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Editors' Note

This transcript of the proceedings of the Sullivan & Cromwell Conference on Challenges in Global Financial Services makes available to a wider audience the conference discussion on bank capital and liquidity requirements, the role and impact of bank transparency, the accountability and structuring of systemically important financial institutions (SIFIs), and cross-border resolution issues. The transcript has been edited by the speakers and editors in order to facilitate readers' following of the discussion. The video recording of the panel discussions, from which the transcription was derived, can be viewed on the Yale Law School Center for the Study of Corporate Law's webpage archiving the event at <http://ccl.yale.edu/node/1176>.

The editors would like to thank Sullivan & Cromwell, LLP, whose support made the conference possible.

Alphabetical List of Speakers and Moderators

Ian Ayres, Yale Law School (Panel 1)
Stijn Claessens, International Monetary Fund (Panel 1)
H. Rodgin Cohen, Sullivan & Cromwell LLP (Panel III)
James W. Giddens, Hughes Hubbard & Reed (Panel IV)
Robert J. Giuffra, Jr., Sullivan & Cromwell LLP (Panel II)
Gary B. Gorton, Yale School of Management (Panel II)
Seth Grosshandler, Cleary Gottlieb Steen & Hamilton LLP (Panel IV)
Henry B. Hansmann, Yale Law School (Panel III)
Richard J. Herring, Wharton School, University of Pennsylvania (Panel IV)
Henry T. C. Hu, University of Texas Law School (Panel II)
Edward J. Kane, Boston College (Panel III)
Donald Kohn, Brookings Institution (Panel II)
Michael H. Krimminger, Cleary Gottlieb Steen & Hamilton LLP (Panel 1)
Andrew W. Lo, MIT Sloan School of Management (Panel III)
Jonathan R. Macey, Yale Law School (Panel IV)
Andrew Metrick, Yale School of Management (Panel 1)
John D. Morley, Yale Law School (Panel IV)
Roberta Romano Yale Law School (Panel 1)
Frederick Schauer, University of Virginia School of Law (Panel II)
John F. Simonson, FDIC (Panel III)

PANEL I: Bank Capital and Liquidity Requirements

ROMANO: Welcome everyone to the Yale Law School Center for the Study of Corporate Law, Sullivan & Cromwell Conference on Challenges in Global Financial Services. I'm Roberta Romano, the Director of the Center. We're delighted that you could be here and we want to thank the Sullivan & Cromwell Law Firm for its splendid support for enabling us to put on this conference.

Please note that the remarks are the views of the individual speakers and do not reflect the views of the organizations with which the speakers are affiliated. I will turn the floor over to our Moderator for Panel I, Ian Ayres.

AYRES: Our first speaker is Stijn Claessens.

CLAESSENS: [[CLICK HERE TO VIEW SLIDES](#)] I'm going to give you a little bit of an overview of why capital and liquidity requirements are important and what experiences have been with capital and liquidity requirements. I want to talk about three reasons why to have capital and liquidity requirements; one as an incentive device, two as a buffer, and three for resolution intervention purposes. I will give you a little bit of an overview of the experiences that we have had with capital requirements and what the debates are at this point in time and I'll also talk about liquidity requirements.

On the capital side, I think the incentive story is the skin in the game story; more capital puts more money at risk, so you would have better incentives to manage your bank better. It's an obvious one but it's actually a relatively recent one and I think Mike is going to talk more about that. Second, the buffer story is a fairly obvious one as a going concern you like to have some money so you can assure that you can continue to absorb some losses and

continue to go on. And the intervention one is really the gone concern question, how can we assure that we can intervene on time, that is, we don't get losses for other claim holders.

To give you some sense that this capital issue is a live issue, we've had changes in capital ratios in the banking system in the U.S. over the last 80 to 100 years. There has been at first a decline after the World War and then steadily an increase in measured capital. I'm going to be careful here to say that this is the capital as it's been measured. We've seen the run-up before the crisis which we, of course, all know wasn't necessarily exactly a true capital increase.

I can tell you the liquidity requirement story is somewhat similar. There is the same incentive story. As we discovered in the crisis, it's not just the asset side that matters. It's the liquidity side as well; how do you fund yourself, because it makes you more risky, if it is wholesale funding. The funding also affects how you invest in your assets. If you have SIVs that are funded short-term, the funding in some sense can be driving your asset choices. The buffer story is somewhat similar to the capital to help you prevent liquidity runs, as you get closer to liquidity issues. And intervention is somewhat similar as well. And the two, of course, are always going to be related to buffer and the intervention arguments.

And, again, here the story is, there has been some movement in the funding structure but it has been more of a secular decline in the U.S. We have had much less reliance on deposits across the whole banking system. These are all the banks, not just the large banks, although, of course, after the crisis, deposits have gone back into the banking system so that the deposit-to-liability ratio has gone back up. But this has been more of a secular trend rather than the variability that I showed you for the capital side.

Now one thing that people don't know is that there has been a tradeoff between capital and liquidity. If you look historically, and let's forget the interwar and the war periods, there has been a time when capital was low and when liquidity was high and there have been times when liquidity was low and capital was high. So we've had this tradeoff in some sense implicitly within the banking system between capital and liquidity requirements. The banks in the 1950s and '60s had much higher liquidity than they have today.

Now what are the issues with all of these reasons for having capital and liquidity? I'm just going to go quickly through some of these issues. One, on the incentive side. Actually, I think we probably know the least on that dimension. But we do have some concerns that if you raise the capital requirements, the banks may actually start generating more risk, to the extent that their margins are reduced, they may be more willing to take on tail risk, so in the extreme, carry trade "risk" may be higher when you have higher capital requirements. As the margins get compressed, in some sense, the risk-taking incentives could be increased. It also, of course, is going to affect your franchise value as an institution. You may not have the same franchise value and, again, that may affect your risk-taking incentives. There are other incentive issues. There's a lot of market versus regulator gaming going on clearly in this capital requirement business and it really gets you down to the details. I don't want to go there very much but the one big thing, I think, we do realize now after the crisis that the individual microprudential view of capital doesn't necessarily give you the systemic perspective. It doesn't necessarily assure that the system as a whole is solvent.

And, again, just to illustrate some of these issues why capital doesn't necessarily do all that much, I showed you that capital was increasing in terms of capital ratios. At the same time, of course, leverage has had this cyclical property. Adrian and Shin showed us very

clearly, peaking before every kind of crisis that we've had, so capital doesn't seem to have served the purpose of reducing risk-taking at those crucial points in time. Question also is on the return on assets, if capital really would have been this incentive device that would have reduced risk-taking, why did the return on assets actually peak before the crisis, i.e., was the return of the banking system that high? Capital was supposedly high as well, so what was exactly the tradeoff that we were trying to achieve and, I think there was some of this carry trade risk-taking incentives, where we had high capital and high returns.

On the buffer side, it's fairly straightforward. I think there we have less concerns. More capital will always, when there is a problem, make the bank safer and sounder. Again here, there is a game between the market and the regulator, the manipulation of the issues of capital before the crises are obvious and, again, there is the micro versus the macro perspective. Will the macro buffer be there even if you have the micro buffer and, again, that's the interaction between the banks. The experiences here are that capital helps you but it's probably not the only indicator. Leverage, liquidity, there's a lot of nonlinear effects here that makes higher capital not the only indicator for a more stable system and, just the effect of the overstatement of capital is very obvious even before the crisis when we look at the regulatory capital ratio of banks (these are the larger banks in the U.S.), and what the market was thinking of these banks in terms of price-to-book ratio. The market was already discounting way before the crisis actually occurred and the regulators were very slow, if ever, to push the banks to acknowledge these lower values on their assets.

Thirdly, back to the list I had – incentives, buffers, and interventions – on interventions: Here the question is, of course, will you intervene not too late. Is it just a matter that capital saves you the two more days, so you were supposed to intervene a week

ago, a month ago, and you end up not doing it, so you save by having a higher buffer, higher capital yourself with two more days? And does it not also send an adverse signal to the rest of the system if you do intervene? I think here on the intervention it's clear that capital alone is not sufficient. You need a lot more apparatus to make this happen to avoid a manipulation and to get in early enough to be helpful there. The experiences, unfortunately, are that deposit insurance agencies get in too late because they do incur cost. And, again, just to illustrate the problems here as well, if you look at the banks that were intervened, this is not just the U.S. but also other banks around the world during the 2008-2009 crisis, those banks that were intervened had both higher capital reported and higher return on assets before the crisis but it were commercial banks or investment banks that looked much better that nevertheless were intervened at that point in time. So the issue of manipulation, the issue of reporting is very crucial when we talk about capital. The case of Bankia is a case, which is probably an extreme form of manipulation, where the bank was still issuing preferred equity, although it clearly was at the brink of insolvency and the price only adjusted afterwards.

Now after having these kind of conceptual perspectives on the incentive, buffers and intervention perspectives, what might capital requirements look like? I think the panel will talk about it much more, Basel II, Basel III, of course, is the latest innovation here. I just want to remind you that on liquidity sides, while this is coming up more recently with the liquidity coverage ratio and the net stable funding ratio, the liquidity has been around for a lot longer so, in some sense, there's a little bit of a reversal of history here. With capital we are increasing it, while with liquidity, we're going back to where we were maybe in early days and trying to achieve better banking systems.

Now in terms of what does the academic and other views think of all of this, so “where do we want to end up” with capital as well as with liquidity? Well there is one view out there that’s Admati and Hellwig view. It doesn’t matter. Capital is cheap. Let’s go for a very high capital ratio because in that way we can have a stable banking system, better incentives, better buffers and what-have-you. I think there is a lot of more nuanced views of others around and most of those center on the view that you should have, higher capital but it’s much more important to have a much more graduated capital scale, so it’s not just that you have capital but you also have contingent claims. You have other kinds of bail-in instruments, forms of contingent debt that can be converted into equity so that we have a more graduated scale. If there were to be a problem, that way the bank almost by itself maintains its capital buffers as we get into the crisis. On the liquidity side, I think we have less views out there. There are some people, like Markus Brunnermeier, Hyun Shin that have proposals. Dan Tarullo had a proposal last year that he said where we should link liquidity to capital. I think that’s more or less what the academic perspective is; liquidity to the extent you want to penalize the banks for having bad liquidity structures, you probably want to link it to the capital side.

Now those are not the only views, obviously, and experiences should matter also in this debate. On the experiences, actually, frankly, for preparing for this presentation, I went through the literature. There isn’t all that much that really can point us to effects of capital requirements on actual capital, as typically, the market is ahead of the regulator, if you think of capital requirements. Nevertheless, in Basel II we had some instances where the requirements actually made a difference. It’s not to say that capital requirements don’t make a difference but you have to think of it in the context of what the regulator is asking for.

Obviously, one big issue that the industry will bring up, justifiably so, is the cost. What are we talking about in terms of the extra cost that we intermediate, pass on, that is interest margin, to the final borrower? Now, here, the industry may have a slightly different perspective than what most other analysts think, where they say the costs are actually relatively small. It's not a large increase in the intermediation margin for a one percentage point of increase in capital: analysts talk about six basis points increase in terms of intermediation margin. But this may not be the most important argument. The bigger argument may be the disintermediation of the banking system and I think Andrew is going to talk a little bit about that.

One other perspective on capital to keep in mind is the actual losses, of course, for the system as a whole. If you go on that benchmark, we're looking here at banking crises around the world. How many NPLs were there post-banking crisis, that is, systemic banking crisis, and if you don't adjust for the risk-weight in the NPLs, you easily come up with a ratio of 9%, 10%, or higher for capital. So, in that sense, as a buffer, we really should already think of 10% if not more than that to begin with.

What else is needed? A lot. I don't put faith only in capital, or liquidity. I think that should be the story. There is a lot of other things. This is a laundry list. I'm not going to discuss it here, but capital alone, liquidity alone is not sufficient for intervention.

Unfortunately, on all of these other things, progress is not that great. This is a scale where the green is where the regulations are good. The red is where the implementation or the regulations are limited and if you go down from Basel III to accounting. In accounting we have had both limited progress in regulations, as well as limited progress in implementation.

Many of the other components five years after the crisis are not there yet, so that should make us worry.

So to summarize, what do I think of capital and liquidity? The incentive side, I think, is not so obvious, what capital does for you. I think the buffer and intervention are somewhat clear that capital can do that at the micro level. At the system level, probably both can help on the cross-sectional risk dimension, the too big to fail dimension, but it's not so obvious what to do on the procyclicality of having a banking system that is actually procyclical. Liquidity is actually even less obvious to me. I see more question marks on where liquidity can help, on the incentive side or on other perspectives. And regardless, I think, for all of these dimensions, these other tools that I give some examples here, are key, particularly on the intervention side. You need to do much more on resolution in order to make the banking system more stable. Thank you.

AYRES: Thank you. Our next speaker is Michael Krimminger.

KRIMMINGER: It's a pleasure and an honor to be here to talk with you today. I'm going to go quickly through a little bit of a history, if you will, of some of the Basel Capital Standards. I think it follows on very well to the presentation we just heard because my goal is to raise some issues about the evolution of the standards, the evolution of the rules, and the evolution of the debate and what we're actually trying to accomplish at this point with capital. I think it's clear that strong capital is essential. No one really debates that, I don't think. I think that, certainly, one of the lessons coming out of the financial crisis we've just been going through is that strong capital is necessary with institutions to give a better buffer to avoid the need for resolution. But one of the questions I want to pose is what are we planning to use it for now? While I was at the FDIC, I think it's fair to say the FDIC was well-known

as being an advocate of strong capital, maybe stronger and stronger and stronger capital still, but one of the key things to remember about the positions the FDIC was taking at that time was that we viewed capital as only one element of a strong regulatory system and a strong and healthy financial system. Certainly, you needed capital but you needed effective regulation and you needed market discipline. And I would add to that something that I spent a little bit of time on in Dodd-Frank, a resolution authority that can address all types of institutions. But I think that some of the debates today appear to make capital the only focus of attention, such that capital is in some ways supposed to cover for concerns about the effectiveness of supervision and cover for concerns about the effectiveness of a resolution authority. I think it's important to remember that if that's the conclusion of policy makers then that has consequences.

Let me go to my little quick history lesson for a moment. I know there are a number of people in this room who know this history even better than I and were there. Some may conclude that my summary is simplistic and superficial but it's simplistic and superficial to focus on a few key points, so bear with me. First of all, what is capital? As we just talked about, capital really is there to provide a buffer against bank losses, to protect creditors in the event a bank fails and to create disincentives for excessive risk-taking. That is one summary. We've gone through many phases of the history of banking and through many financial cycles. If you think through the 19th century, the early 20th century, and the creation of the Federal Reserve System we had those earlier periods in which we've had very little, if any, capital regulation. Certainly, I think the comment was made a moment ago about the inter-war and the war period, in which effectively buying government bonds was the antidote to capital. So there have been capital standards that have been evolving. Coming out of the

Herstatt case in the 1970s, there was a recognition, of course, that there needed to be some international standards for capital. So the first international standards were those created as a consequence of that new recognition.

In the 1980s, the Basel Committee on Banking Supervision approved the Basel Accord of 1988. One of the achievements through Basel I, after it became more effective and was then adopted in laws around the world, was to provide a level playing field for internationally active banks. Basel I provided a real focus on credit risk. This was not just the old traditional equity-to-assets leverage ratio that had gone before. I think that was one of the big hallmarks, of course, from a superficial basis, perhaps, of Basel I. This first Basel accord was designed to incorporate risk into the calculation of capital standards - something that was fairly innovative. Under Basel I, there were really two key ratios, a Tier I ratio that pointed about 4% and a total capital ratio of about 8%. That was an innovation and it was designed around the idea of providing risk-weightings in certain very large banks. One of the criticisms later on, of course, was that Basel I was too imprecise by focusing on large risk buckets so that you have capital set at a certain level and you have risk-weights divided into five categories based upon the perceived riskiness of the types of assets you were talking about. As a result, one of the critiques of Basel I, of course, was that it was too simplistic. It was not really identifying other risks that banks were running. It was not really even identifying in any kind of clear way, in any kind of precise way, the riskiness of different assets and so the size of the buckets, of course, was a problem. It created immense opportunities, I'll say, for arbitrage around the capital standards in order to get additional earnings or additional income, additional profits for arbitraging what economic cost of the capital or economic capital might be that the market might impose, and what the standard

bucket would impose and the fact that the Basel standards ignored other types of risk became increasingly a criticism of the Basel I capital standards.

Then there came the evolution during the early 1990s of more and more criticism of Basel I. There were a variety of different proposals that came about to add different types of risk categories. For example, people started talking about the need to include operational risk, market risk, and etc. There was a perceived need, if you will, in the mid-90s to look for ways to actually get the risk that would be considered by the capital standards to be more consistent with the way that institutions actually managed their business book, their banking book, their trading book, their market risk, etc., so there'd be more consistency in how the business was managed and how the capital rules were set to deal with the arbitrage problem in many ways. One of the things that began to start, as we were talking about these issues in the late 1990s, was to look at a new approach to the Basel capital standards that ultimately became Basel II. The development of Basel II became a process that would look at utilizing the internal models of institutions to match up capital and the way that capital was allocated within a company to the capital that was being required by the regulators. This was viewed as one way to avoid some of the arbitrage problems and also, as I noted a moment ago, to add additional risk categories that needed to be dealt with.

In June 1999, the Basel Committee, after quite a bit of work, issued a new proposal for a capital adequacy framework. When I say "quite a bit of work" that may be the most understated euphemism I can think of. The Basel process, for those who have not been involved, involves establishing a technical working group and then sub-sub-sub-working group to analyze, discuss and debate the issues. It is within these working groups where everything is feathered out and debated hotly amongst regulators around the world. As an

aside, one of the things I think that that Basel process is important is it looks at a lot of detail. One of the difficulties of the Basel process is that sometimes the detail overwhelms the issues which you actually started out trying to address.

In any event, after a lot of work, in June 1999 the Committee issued a proposal for a new capital adequacy framework to replace the 1988 Accord. Basel II really consisted of three pillars. I will just mention these briefly because you'll hear those discussed quite a bit today. First, it added additional types of risk in Pillar I to set the minimum capital requirements for credit risk, market risk, and operational risk to expand upon the original Accord. Pillar II was the supervisory review that was supposed to look at an institution's capital adequacy and its internal assessment process. And then Pillar III was designed to bring into focus something which is very important and really was the hallmark of how banks managed themselves before capital standards – that's the effective use of market discipline. The FDIC's principal focus for bank regulation while I was there – and I'm sure still is – was to see how all of those elements support each other.

The Basel II Capital Accord was designed to use the banks' internal models and it became quite controversial internationally, certainly, with the slow adoption and slow implementation of the Basel II Capital Accords by the United States. One of the reasons for that slow implementation, I think, is that there were still a lot of questions being raised about the use of the internal models approach – whether that was an effective way of establishing capital, whether under certain economic and financial circumstances and with certain types of assets that could lead to the potential for capital arbitrage, and whether it could lead to setting capital too low compared to the risk that might be borne. Certainly, when I was at the FDIC, Chairman Sheila Bair was very adamant about the need to have that buttressed with some

additional capital protections and was certainly of the view that there needed to be an international leverage ratio to supplement risk-based capital. I say that specifically because today they are certainly part of the debate – the idea that a leverage ratio should be potentially the only capital measure. One of the issues that was raised, of course, about the Basel II implementation in the United States was the results of some of the quantitative impact studies and whether capital levels were rising and falling at the right times, if you will, or whether it was too procyclical.

Certainly in my view when I was at the FDIC and subsequently, the idea of a leverage ratio as being the only capital measure is foolhardy at best. A simple leverage ratio doesn't take into consideration the riskiness of various types of assets and puts you back almost in a pre-Basel I stage. A leverage ratio is important, but it cannot be the only measure of regulatory capital.

Some of the implications of Basel II created some concerns, so there was a lot of work then going into place to supplement Basel II with Basel III. So to cut to the chase, Basel III as adopted, continues the trend of increasing the types of risks that are accommodated by the capital standards, as well as tightening the definitions of capital. Concerns have been raised during the crisis that the definitions of capital were a little bit too broad. So, for example, the Basel III process in the United States transitions out trust-preferred securities, which were not viewed as being sufficiently loss absorbing in a crisis and to address the difference between equity capital, common equity capital, and more debt-like instruments.

Basel III also includes an international leverage ratio. This stirred a great debate. Another thing to remember about the Basel process is that the debates within these groups and subgroups and sub-subgroups will percolate up. Then, the very detailed and substantive

debate will be effectively resolved around what the top level Committee members think is the right thing, and what can they negotiate with other members who think that's not the right thing. So it is a negotiated process. It is, after all, a Basel Committee, and does have some of the features of a committee process. The Basel Committee leverage ratio has now been put in place in the rules that were just adopted by the U.S. federal regulators. The U.S. regulators in the adoption of the rules in June increased the prior U.S. leverage ratio and imposed a tougher leverage ratio than required by the Basel Committee. The new U.S. standards are considerably tougher - particularly for the largest financial companies - by the use of the supplemental leverage ratio so that you effectively get a 5% leverage ratio at the holding company level and a 6% ratio at the bank level. Also, the Basel III rules increased the risk-weights and provided for more buckets to give a little bit more of a granularity, if you will, to the risk-weighting process.

Now I want to talk for a moment about one of the issues I would raise in looking at this evolution of regulatory capital from pre-Basel I to Basel I then Basel II and Basel III. Obviously, you see an increase in the levels of capital generally. You see an increase or decrease in the types of instruments that can be considered as capital moving much more to a common equity standard and you see, I think, an evolution of what capital is being used for. As some point, I think that evolution can be dangerous. When you look at what capital can be used for and you look at things like the G-SIFI Buffer and the additional surcharge being provided for large financial institutions, capital in some ways is going from a focus on what are the risks proposed by the assets, the balance sheet of a particular institution, to what are the risks proposed by the existence of that institution. What I would put on the table is whether that is more of a question for capital to resolve or is that more of a question that

should be resolved either from a policy perspective or even in a political perspective by statute? Is capital really being used for the purposes that I would view as it having been originally designed for? Certainly, when the FDIC adopted the Basel III rules in July, Vice Chairman Hoenig seemed to be pushing for an interim final rule so that the rule could be adjusted further. Certainly, Governor Tarullo, who will talk at lunch, has stated that more will come, including the G-SIB capital surcharge, a long-term debt requirement, additional capital for those that are dependent upon wholesale funding.

Posing my questions again, what is capital? Is it to absorb unexpected losses, including from different types of risk – credit risk, operational risk, and market risk – or is now that in some ways size may have become the primary criteria. Some would argue, perhaps, that's appropriate in terms of making sure that the largest institutions pay the rents they have on the market place but, really, I would pose again is that really the role of capital or is that something that should be much more for the supervisory process? Then there's also the question and you can see this evolution of how much is enough when you start getting into capital standards that go beyond 10 to 20 and then in some academic discussions and even by Mr. Vickers in the U.K. to 30% capital. We might want to ask at some point what would be the consequences of going beyond and beyond and beyond and having a negotiating game in which I will top you and you will top me to go higher and higher and higher with capital because that has significant impacts upon what the financial system does, about the economic opportunities for growth. While it can be debated, as was noted before, that whether capital costs as much as some would argue, I think it's probably beyond debate that at some level you end up reducing the ability of the financial system to intermediate credit so that credit can be available to the system. What that tipping point is, I don't know, but I would argue that going

to 30% is more confiscatory, like a progressive income tax, than it is a capital measure.

Thank you very much.

AYRES: Thank you. Our next speaker is Andrew Metrick.

METRICK: Thank you. Mike finished with a perfect lead-in for what I'm going to talk about so thank you. That was unplanned but skillfully done. I want to talk a little bit about what those costs might be, of, what the costs of capital might be, how we would think about them, and what the overall effects would be on the financial system. So whereas what we've heard from Stijn is, I think, a very useful overview of how to think conceptually about both capital and liquidity standards and Mike gave an excellent tour of what's gone on and pointing us forward towards the challenges that we have, what I'm going to talk about is a little more futuristic. I don't think that anything that I'm going to suggest here today, certainly will play any role in Basel III, which is written. I think it will probably play no role in Basel IV but there's some hopes for Basel V and Basel VI but first we have to win the intellectual battle. I'm here for the long game, at least I hope so, so that's what I'm going to try to talk about.

For economists who have been weaned on what is now a classic, 50-year-old paper by Modigliani and Miller on optimal capital structure, which started a whole literature about how firms should organize the right-hand side of their balance sheet between debt and equity. We start with a benchmark model that comes from Modigliani and Miller that in a frictionless world, the cost of capital for a firm and, thus, the value of the firm is completely independent of how much equity it has and how much debt it has. In that nice, frictionless world, a company with 100% equity would have the same value and the same cost of capital as a company that had 1% equity and 99% debt. In fact, while there are some frictions that have

been identified by economists that would cause that to not be completely true and there's an enormous literature and many people have earned tenure and continue to write papers in the top journals explaining what those frictions are, the baseline result is that, to a first approximation, the costs are probably not that large, maybe on the order a few basis points per 1% change. And that's our starting point and it is from that starting point that we get the academic literature that Mike referred to, suggesting maybe banks should have 30% and some people will say 50% but then acknowledge that's not realistic as the amount of capital that banks should have. That's a completely logical conclusion if you start with the idea that the cost of a financial crisis is enormous. We won't have financial crises if banks are properly capitalized and the cost of banks being properly capitalized can be approximated at zero. And that's essentially that argument.

I think that there's a deep problem with that argument, given the financial system that we have today, but it is not the reasons that I think we often hear from industry and it is not the reasons that we often hear from regulators who have been convinced by industry that, for instance, equity is just more expensive than debt. I think that is exactly not true, Modigliani-Miller gets at that a bit, on the confusion between banks having capital and banks holding reserves so there's a notion that, hey, if banks have to have 30% capital, none of that money can be used to be lent out. Instead, it has to sit there in the vault. That's just a confusion between capital and reserves. Capital is a right-hand side to the balance sheet story and what you do with it is the left-hand of the balance sheet, so these are not the issues. The issue is that our system is no longer one of just having traditional banks that we can regulate and then keep them nice and safe and then ignore what happens elsewhere. Instead, we have and it's been developed world-wide, a very, very deep parallel banking system, which goes by lots of

names, shadow banking being the most nefarious, but overall the idea is that it's doing the same type of functions in many cases of creating money substitutes that can be used as transaction media and doing it in a very, very similar way to the banking system. And, indeed, the crisis that we just had started and accelerated in this parallel banking system and it was really only later that it spilled over to the regular banking system.

What might those costs be? If we think that banks are just like all other industrial firms then there wouldn't be anything special. We'd be looking at some very small frictions. But banks are indeed special because to begin with, the benchmark case in Modigliani-Miller of a 100% equity firm is really nonsensical for a bank. There is no such thing as a 100% equity bank. There's 100% equity and then make loans but there's not 100% equity where you have demand deposits, which are by their nature debt. To the extent that a major function of banks is the creation of liquidity and the facilitation of the payment system through production of bank debt, which is what banks' products are. McDonald's makes hamburgers and Apple makes iPhones and banks make debt, and if you're going to produce debt then you cannot have 100% equity and if you have 50% equity, to some extent, this is like telling McDonalds you must sell 50% chicken McNuggets and 50% hamburgers and if you sell more than that in hamburgers, you can't go there. Well, then, I might start a rival hamburger place that doesn't sell chicken McNuggets at all and, indeed, that's what we see a little bit of, that's effectively what the shadow banking system is. Bank debt has a convenience value to people. You can use it for transactions in a way that you can't use most other stores of value; you can't use your stock certificates or your long-term bonds or even your long-term government bonds directly in any kind of transaction, which includes complex financial transactions where you need to provide collateral. Instead there's a huge demand for things that you can

use as transaction meeting collateral and the financial system says, okay, you have this big demand for it, we will manufacture it. And that's what demand deposits are and what repurchase agreements are and a lot of asset-backed securities and that's the business that they're in and to the extent that what we say to them is you're limited in your ability to do that or you must hold a certain amount of equity capital. Let's say that the convenience yield that you get from issuing bank debt maybe is something on the order of 100 basis points. Even in that world, we would be talking just one extra basis point of cost for having to have an extra 1% of capital. If you go up to 30% of capital from, say, 5% where we used to be, that's 25 extra basis points in a world where risk-free rates are zero, that's a lot. And you will get an enormous parallel system as indeed we saw. On the eve of the crisis, we had a 4 trillion dollar money market mutual fund business.

Money market mutual funds are, in case you want a shorter word for money market mutual funds, banks. You give them money, they promise to give you back 100 cents on the dollar. You don't think, you think it's insured. It is insured. The Federal Government came and even though we've passed a law saying they can't do it in the future, the Federal Government came in and said we will make sure you get 100 cents on the dollar. They have no capital requirements. They have no reserve requirements. They pay nothing into an insurance fund. Those very small differences mean that they can pay a little bit higher than a bank can on demand deposits and you end up with a 4 trillion dollar regulatory arbitrage, which is what we had on the eve of the crisis in 2007. We have not fixed that problem. The SEC tried to do something very modest and got pushed back and then tried to do something even more modest and is still trying to get it done and we're seeing a lot of arguments from industry that they shouldn't get it done. And that's only one piece of it. There's also a large

debate about it but, certainly, of that same order of magnitude market for repurchase agreements. There was a very large asset-backed, commercial paper market, which is only starting to come back, which is based on the same idea.

What is the answer? As I said, we clearly don't have the committees and the subcommittees and the subcommittees beyond that will never be able to get this done now. We don't have an intellectual consensus now and even where we have an intellectual consensus, where I think one does exist for the most part on money market mutual funds, we can't get that done just quite yet. We still have some time, some fight in front of us to be able to develop enough of an intellectual consensus, so that we might be able to get inside of the committees and the subcommittees, where I have found in all my conversations these are very smart, capable public servants who want to do the right thing but unless we know what the right thing is to do, it's hard and you end up just in a lot of debates about it. To get there, what do we need to do? I think there's a theme and then on the details we can debate. The theme is we absolutely need to think about congruent regulation for the same activities. If you're in a world of money creation, if you're in the world of creating something that is a safe asset that can be used as collateral, you need to be thinking about making sure you have similar rules across different places. We don't want to be in a place where money market mutual funds can do the same things as banks but under completely different rules, so there we would need something that looked if you hold a security on your balance sheet, whatever it is, and a bank gets charged a certain, has a certain capital charge for holding that security, well, a money market mutual fund should have the same capital charge and the same insurance premium. Similarly, for things like repurchase agreements to the extent that you want to enjoy the safe harbor of bankruptcy, which enables it to be used effectively as a

money substitute, you need to have some kind of minimum haircut, which is exactly analogous to whatever your capital requirement would be if you're a bank. Gary Gorton and I have worked a lot on this. We continue yelling out into the wilderness. Morgan Ricks has worked a lot on this and continues yelling out into the wilderness. And I think that there certainly are policy makers who, in my view, Dan Tarullo being one of them, have a very good understanding of this and are working on it but it's not for tomorrow, obviously. But I certainly encourage everybody when thinking through capital requirements and liquidity requirements for banks to remember that what we have now, we've absolutely built it, we have two highways and they approximately have the same number of cars on them and on one highway, we're putting up tolls and we're putting in speed limits and we're really still mostly ignoring the other one and what's likely to happen then is the cars will go to the other highway and when they crash, there's a lot more of them to crash into each other. It's a lot more congested. So we can't have the capital requirements debate in a vacuum from the parallel banking system.

AYRES: Our last speaker is Roberta Romano.

ROMANO: [[CLICK HERE TO VIEW SLIDES](#)] I'm here to be our provocative speaker. And some of the focus of my remarks will be a follow-up to Andrew's. The focus of my remarks is going to be two policy proposals that are related to capital regulatory reform and, obviously, I'm not going to have time to discuss two in detail. The first reform is introducing diversity and experimentation into Basel and the harmonized international capital requirements. What I'm going to talk about is why I think that would be a good idea. My proposal is process-oriented, it's a very lawyerly proposal that is in the reading materials on how we would procedurally implement diversity with a peer review process within the

framework of Basel. And I'm going to talk about why I think it would be valuable to do that. The other reform I want to talk about in a little more detail is on reducing excessive risk-taking by banks through restricted equity incentive compensation coupled with higher capital requirements. This is joint work with Sanjai Bhagat and Brian Bolton, building on earlier work that Sanjai and I presented at the very first financial crisis conference we did here several years ago.

Why regulatory diversity? Obviously, this is the opposite of the approach that Andrew was advocating, that: everybody that does the same thing should be regulated in the same way. And the first reason or one of the important reasons for diversity is reducing regulatory error. This might not be an error in the regulation when adopted but as things evolve, some regulations become inapt and a peril of harmonization is that if we have that, then it can increase systemic risk because if firms are incentivized to follow a particular pattern of business strategy by regulation, if it's flawed and they're following similar strategies, then the firm failures would not be restricted to a few banks or banks in one country but they became global and the example, that made me start thinking about this, is financial institutions levered up on Basel preferred securities, mortgage backed securities, and their opacity set off the panic in the shadow banking market, triggering a global crisis and was something that could have been more localized if banks worldwide were not following similar regulatory-induced strategies. Obviously, there are many reasons why banks may follow similar strategies besides regulation, but it could exacerbate the problem. With regulatory diversity, there is a chance that not all regulators will be following the same policy and thereby make the same error and correlatively, hopefully, not all banks then will be following the same strategies so, perhaps, financial distress will be more localized.

The second argument or rationale for why diversity would be valuable is to generate more information. It would give us a better sense of what works best in bank regulation if we could compare the performance of banking systems operating under different regimes. Obviously, controlling things across nations will never be perfect as in a randomized scientific experiment. But this is an area in which there is much we do not know. There is considerable uncertainty concerning how best to measure risk. Systemic risk wasn't even a focus of much attention before the crisis and people are now just coming up with different measures. It's also very difficult to identify what will be future sources of risk, so we're always regulating for what the past crisis was, and we do not know what the optimal capital requirement is.

The state of knowledge also quickly obsolesces in this area because regulations that are appropriate when enacted may no longer be appropriate as the environment changes and new products are introduced. If we think about mortgage regulation, the less benign argument of why mortgages were preferenced under Basel is because of national policies favoring housing. But if we took a benign view, back in the '80s, most mortgages were plain vanilla mortgages where people put a lot of money down, and the ratio of their income to the mortgage payments was pretty high and so we thought they looked safe compared to corporate loans. But, they evolved into a very different type of product, subprime mortgages. Although people thought securitization diversified the risk, it turned out it was not localized risk and that housing issues could be national. Over time, what might have made sense at the beginning didn't make sense thereafter. And w the changes are often rapid. Regulatory diversity gets at that issue. Moreover, the concern is dynamic uncertainty, because the regulated respond to regulation. We know they're going to respond but we can't predict

necessarily how they're going to respond. It may not be a linear response, and that would exacerbate the risk of regulatory mistakes from harmonization. The argument here is that diversity would improve the quality of decision-making as international financial regulation would evolve through informed experimentation.

As an example, Thomas Hoenig, Vice Chairman of the FDIC, has been arguing, that we should scrap risk-weighted assets and move to a leverage ratio, going beyond what Mike was saying that Sheila Bair and the FDIC were thinking about when Basel II was being adopted and that would just be impossible to do under Basel. You'd be hard-pressed to make such a change and comply with Basel. My suggestion is to graft onto Basel a way that, within the Basel framework, if all of the regulators in the U.S. wanted to adopt Hoenig's proposal or some other country wanted to do that, the country would receive approval to deviate from Basel rather than have to retain a risk-weighted approach.

Let me shift gears a bit and talk about our restricted equity compensation proposal. We also think that capital requirements, as Mike mentioned, are there to absorb losses, and our proposal is that incentive compensation for executives of financial institutions and employees who are in a position to make decisions that substantially impact a bank should consist solely of restricted stock and options where, by restricted we mean that the shares cannot be sold or the options exercised until a few years after the individual's last day at the firm. I don't have time to go into the details but we would handle some of the concerns one might raise over the proposal, such as liquidity (how can the individuals cover tax liabilities from receipt of the compensation), or early departures (individuals might quit early so as to realize the gains), by allowing a modest amount of the compensation to be recognized or liquidated annually.

We would couple the restricted equity proposal with higher capital requirements or capital structure reform, whether it be increased equity capital or the use of contingent debt securities. Why do we have that view? Our argument is that the restricted equity proposal better aligns the financial incentives of the individuals in the bank with firm value maximizing than pre-crisis packages, where although some senior people had pretty long-term, more restricted equity, employees could benefit from high-risk profile projects that had immediate positive payouts or short-term positive payouts and at longer term, negative future payoffs. But, of course, as everyone has mentioned, there's a well-recognized moral hazard problem that equity-based incentives, such as the restricted equity proposal, can lose their effectiveness at mitigating excessive risk-taking when the firm is near insolvency. This is a particular problem for banks, where the short-term creditors, depositors, are insured, and the longer-term ones expect to be bailed out, particularly, if they're large banks, so that any monitoring by bank creditors compared to creditors of nonfinancial firms is going to be less. The argument regarding capital – this is the absorbing loss view of capital that Mike discussed – is that by having higher capital it reduces the probability of a long tail event and thus the probability that the bank will be near insolvency, so that we can maintain the effectiveness of equity incentives, which work well in most context when we're thinking about solvent firms, that's where this comes into play where capital's really not what's affecting the firm. Most banks will hold more capital than the minimum required. They don't want to be subject to intervention by their supervisors. We think that these are two pieces that are necessary for reducing excessive risk-taking by banks.

Let me say a bit about increasing capital. We would require higher capital, of something more than the current, as well as expected increases under Basel III to 10% or a

little bit more, but we're partial to adopting a simple leverage ratio rather than the risk-weighted asset ratio approach. Here are some facts we would note in support higher capital. Before deposit insurance was adopted, U.S. banks held more capital; the market measure, what markets required of banks, was closer to 20%. There is also data that in the U.K. before World War II, markets required banks to hold much more than 10%. Andrew Haldane of the Bank of England provides data that the leverage ratio back then and until the 1960s what it is today. In addition, some studies have tried to estimate what would be the decline in risk-weighted assets from specified shocks. They estimate that a 10% decline in those assets could occur in 1 in 40, that is, every 40 years. Some of you might say that's a long term and we shouldn't worry about it and, of course, not all of the assets of the bank are risk-weighted. But that figure makes us worried about capital requirements of 10% or less, particularly because there's a lot of manipulation in risk-weighted assets. And we think the more complex calculation of that increases regulatory arbitrage possibilities. There, of course, are regulatory arbitrage possibilities no matter what you do. You'd have to have the asset categories so granular so that every single asset had a weight to avoid, which is surely infeasible. But we think that risk weighted capital also makes it more difficult for investors and regulators to evaluate bank capital and monitor compliance than the simpler leverage ratio that doesn't take the riskiness into account. But researchers have looked at, leverage ratios compared to risk-weighted ratios to see which firms performed better during the financial crisis and the capital ratios that were associated with better stock performance were the simple leverage ratios not the risk-weighted ones. That suggests that investors perceive the leverage ratio as a superior indicator of banks' portfolios' future risk, or at least that was the only thing they could

understand about the bank's capital structure and they couldn't really evaluate the other one. We thus think that is the direction to go.

We don't advocate a precise level in our paper and, in fact, we were not thinking of the 30% or higher that is the Admati proposal. We are thinking of 15% or 20%, but our view is that we really don't know what the optimal capital level is and, in fact, that level changes over time and it changes with the nature of the assets. Andy Lo has a paper on this issue that we've provided in the conference reading materials that he'll talk about later this afternoon and regulatory diversity would, in our view, assist in ascertaining what level of capital makes sense or what type of capital ratio makes sense.

Let me conclude with saying a word about an alternative that we present for how to increase capital besides directly requiring higher equity capital. There is a lot of interest in, and discussion of, using contingent convertible securities, CoCos, for this purpose. CoCos are basically debt that converts to equity, on specified adverse states of the world that increase the probability of insolvency. They're difficult to design. There are all sorts of issues about how you would design the right CoCo. The idea is, that even though it's going to be expensive debt, because there is a risk that you're not going to be a debt holder in adverse states of the world, it is still cheaper than equity, I've been completely convinced by Andrew Metrick and Gary Gorton that there is this friction concerning the liquidity premium related to bank debt and that M&M is not completely applicable in this setting, even apart from congruent regulation of shadow banks. That is, you don't want banks to have no debt in their capital structure. But because that's a story about short-term debt, that would not pose an objection to CoCos, which are longer-term debt, and not intended to replace or restrict deposits, the bank debt used for transactions. Assuming you could design the trigger for conversion to equity

correctly, they would incentivize managers to act more conservatively in the beginning, so that they're not going to get into the zone where conversion would be triggered. The CoCo proposal of Charles Calomiris and Richard Herring would say that we should structure it so that the conversion ratio is so punitive, that is, the conversion ratio is so favorable to the debt holder, that the bank managers will just issue new equity to avoid conversion. This is intended to resolve the debt overhang problem, that when a firm is close to insolvency, it cannot issue new equity capital. No one wants to buy the stock because it's just going to feed the senior creditors up the line, there is this debt overhang and they are going to be diluted so the managers don't want to issue equity. The idea of Calomiris and Herring is to set a trigger that is so dramatic that the stock would be even more diluted with a CoCo conversion so that they'll issue the equity before that happens and it will absorb the loss. And our point is that the combination of somewhat higher equity capital than we have today plus required CoCos is basically the equivalent of having a direct higher equity capital requirement.

AYRES: Great. Now we have plenty of time for questions. We have microphones on either side, on either aisle, and if you'd like to ask a question, please come forward to the microphone and I'm going to collect three or four questions at a time before having comments from the panel. I will just begin, and take the privilege of the Moderator. We have, I sense, a disagreement at least between Andrew who said that he wanted similar rules and congruence and Roberta who embraced diversity and so do we have the right mix of diversity versus congruence in Basel and Basel III, IV, V as we move forward? Andrew, I could see that even if you want to have some coverage, it doesn't have to be congruent regulation. Noncongruent regulation may be more resilient from capture, which we might also worry about. There's been a fair amount of that in certain banking regulation and you might embrace variances of

different algorithms since we don't know which one works. You might even have randomization that has ex-ante congruence but ex-post, each of you are going to take your chance at which of the three weighting algorithms that you're going to use. But don't answer now. Let's take some more comments, questions. Yes, sir.

SOMMER: Joe Sommer and what I'm about to say is not necessarily the opinion of the Federal Reserve Bank of New York or any other component of the Federal Reserve system. Two things, one for Andrew – you're too modest because there's another big violation of M-M and those are risk-shifting products, like derivatives. Two, if you believe bail-in actually works, the entire liability stack of the parent serves the role of capital. Admati and Hellwig should be just delighted because they already have what they want and why does anybody of the first order really care about the composition of the liability stack and that's a question.

PODOLYAKO: Ilya Podolyako. My question is almost exactly the same. If the market is willing to accept CoCos as instruments that there's demand for, and the market is willing to accept perhaps with a fixed maturity, or unsecured debt that is clearly debt but is unsecured, who cares? As long as it's a ratio of market instruments to deposits insured by the FDIC, what difference does it make what the form is?

AYRES: And one more intervention and then we'll turn it back to the panel.

SALZMAN: Paul Salzman from the Clearing House, one of the few industry representatives in the audience. It's just remarkable how on a panel involving capital and liquidity no one has even mentioned the word stress testing, because the fact of the matter is that the binding constraints for financial institutions not only in the United States but around the world, certainly on capital and probably increasingly so on liquidity, are the CCAR

[Comprehensive Capital Analysis and Review] tests, which far exceed the prescriptive numbers that we're talking about, so I would love to hear your thoughts on stress testing but my question really is in 2009 the G-20 issued a statement recognizing the counter-cyclical nature of capital rules where it was very clear in which they said let's be mindful of the impact of capital and economic recovery and keep capital levels relatively low. Obviously since then, there's been an obsession with capital and we've gone in the other direction. If you take a look at the Brown-Vitter legislation or any of the other sort of prescriptions that call for 15%, unrisk-weighted capital levels, you're talking about a deleveraging of close to 2-2½ trillion dollars from the system. So the question is why, for both Andrew and Roberta and others, why hasn't there been enough discussion about the countervailing consequences of raising capital to real economic growth and why is that so debatable? Why isn't it clear that there is a trade-off and then let's at least within the context of that backdrop talk about what the right levels are.

AYRES: Panelists, have at it.

CLAESSENS: On your first question, similarity versus diversity, I would tend to be in a camp a little bit more that we need similarity across the world because having diversity leads to regulatory arbitrage; also just think of a bank operating in multiple jurisdictions, the transactions costs associated with that. Having said that, do we want all the prescriptions that we have in the current regulations in terms of Basel III and what-have-you? Maybe not, but this is the outcome of all these subcommittees that give us so much prescriptions and not focusing on the big picture issue, so I would say let's have similarity in the big elements and then allow for diversity in some minor elements. Yes, of course, actual diversity can be good.

Diversification along Basel II didn't do anything because everybody was doing the same thing but diversity in business models, banks, small/large, I think, is a good thing.

On a few of the other questions, one was if the market accepts CoCos, other equity claims, and what-have-you, isn't that the test we want? I think the problem with the market test is it's not sufficient, because we have these too-big-to-fail institutions, they're getting implicit subsidies, that people have estimated to be 40/50/60 sometimes 100 basis points. Without having solved that, I think we cannot rely on the market. And beyond that there are other market problems, as we see that there is systemic underestimation of risk. So I would not necessarily go down the market test alone. We need to have a view as a policymaker/regulator what this level should be.

One question on the stress test, I think if you were to continue to rely on stress tests and there's been a mixed success – the U.S. has done better but Europe has not done as well to put it mildly – I don't think we're going to solve this problem. The stress test is a good tool. We should use it from time to time but in the first instance, the market has to do this, the institution themselves, first of all, the market has to discipline. The stress test is an add-on. It should not be a major component. You also mentioned deleveraging. I think this has been the problem with capital requirements as we put them on the table. We ask for a higher requirement but we don't tell them how the banks should do it and the bank then is inclined to deleverage because that's a cheaper way to do it. You want them to raise capital, so all the discussion we've had so far has been the steady state where do we want to be 15, 20, 30% but we have ignored the high cost of raising capital in the short-term, which has led banks to deleverage. Now, you can ask for capital in absolute amounts and some countries have done that and you do get a better outcome as a consequence. So we should shift the debate in the

short run to the amounts of capital to be asked and in the long-run, we should stick to the ratio debate.

AYRES: And then we're going to Michael, Roberta, Andrew.

KRIMMINGER: I'll be very brief. I think the diversity in capital regulation, to me, is a little bit problematic. I certainly agree with everything Stijn just said about the diversity in operations and other types of things. One of the things I think we have to remember too is the capital regulations are not imposed or implemented in the same way in probably any country and that could also be said within the United States. As a result, there already is diversity in how capital regulations are applied. In fact, I would not want to go back to a world in which there was complete diversity because we run the risk of having a flight to the bottom, if you will, and it would come back to the same reason that we originally had wanted to have international capital standards in the first place - that there was complete diversity and inconsistency. Certainly, I think the idea of having diversity in structures and maybe not being quite so prescriptive would be a good thing because there is a certain level, as Stijn just mentioned, and as Roberta also mentioned, of inordinate complexity to the capital standards now that make it almost impossible, if you think about it, putting it aside for a second, the largest institution that everybody is talking about, and you're talking about smaller institutions of the United States, the complexity of trying to deal with that with a small staff is a major tax, if you will, on the small institutions themselves. But even for large institutions, the amount of resources developed and utilized and implemented to try to deal with these complex capital standards is huge, so that, I think, would be a concern.

Regarding bail-in and liquidity, it is true that the entire capital and liability stack is actually placed at the disposal of the regulators in a bail-in context. Certainly, I think, that is

true, Joe, when you're talking about bail-in just before or during resolution. The reason is that in an FDIC resolution, all creditors may be haircut from equity all the way up as high as you have to go in order to deal with the losses. I think the type of capital doesn't matter, however, because, certainly in the crisis, if you looked at it in terms of a simple leverage ratio, a more complex leverage ratio, or risk-weighted assets with risk sensitive capital levels, in a crisis like we had in 2007 and particularly in 2008, the market was looking for something to grab onto. I think we can make mistakes if we draw too many conclusions from that 2008 crisis in terms of normal capital regulation because at that point, really, your level of capital almost did not matter because no one in the market had any confidence about what the assets and liabilities of the balance sheet of the banks were. If you drew the conclusions from that, then you could draw a variety of diverse conclusions about what capital regulations should be, but I don't think that should be the appropriate capital regulation generally speaking.

AYRES: Roberta, isn't regulatory arbitrage a concern?

ROMANO: I didn't give the details of my proposal, but I think it's not. Let me first provide an outline of that proposal: There is a peer review process in which a nation that wanted to do something different, such as use a leverage ratio and not risk-weights for its capital standard, would put that proposal up with some economic data or simulations (because it wouldn't yet have an empirical basis to show the effect) to meet, and the review standard that the proposal would not contribute to global systemic risk. The burden of proof is on the committee to reject rather than approve it. But approved departures from Basel would be subject to ongoing monitoring and periodic review. The ongoing monitoring would look for red flags, whether concerning an increase in systemic risk, in conjunction with a periodic review to assess the impact. Suppose, for example, when a proposal departing from Basel

was approved, the nation provided simulations and looked at the interconnectedness of its banking system and what its banks do, and projected “X” as the impact on global systemic risk. Then, after three years or so, in the periodic review we could see, whether the actual impact was the projected “X,” or not. And If another country feels the departure is adversely affecting it, it could also petition for a review.

I would combine this review process, which I call a diversity mechanism, with the existing Basel approach to cross-border supervision and regulation. Under the current rules an international bank group, is regulated by the parent entity’s home state. The extent of the host countries’ authority over local units depends on the legal form of the entity. If the units are branches, which do not have a separate legal identity, they’re regulated by the parent’s regulator, but if they are separately incorporated subsidiaries. In the U.S. we make the local units of a foreign banking group be subsidiaries if they are to engage in retail operations, so they are subject to our regulators’ supervision. There’s a bunch of technical exceptions, I am loosely describing the principles; the point is that branches are subject to home and not host regulation, in contrast to a subsidiary. But Basel lets host countries regulate units under certain concerns, such as inadequate home regulation. And some countries just impose the same regulation on branches that are imposed on subs. Others require local incorporation. What would happen with this proposal is that Basel countries, which do not like a bank operating in their country that’s subject to a non-Basel regime would use their authority to require the units to be subsidiaries within their country. Similarly a non-Basel country, such as the one in my example imposing a leverage ratio, is not going to want a local unit to be using risk-weights that they think are meaningless, and not actually capturing capital and they would say, okay, you have to follow our rules, we’re going to make you be sub., So we

would see an increased use of subsidiary forms. Now, of course, that's a cost to an international bank, apart from the complexity that your subs are going to be doing something different, as there are economic reasons independent of regulation why you might want to use a sub structure or a branch structure. But these costs, in my judgment, are worth having diversity in the system. More important, the local incorporation approach limits arbitrage possibilities because all banks in the same jurisdiction are subject to the same rules. If you try to move transactions to units in the non-Basel country, if your home country is under Basel, at the consolidated (world) level you're still under Basel, and that's going to limit your ability to move these things around, because you will still need to hold Basel capital against them. You'd have to move your headquarters to the other country and do your transactions there for regulatory arbitrage to work, and that also means the cost is on the country that's doing this. They're going to bear the cost because these international banks may not want to open a local unit if it has to be a sub, or otherwise too costly because of the different regulation, so the nation is going to internalize that cost. So I think that limits the possibility of arbitrage. The other thing I would say about regulatory arbitrage is that the proposal is to allow departures based on the impact on global systemic risk. The review committee is not going to approve someone who says, oh, well we want to have zero capital requirements and no compensating arrangements such as increased supervision or other regulatory instrument. That kind of proposal, I would argue, is not going to be approved. In addition, a proposal that would be approved for a small country whose banking system has no international connections, is not going necessarily going to be approved for a country that has large multinational banks that are interconnected with large multinational banks in other nations, as the impact on global systemic risk would differ. I would say that is another protection.

Now, of course, crises sometimes happen and you're just over a ledge, right, and that's a risk. That's a risk with the current system, too. I would point out that even though we have harmonized capital requirements, there are a lot of factors that affect banks' cost of capital that have nothing to do with what we harmonize. For example, deposit insurance, the tax system, the rate of savings of a population, and so forth. The report of a working group under the Basel committee that was asked to assess Basel I had a section on international competitiveness and if you look at all their data, they said, well, we really haven't equalized the playing field, because capital requirements are just one of many things that matter. So I think it is simply not true that if we don't have harmonized capital requirements it's going to be the end of the world. It will be more expensive for banks and for regulators. You'll have to have more memorandums of understanding between national regulators, which don't work in a crisis anyway, but it would be more important to get them to work, with regulatory diversity.

On the issue about what form of capital, why have any requirements? Subordinated debt didn't work that effectively in the recent crisis, to absorb losses. I think that's why people have turned to thinking about CoCos. An issue about the market and CoCos is that there are different reasons why you have them, and that affects the product design. You might want them for a bail-in because we don't want our taxpayers bailing them out. We might want them for credible signal of increased probability of default or excessive risk, so regulators know in advance and can take appropriate action or the Calomiris and Herring proposal that's worked about managers not issuing equity due to the debt overhang problem I mentioned earlier. I think that if it's not clear what the reason a management has when issuing the CoCos and if you were just worried about absorbing loss, you might want a

particular instrument design. That would be the argument for why there are regulatory capital structure requirements and we do not just say you can do whatever you want. But I'm not necessarily averse to, the suggestion that people had about that.

I'm going to throw in one question for Andrew on the money market funds since I know we have some representatives from the sector here, in case they may not want to raise this question. One could say why do you need the same exact capital requirements for the funds if they have a different organizational structure than banks, although I know that's not exactly what you mean.

METRICK: Thank you.

ROMANO: Let me be a devil's advocate and make a broader statement: if we look at money market funds their assets and liabilities are both short-term. A bank is doing intermediation that's got long-term assets against short-term liabilities. Also, mutual funds are not leveraged. They're not allowed to be leveraged, so it's not clear that they have to have the same regulation as banks. The reserve fund had too much of its portfolio in Lehman paper, so you could strengthen diversification requirements to prevent the problem, and it is not clear you need the same regulatory structure for them. One could say that there might be different ways that are beneficial to get the same economic function, and so I think there's a tradeoff about what to think about this

METRICK: Sure.

ROMANO: I'm not articulating it as well as someone who knows more about mutual funds than I do, but I think that's an argument.

AYRES: All right. And we'll hear from Andrew and we might have time for more than one person, so feel free to queue. Andrew?

METRICK: Okay. I'll try, that was very good throwing that in at the end, so now I don't have any chance to go after your other proposal.

ROMANO: You can.

METRICK: She's not a Sterling Professor of Law for nothing. It's wonderful having Roberta down the street, so I look forward to a long debate that we will continue on the diversity thing and, actually, it's a well thought-out proposal. There is nothing simple that's missing from it. I would say that I would generally agree with the other panelists. I do think that, but it's ultimately an empirical question, so we can debate that. I think it's pretty easy. AIG set up subs everywhere to do all the things they weren't able to do here.

ROMANO: Well, who is regulating it?

METRICK: Well, in the Channel Islands, there's not a lot of regulating, right?

ROMANO: Yes. That is the question I'm trying to get at.

METRICK: I think that that is an issue but also I would say the premise to me that, that we would experiment and find an optimal way to do these things. I don't think, really, it's anything looking for anything optimal. I think a lot of these systems would be relatively equivalent to each other. It's just trying to avoid the race to the bottom in the regulatory arbitrage but we'll continue this discussion over a long time. There were a lot of good questions that were raised I just want to briefly touch on.

On the long-term debt with bail-in issue, I'm in complete agreement. Long-term debt that has a nice, simple bail-in structure is absolutely as good as equity, but it's also just as costly as equity; to the extent that there's a small cost, because it's not going to get the convenience yield of short-term bank debt. In the end, that's really where the rubber hits the road. It would be great because I think the banks would be much happier and they've shown

they'd be much happier to accept things that are debt-like where they could get the tax benefits and there would be automatic bail-in and that is a nice improvement but, ultimately, if you make them have 30% or 40% of that, you still have the same bite that you would have elsewhere.

There was a question about stress tests, I think stress tests are a wonderful innovation and I hope we keep pushing them. I think it's just too early to know whether they're the whole answer and to the extent that it's the stress tests that end up being the binding constraint, that's only because we've established a baseline that the stress tests are comparing against. We still have to figure out what that baseline is. But I hope that stress tests continue. And a very important question, why don't we see enough discussion of the costs? On that, I think there is a lot of discussion of the costs and I think most of it is wrong and, since I'm personally someone who thinks that there are costs but the costs are effectively general equilibrium costs, they're not ones imposed directly on banks, it's frustrating for me that those are my allies. I think 95% of Anat Admati's book is right where she debunks what are most of the arguments about it being costly but when I talk to a lot of folks in the industry whom I respect on this, they know that these three arguments aren't right and there are other arguments that are right, but they also know that those three arguments are the ones that resonate, so they'll just keep making them publicly and that's frustrating.

On money market mutual funds, Gary Gorton and I are not at all suggesting that it be, that they be regulated the same as banks, that they have the same rules. It's just more that, in fact, money market mutual funds have rules that make them clearly safer than banks. There's no question about it and so their optimal capital level should be much lower than banks. I

don't think it should be zero. Saying they shouldn't be regulated the same as banks is not the same statement as saying they should have zero capital requirements, zero reserves.

ROMANO: But they're not leveraged.

METRICK: They clearly can get into trouble and they clearly can hold things that do not have zero risk-weights for banks, so if that's the case then there should be some form of congruence between the two and I don't think we need to reinvent the wheel. We would just have an activity-based regulation, which is what works in many other areas and you don't regulate the entity or the legal form, you regulate the activity and that's the theme and I don't think that means it's a straw man to say, oh, well, you know, they're different and so we shouldn't regulate them the same way. We are not saying it should be the same exact things. Okay, that, that was it.

VERRETT: J.W. Verrett from House Financial Services. I just wanted to ask about the equivalency of unsecured debt and CoCos potentially. I just want to ask, doesn't that assume that the market expects that the FDIC will be bound to the architecture it's designed for the implementation of OLA, the single point of entry approach (SPOE)? If the market questions whether, that it might be possible that, the FDIC would panic and just dump massive amounts of liquidity like we did in '08, then you would think the CoCo pricing signal would be much more effective than the unsecured debt pricing signal. I wonder if the FDIC has looked at spreads – it seems like there's a great event study to be had and so I probably shouldn't be sharing this idea – that the implementation of the SPOE approach and the debt stack and ideas that have flowed out of FDIC on that, you would think those are great events to study for the spreads on unsecured debt. So I just throw that out there for thought.

AYRES: Yes, sir.

ALBRECHT: Matthew Albrecht. You mentioned some of the benefits of market discipline and, some of the panic that's caused by a lack of transparency. It seems like there's discussions around accounting convergence around the globe but there's not a lot of talk about some of the disclosure convergence and a much greater level of disclosure that could be really beneficial if we want to allow the market participants to really be able to gauge risk at sometimes at a faster speed than some regulators.

AYRES: Yes, sir.

ROITER: Eric Roiter at B.U. Law School formerly of Fidelity but I'm speaking totally objectively here. I think that it's one thing to say that there are some similarities between money market funds and what banks do and I don't think anybody would argue that. I'd also suggest that there are some similarities between butter and margarine and, you know, you put them on toast and they are marketed and advertised and packaged quite similarly but, given their constituent ingredients, you wouldn't think that there would be much in common in regulating margarine and butter. I'm no biologist, but you wouldn't, say you have to homogenize margarine because I think it just doesn't apply. This is, getting to the point of capital. Money market funds have 100% capital. The only claims on money market funds are equity claims and it's almost a contradiction in terms to think of, what, some kind of capital that is subordinated to common stock? Now you could say, well, the expectations of those who hold those equity claims are comparable to the expectations of those who have deposit claims on banks. The answer to me is precisely opposite of saying, well, let's reinforce those expectations by treating them as if they were depositors. No, we should not reinforce that. We should force them to live with what they have, which are equity claims. For example, Fidelity has a money market fund that's 100 billion dollars. Where are you going to get

capital that would be subordinated to common stock? If you only obviously had a 1% requirement, you would have to come up with a billion dollars of capital subordinated common stock. That's a nonstarter. It wouldn't happen.

AYRES: I'm sorry to cut you off but we're running long. Could we...

ROITER: Okay, I'm sorry. I just want to end with this distinction. I think the real distinction is locked-in capital versus unlocked capital and that's what differentiates money market funds, I will concede, from ordinary corporations, so those who advocate regulating money market funds should think about that rather than similarities with banks.

AYRES: Thank you. And our last comment, question?

BARZUZA: Michael Barzuza. Yes, on a conceptual level, I think that the diversity idea raises also the question of whether there is homogeneity among the players themselves, and the question would be who is going to choose who and who is going to push for the regulatory arbitrage, if, in order to get to regulatory arbitrage you have to be aggressive? We should perhaps look into who are the players who are going to choose this path and if those are the players for which these choices are more costly. This is another thing that we need to think about.

PANEL II: Bank Transparency and the Financial Crisis

KOHN: Let's get started on our next panel. There were a lot of failures that led to the crisis that we're still emerging from right now but one of the many was a lack of market discipline. Private counterparties were not policing to whom they were lending and the risks they were taking from others. There was a lack of market of discipline. I think there were a lot of reasons for that; complacency and some other things as well. But I think also one of the reasons was that you had complex, opaque instruments being held by complex, opaque institutions that interacted with each other in complex, opaque ways and one of our many challenges, is how to get the private sector to reinforce the efforts of the regulators and the supervisors to make the system safer, to police the system better. And there are a bunch of things we need to do about that. We need to make sure the private sector has their funds at risk, the too-big-to-fail issue, but they also need to see and understand the risks they are taking when they enter into contracts with other people. That brings us to the current panel, which is about bank transparency and disclosure, and the effects of the financial crisis. I think there are a couple of parts here. One is what the banks tell the public and tell their counterparties about what they're doing and why they're doing it and another one is about what the regulators, the supervisors, the central banks, tell the public about their interactions with the private sector and we've got a panel to explore both of those aspects here and some of the tensions involved in them. We'll begin with Bob Giuffra and then we'll go to Fred Schauer then Henry Hu and end up with Gary Gorton. Bob.

GIUFFRA: [[CLICK HERE TO VIEW SLIDE](#)] Thank you very much, Don. I'd like to offer a perspective on bank transparency that may be a little different than others in the room. I'm not a former bank regulator. I'm not an academic, and I'm not even a bank

regulatory lawyer, although I did go to Yale Law School, where I was taught by Roberta Romano. I'm here because I'm a litigator who has litigated bank transparency cases.

I have one basic overriding message: we do not want judges, no matter how smart or well-intentioned, to be deciding when information about banks should be disclosed or kept confidential.

This is an issue where the normal political labels don't apply. Rand Paul beats the drum for more disclosure of confidential bank information. Traditional liberals tend to be more supportive of the Fed's views on disclosure issues. I have young children so I know we live in a time when there literally are no secrets, and I think, ultimately, we will see more and more Fed and bank transparency. The question is where should the line be drawn, and who should be drawing the line.

In my experience, courts are probably the worst place to decide these Fed and bank transparency questions. First, judges are, to say the least, unpredictable, and there's a danger in allowing one judge to be bank disclosure czar or even a panel of judges. Second, and we had this experience in the Bloomberg Freedom of Information Act case, in which I was involved, legal disputes over Fed and bank transparency can become moot if a court orders the information to be disclosed before an appeal can be decided.

Finally, it's nearly impossible for a non-expert court to decide the policy issues that are involved. When these issues get litigated, the positions are extremely predictable. The banks and the bank regulators will say that the bank financial information cannot be disclosed, and if the information is disclosed, we risk a run on a bank, and, in support, they cite the handful examples of disclosure causing a run on a bank. On the other hand, those who support real-time disclosure will say that these bank runs don't happen very often, and it's

speculative to assume transparency will result in bank runs. Instead, proponents of transparency argue that greater transparency will result in more efficient markets.

In listening to these competing arguments, the typical judge will just throw up his or her hands or make a decision in a knee-jerk way. It's really hard to get to the bottom of the issue because it's difficult to know what's going to happen until the information is disclosed. Every bank is different, and the disclosure of confidential information from one bank might be a ho-hum event. But for another bank, disclosure might set up off a bank run. Regrettably, these issues are not the sort of stuff that can be the subject of verifiable, expert testimony, because, again, there haven't been many bank runs that have been caused by the disclosure of confidential information.

Since it's clear that courts shouldn't be the ones making transparency decisions, why don't we leave it to the Fed, and that's traditionally been the way these issues have been resolved. And, all other things being equal, the Fed and other bank regulators will lean in favor of confidentiality, because they justifiably don't want to run the risk that there will be a run on a bank if financial information gets disclosed.

Now, ironically, in my view, and I've actually worked in all three branches of the government, the best forum for deciding these issues is probably the most dysfunctional, the least popular, the one where people think that the nuts reside, and that's the Congress. Let me tell you why. First, Congress has the virtue of being able to promulgate clear, binding, and national rules. Second, everyone gets their shot at trying to persuade Congress where the line should be drawn; whether it's the press, hedge funds, banks, bank regulators. Congress is the most democratic branch. And, third, as I'll describe, there is actually a way for Congress to

get it right. The problem is that Congress generally has little interest in bank transparency issues, and getting Congress to focus on these issues is a challenge.

Let me speak about just three types of court cases involving bank transparency. The first is a very recent decision issued by Judge Scheindlin of stop and frisk fame in New York City, calling into question the bank examination privilege involving the Bank of China.

Second, I want to talk about several cases that have been filed by plaintiffs' lawyers, claiming that banks committed securities fraud because they did not disclose the outcome of government investigations before the government had reached a conclusion about the outcome of those investigations.

Finally, I'll talk a little bit about the Bloomberg FOIA Litigation, which sought information about the emergency loans that were issued by the Fed during the financial crisis. I had the privilege of representing the Clearing House whose members include a number of the world's leading banks. Paul Saltzman, my client, is in the third row of the audience today.

In that case, the Second Circuit issued what those of us on the Fed and bank side thought was a misguided decision and punted. The Second Circuit recognized that the case involved significant issues of competitive and other harm to banks, but decided the case on extremely narrow, Freedom of Information Act grounds. Specifically, the Court ruled that the financial information that banks provided to the Fed in connection with obtaining the Fed emergency loans was not actually information obtained from the banks, but became Fed information once it was submitted to the Fed, and, therefore, was subject to disclosure. While this case was on the way up to the Supreme Court, Congress acted and essentially mooted the issue. In doing so, I think Congress did a good job of striking the appropriate balance between confidentiality and disclosure of bank information.

In the Bank of China case, Judge Scheindlin overrode the longstanding bank examination privilege and ordered disclosure pursuant to a private subpoena of OCC exam materials. That was troubling because if there's any privilege that's longstanding, it's the bank examination privilege, and in her decision, Judge Scheindlin actually questioned the very premise of the bank examination privilege, which is the importance of confidentiality and fostering the free flow of information between banks and their regulators. And, it's troublesome when one federal judge can question a premise that has been reflected in literally dozens and dozens of cases going back to the 1930s that bank examination involve an iterative process, and we want to encourage banks to provide full disclosure to their regulators, like when someone's giving penance to a priest.

Judge Scheindlin's ruling confirms the risk when judges decide these transparency issues on a case-by-case basis.

Under the securities laws, banks and other companies have to make mandated, quarterly disclosures. Once a bank learns of information calling into question its previously stated financial information, the bank can't hide that information. But these issues become less clear in cases involving an investigation into misconduct at a bank.

We've seen some investigations of that sort in recent years, not impacting the bank's historical financial performance or results, but otherwise involving misconduct by bank employees, perhaps vis-à-vis customers. Some of these investigations have made the front pages and, as someone who litigates these cases. I can tell you that you often don't know until the very end how an investigation is going to come out.

At the start of an investigation, sometimes it looks like it's going to be the worst thing ever, and then people look into the facts and the bank and the regulators drop it. In other cases, the investigation gets further down the road, and the bank has a serious problem.

In one recent case, plaintiffs' lawyers charged a major bank with failing to disclose a Wells notice. A Wells notice is a notice that a staff of a government agency issues to a bank or any other issuer, saying we're considering bringing charges against your entity. The fact that there's a Wells notice doesn't mean that the agency ultimately will take action. In another case, in which I was involved, plaintiffs charged that a bank disclosed the investigation but did not disclose wrongdoing by the executives in real-time, and that this non-disclosure was securities fraud.

In a vacuum, people will say it makes sense for banks and other issuers to disclose everything they know about investigations in real-time, but such disclosure can cause all kinds of market disruption if it turns out that the investigation ends up going nowhere. In most cases, courts have drawn sensible lines holding that banks and other issuers don't have to disclose the Wells notice and don't have to accuse themselves of wrongdoing before the end of a government investigation.

Let me say a few things about the Bloomberg case. Everybody knows about the extraordinary steps that the Fed took to stabilize our financial system during the recent financial crisis. During this extraordinary period, the Fed disclosed on a real-time basis a lot of information about those programs, including the aggregate lending amounts. Historically the Fed did not disclose the details of individual bank borrowing from the Discount Window, and that's consistent with the practice by bank regulators around the world.

There's a widely recognized concern that banks will not go to the Discount Window, if such borrowing is disclosed in anything approaching real time, because of the stigma that might be attach to such borrowing. There have been several well-known cases, one involving a British bank in 2007 and another involving Citibank's Asian branches in 1990 when, apparently, people thought runs were related to the fact that there had been publicity about a bank seeking access to the discount window. Obviously, the stigma of going to the Discount Window increases during a time of, economic uncertainty like we had in 2008.

In the Bloomberg case, the litigation started in, and the dates become important, when Bloomberg made a request in May 2008 under FOIA to the Fed for all of the individual bank lending information. Ultimately, the Fed denied that request, and Bloomberg brought suit in November 2008. The litigation went on for years until the Supreme Court denied the Clearing House's petition for writ of certiorari in March 2011, many years after the banks had borrowed money from the Fed.

During the Bloomberg litigation, both sides put out the well-trod arguments on either side of this debate, and I suspect we'll hear them in a few minutes. For me as a litigator, it was difficult because there was no discovery, there was no empirical evidence, there was no expert testimony, and if I had been a judge, I would have thrown up my hands trying to figure out what was the right result. The concern, of course, was that disclosure of this kind of information about individual banks would be very problematic, given the circumstances of banks borrowing from the Fed during the financial crisis.

I think and, let me end on this, how the case ultimately was resolved is instructive on how these matters should be resolved and, likely, may get resolved in the future. And, the resolution of the Bloomberg case confirms my broader point that Congress is the branch that

should be making these transparency decisions. While the petitions for rehearing were being heard by the Second Circuit, and those petitions were filed by both the Fed and by the Clearing House, Congress passed the Dodd-Frank law.

In Section 1103 of Dodd-Frank, Congress required the Fed to publish the information about the emergency lending programs it had put in place, and it required that that disclosure be made by December 2010, which was more than two years after the programs had been put into place. When I argued the appeal in the Second Circuit in 2010, the judges asked, “well, isn’t this information stale?” Obviously, the risk that disclosure of the fact that a bank has accessed Fed lending programs will injure a bank is greatest right after the bank borrows the funds from the Fed. The further away, the less risky disclosure becomes. If we had argued the case in the Supreme Court, in say 2011, I was concerned that the justices would pepper me with questions about the staleness of information about loans made in 2007 or 2008. Why does the disclosure of such dated information threaten the safety of banks?

In the Dodd-Frank Act, Congress set forth what is a bright-line rule. The Fed now must disclose Discount Window lending two years after the loan has been extended, when the information presumably is no longer market-sensitive.

Last night I went on the Fed website to see what had happened since the passage of Dodd-Frank, and I was amused that, by making two clicks, you can literally find out what banks have gone on to the Discount Window, in what amounts, and when the loans were made. This information becomes public two years after a bank borrows the funds, which I think is a sensible balance that Congress, and almost certainly with the Fed’s advice, struck between transparency and confidentiality.

Was the solution perfect? Who knows? But I think that the point is that the line was drawn, and it's a line that's a clear line and avoids the risk of having a different line being drawn for different banks in different circumstances by different judges. When the information was ultimately released, there was a one-day story in the New York Times, which discussed that a lot of foreign banks had received these Fed loans during the financial crisis, but that was basically it.

Since that time, I've never seen any stories where anybody has focused on the fact that the discount window information is available two years later. Some would say that this two-year delay is too long, and others would say, well, it's risky if you do anything less than two years. If you don't like the current law, I say go to Congress, it's the most democratic branch, and let them be the ones to draw a different line between transparency and confidentiality.

KOHN: Thanks much, Bob. I think Gary probably will have something to say about this when he gets to his turn. Fred.

SCHAUER: Okay, thank you. I feel like the answer to one of those IQ tests or SAT questions, which one does not fit and, in fact, the number of people who have snidely asked me something along the lines of what are you doing here or what are you doing on this panel. Although I will admit that I have a past that includes, a long time ago, an MBA in finance, some time as a securities litigator, and some time teaching securities regulation, that was decades and decades ago. I am here entirely as someone who knows a little bit about transparency, not as someone who knows anything about global financial markets.

Let's turn to transparency. As Bob talked about, much of the concern with transparency in this context started with concerns about the troubled asset relief program, TARP. Some of these concerns were about lack of knowledge by Congress and others about

which financial institutions were receiving TARP funds, also concerns about lack of knowledge by Congress, the press, and the interested public about what the recipients of TARP funds were doing with these funds. How much was distributed to whom and for what purpose? At about the same time, there were concerns about transparency in the context of Federal Reserve loans to banks, which in dollar amount vastly exceeded the amount of distribution of TARP funds and all of this was highlighted by the Congressional Oversight Panel, now Senator Warren, and some number of others, all being concerned about the lack of knowledge, about the lack of transparency in the context of these various different programs, various different ideas. Indeed, in its most recent report, October 2012, SIGTARP, the Special Investigator General for TARP, announced on the cover of its report that its mission was “advancing economic stability through transparency, coordinated oversight, and robust enforcement.” Who could argue with that? Well, let’s see. I note, of course, that nobody in the audience is wearing transparent clothing or carrying a transparent briefcase or unless you live somewhere near here in the famous Philip Johnson Glass House in New Canaan, CT, living in a transparent house. Transparency, which is, perhaps, an unduly, these days, favorable term or at least it assumes the conclusion, is really about the issue of who knows what about whom. And when we think of it in terms of who knows what about whom and why, we can reduce some of the temperature about questions and debates about transparency.

Let me talk about three of these tensions. First of all, we have the tension between transparency and privacy. One person’s transparency is another person’s invasion of privacy. Indeed, in this particular context, this comes up not only with reference to the privacy of financial institutions but also in the context of potential issues regarding the privacy of the various individuals, companies, and the like that are the recipients two steps away from TARP

funds and various others. That is, in so far as transparency or a robust understanding of transparency would suggest that there ought to be transparency about where the TARP funds and various other similar funds are ultimately winding up, we may at that point get to individuals. We may at that point get to smaller companies and it is at that point that we can understand some of the tensions between transparency and privacy. Indeed, if we think about this as an issue that may involve in part what we can call bank privacy or corporate privacy, we could also think of this as an issue that intersects the widely-debated issue over the last some number of years about the Supreme Court Citizens United case and the extent to which non-individuals possess certain kinds of constitutional statutory and moral rights that may be somewhat more contested when the individual rights are transferred into a corporate context. So if we understand that there is a transparency/privacy conflict, it comes up in this area. It comes up in the context of thinking about the extent to which transparency may involve some degree of sacrifice of someone's privacy and whether that's a good or a bad thing remains for consideration.

Second, there is the tension, and Bob came closer to talking about this, between transparency and confidentiality and, indeed, the Bloomberg case and some number of others raise this with particular interest and particular salience. That is, it is not surprising that we see that the very same press and media organizations that fight tooth and nail for transparency of governments and financial data are also the same organizations that fight tooth and nail against the transparency with respect to their own internal operations.

GIUFFRA: Often using the same lawyers.

SCHAUER: Often using the same lawyers. Yes, the same lawyers, the same words, the same language, the same metaphors and so on. We know this through debates about

journalists' privilege but as Bob talked about, privileges are a broader issue than just journalists' privilege. We have issues regarding doctor/patient privileges, patient/therapist privileges, priest/penitent privileges, back some years ago in the 1970s and there's still some of it, a fair amount of litigation regarding executive privilege, the extent to which there are privileges within the executive office and who gets them and who does not and so on. Ultimately, and Bob's point about stigma raises this, there are lots of settings in which transparency, despite the good it may produce at times, is decision-impairing or action-inhibiting. One of the same language and same lawyers that we see all the time is the ubiquitous phrase the chilling effect and, indeed, the press is fond of talking about the chilling effect with respect to their own internal operations. They are engaged in debates in which various government and non-governmental institutions are also talking about the chilling effect in terms of their own operations and so on. Indeed, it is worthwhile noting in this context that much of the current transparency of the Federal Reserve, in so far as there is such transparency, dates largely only to the 1990s, even though the Federal Reserve is a much older organization. There is now a considerable amount of interest in this question in Europe. Much of the research of an economist named Petra Geraats tries to show that central bank transparency is, in fact, an empirical matter conducive to the kinds of favorable economic outcomes that many people are pushing for. So that's transparency versus confidentiality.

Third, we have transparency versus independence. Transparency means that someone is looking at you. That someone is looking at you means that you are accountable in some way to the person who is looking at you. Being accountable to someone means that you are, to some extent, not independent from that person or institution. In this regard, if we think that central bank independence is a good thing, we need to recognize the extent to which it is in

some conflict with transparency and, indeed, in a large number of international development contexts in which judicial independence is a huge concern and in which judicial corruption is a huge concern, there is a recognition of the fact that dealing with judicial corruption may involve sacrificing judicial independence and trying to achieve more judicial independence may create greater opportunities for judicial corruption in so far as independence is largely the freedom from oversight. We can think about a number of transparency issues in the same way and we can recognize that in so far as there is increased transparency, we may, as I've just said, have decreased independence.

Once we recognize that transparency has a dark side, that transparency has costs as well as benefits, it's possible to think of transparency in decision-theoretic terms. We could go back to the TARP issue and if you will allow me to use a simple word that's probably inaccurate, there is a worry about abuse but when we talk about worries about abuse, what we are really saying, at least what we should be saying, is that transparency makes it harder for "bad" people to do "bad" things. But in making it harder for bad people to do bad things, it also makes it harder for good people to do good things. Transparency makes it more difficult to engage in broadly speaking abuse but it also makes it more difficult to optimize. Non-transparency, conversely, makes efficient and at times optimizing operations easier but facilitates the possibility of abuse. And once we see this in this way, whether we want to think of this as false-positives or false-negatives or for the statisticians type I and type II errors, or anything of this variety, we can see transparency not as an unqualified human good but rather as a decision theoretic issue, a question about decision-making under uncertainty, and your two years later point highlights this, decision-making under conditions of uncertainty that we can then and should analyze with the familiar tools of expected value,

expected loss, two-by-two regret matrices and various things of this sort. Indeed, if I can engage in the perhaps rude practice of slightly taking issue with our host here, the equivalence that Roberta drew, perhaps just in the context of an oral presentation, between reducing the possibility of error and the quality of decision-making may be a little bit too quick. That is, reducing the possibility of error is one form of failure of decision-making. Non-optimizing is another form of failure in decision-making. In some context it will turn out that more transparency is better. In some context it will turn out that less transparency is better. Which those contexts are is something we can and should look at through these decision-theoretic lenses but doing so in some detail is not something I have either the time or the talents to address now. Thank you.

KOHN: Thank you very much, Fred. Henry.

HU: I'd like to thank Don, Sullivan & Cromwell, and Roberta and all her colleagues at Yale for making it possible for me to come back to New Haven. My remarks focus on the first kind of transparency that Don referred to: the creation of a robust informational predicate for private decision-makers. The general case for such an informational predicate is familiar. It's drummed into us from the first day of securities regulation class in law school: the disclosure philosophy and the many virtues of sunlight. In the specific context of banking and shadow banking, a robust informational predicate can often, though not always, help reduce systemic risk. Basel II's "Pillar 3" emphasized how market discipline flowing from public disclosures can supplement Pillar 1 capital adequacy requirements and Pillar 2 bank supervision in ensuring bank soundness. As for shadow banking, it's clear that the informational asymmetries and associated frictions pervading asset-backed securities contributed significantly to the global financial crisis.

So, okay, sunlight is great, but at least three basic questions arise. First, just how does the SEC and other regulators go about fostering this informational predicate? Second, does that approach work with respect to such matters as complex, too-big-to-fail banks heavily involved in financial innovation activities and complex asset-backed securities? Third, if the approach is insufficient, what should we do? In an article published in June of last year. I tried to address these three questions. My brief remarks today are based in part on that article – *Too Complex to Depict?* – and a further article.

First question: the how question. *Too Complex to Depict?* suggests that, since the SEC’s creation in the 1930s, the disclosure philosophy has substantially been implemented through what can be conceptualized as an “intermediary depiction” model. An intermediary, such as a corporation issuing shares, stands between the investor and objective reality. The intermediary looks at the objective reality and basically describes that reality to investors. It observes reality, crafts a depiction of reality’s pertinent aspects, and transmits that description to investors. The energies of the intermediary, along with those of underwriters, accountants, lawyers, and other experts and gatekeepers as well as the securities and other regulators, are all focused on trying to ensure that the intermediary’s depictions are accurate and complete. Indeed, information is often conceived of, in terms of, if not equated to, these depictions.

Second question: does this intermediary depiction model work in the face of complex financial innovation? Financial innovation poses at least two basic kinds of roadblocks to good intermediary depictions. The first roadblock is that modern financial innovation is creating objective realities that are far more complex than in the past, often beyond the capacity of the English language, accounting terminology, visual display, risk measurement, and other tools on which all depictions must primarily rely. In terms of the matter of realities

being very complex, consider, for instance, asset-backed securities and their various tranches. Here, even the meaning of “objective reality” is subject to alternative conceptions: is the reality what the various pooling and servicing agreements specify as to what each tranche gets, or is it the waterfall that’s embedded in the computer program that actually determines the cash flows? They’re sometimes different. What’s the objective reality you’re trying to describe in the disclosure document? Also, the tools used for depictions are, as a relative matter, very rudimentary. Even modern risk measurement tools like Value at Risk and stress test results are extraordinarily crude in characterizing what may happen in normal circumstances and in extreme circumstances. As for too-big-to-fail banks, the annual reports that shareholders are receiving are probably reaching some kind of physical obesity limit. As an example, this is one major too-big-to-fail bank’s latest annual report to shareholders, 412 pages, and you have to take a magnifying glass to try to read some of the stuff -- the font is sometimes that small. It’s replete with Value at Risk numbers, stress test results, and so forth. Yet a wide variety of private and public organizations have been scathing as to how reports of major banks may sometimes fail to fully capture these banks’ true risk and return characteristics.

Now I should note that there are very worthwhile efforts going on through Basel and elsewhere to try to improve these intermediary depictions. That’s great. But even with improvements, I think that given the basic fact that the tools are so rudimentary and that the realities can be so complex, there remains the danger that depictions might sometimes offer little more than shadowy outlines of the objective reality. Last night, I just noticed the photo on the back of this particular annual report: notice the shadowy reality here.

Second roadblock. Financial innovation sometimes poses a second roadblock to depictions: even a completely well-intentioned intermediary either, number one, may not truly understand the reality that the intermediary is charged with depicting or, number two, may not function as if it understands that reality. This second roadblock may stem from the complexities of financial innovation itself, or from the organizational complexities associated with the intermediary. If the intermediary itself doesn't understand or doesn't act as if it understands the objective reality, how can the depictions that the intermediary offers be accurate and complete?

As Too Complex to Depict? was in the final stages of editing in May of last year, the JPMorgan Chase "London whale" credit derivatives issues started emerging publicly. I quickly included in the final published version of the article an 11 page discussion showing how these JPMorgan Chief Investment Office issues illustrated both kinds of roadblocks and certain other basic themes of *Too Complex to Depict?*. Of course, the discussion was based on the facts that were publicly known in May of last year. I should emphasize that in that article, I assumed absolutely no intentional misconduct on the part of either JPMorgan Chase or anyone at JPMorgan Chase. Subsequent developments, including yesterday's settlement with the Fed, SEC, and UK's Financial Conduct Authority, I would suggest, provide additional evidence in respect of these roadblocks and other themes of that article.

On April 13, 2012, Jamie Dimon was referring to this London whale issue as a complete tempest in a teapot and the Value at Risk number JPMorgan Chase offered for the end of the first quarter was 67 million dollars. On May 10, 2012, JPMorgan said it now deemed inadequate the Value at Risk model it had used. JPMorgan moved to a different Value at Risk model and the number was now 129 million dollars for the end of the first

quarter. In the few months after May 10, JPM lost about 6 billion dollars in connection with the Chief Investment Office's "synthetic credit portfolio." On July 13, JPM restated its results for the first quarter of 2012 in light of certain issues relating to that portfolio: JPM's consolidated quarterly income before income tax expense was restated from \$7.6 billion to \$7.0 billion. Think about that: how a 67 million in Value at Risk somehow ultimately related to matters involving so many zeros.

Third question: what's the answer? There are at least three kinds of answers. First, you need a more eclectic conception of information. Second, the simplification of reality itself. Third, to the extent legally permissible and, this is important, actually wise, for banking and other governmental authorities to provide to the public more granular information on the state of systemic risk and the interconnectedness of too-big-to-fail banks.

Because I only have a few minutes left, I'm just going to talk briefly about the first two kinds of answers. If complexities related to financial innovation are creating problems for the SEC's longstanding disclosure paradigm, technological innovation may contribute to a solution. With advances in computer and Internet technologies, it is no longer essential to rely exclusively on intermediary depictions of reality. Figuratively, the intermediary need not always stand between the investors and the objective reality, recounting to the investor what the intermediary sees. The intermediary could step out of the way, and let the investors see for himself, to download, the objective reality in its full gigabyte or terabyte glory. Such "pure information" can be more granular and accurate than the intermediary's depiction. Moreover, with such disintermediation, the investors will have information freed from possible intermediary misunderstandings and biases. However, at the same time, disintermediation will also leave investors bereft of an intermediary's expert efforts at

analyzing and distilling the objective reality, and incorporating the resulting insights in the intermediary's depiction. And, of course, there's the matter of proprietary information.

I believe that a disclosure paradigm that relies both on an improved intermediary depiction approach and the pure information model and the full spectrum of strategies between these extremes is necessary. For instance, in terms of too-big-to-fail banks, one of the ideas I mentioned was that we should at least consider the possibility of adding additional objectives to the wonderful CCAR program -- the stress test type program that Don spearheaded, one of his many splendid achievements at the Fed. For instance, perhaps the Fed should disclose the actual models that the Fed uses in terms of the CCAR numbers and then require banks, in effect, to provide parallel sets of numbers, one under the bank's own models with respect to particular things, and then a parallel set of numbers under the Fed models. In so doing, "moderately pure information" is provided to investors. There's relatively little loss of proprietary information. It's not terribly burdensome for banks; they are already subject to the CCAR test anyway. The main disadvantage, of course, is that banks might be tempted to play to these Fed models and, clearly, that's an important issue. There may, however, be some incentives that cut the other way. I don't have time to talk about them now. This type of moderately pure information involves what I refer to in the paper as a "common bank models" approach. I also talked, for instance, about a "common bank assets" approach. Okay, so that's in terms of information.

A second approach to the limitations of the intermediary depiction model does not involve dealing with information, but instead dealing with reality itself. If reality is simpler, it would be generally easier to depict. In a physical sense, Kazimir Malevich's painting, *White on White*, would be far easier to describe accurately, fairly, and succinctly than Hieronymus

Bosch's triptych, *The Garden of Earthly Delights*. In terms of simplifying reality, a lot is going on now, albeit these developments are driven by non-informationally-based motives. For instance, pressure to simplify swaps arises from Dodd-Frank's mandatory clearing requirements. Also, when the Volcker rule is implemented, banks will be banned from proprietary trading. And there are voluntary industry efforts going on to standardize contracts. Simplification strategies may be worth especially careful looks if you cannot improve intermediary depictions enough and pure information or moderately pure information strategies prove insufficient. Many of the simplification possibilities would be incremental in nature. On the other hand, if too-big-to-fail banks are too complex to depict and "pure" and "moderately pure" information strategies are insufficient, this informational situation could be one factor to consider with respect to the daunting question of whether they are also too complex to exist. I emphasize that I'm not suggesting that these banks are in fact too complex to exist and should be broken up: I'm simply raising this informational consideration.

Let me conclude. The SEC's basic approach to information emerged at a simpler time, relied on a simple conception of information, and was directed at simple goals. All of us, not just the SEC, but also the Fed, industry, investors, and others need to rethink the nature of information and realize the promise of unprecedented advances in computer and Internet technology. We need to encourage the cross-fertilization of SEC transparency activities with informational activities associated with those of central banks and bank supervisors, and we need to think about the spectrum of possibilities in terms of the simplification of reality.

Thank you so much.

KOHN: Thank you very much, Henry. Gary.

GORTON: Well, we've heard a lot about transparency not much about opacity or what banks do. It seems curious that opaque banks would have been around for 350 years and if you thought they should be transparent, we've only now discovered this problem. I think it's useful to go back to the issue of what it is that banks do and to ask how they're successful at it? Andrew Metrick mentioned in the last panel that the output of banks is debt. It's easiest to think of this as checking accounts because we write checks. In the middle of the 19th century, by the way, checking accounts took over from free bank notes. Before the Civil War, there was none of national paper currency, but banks issued their own private money. Checks began to take over from free bank notes. Checks were described as very complicated. What if you didn't have the money in your account and how did checks clear; how was a check going to get from here to New York City. Economists had no of the extent to which checks were used as money. They were writing papers with titles like "Are Checks Money. Every time banks produce a new form of money, it's described as complicated and it has all these problems.

Let's just step back for a minute and ask about how banks create money. We can think of checking accounts or the modern equivalent of that which is a sale and repurchase agreement. You can think of large institutions that want to put their money somewhere overnight because they might need it the next morning. They don't want the cash because cash doesn't earn interest. They're going to lend it or deposit it in a dealer bank overnight at interest, and to make it safe, as there's no insurance for these large amounts, the dealer bank will give them collateral, namely, a security at market value for the amount deposited. And the next morning we unwind this unless they want to do it again. The collateral has to be something that the parties agree on very quickly because every morning 10 trillion dollars of

repo is rolled, that is you're asked whether you want to do it again. In this transaction, nobody really has time to do credit analysis on the collateral. It's just like in the free banking era. If I took a free bank's note, say issued by a New Haven bank, to New York and I tried to spend it, in New York the shopkeeper would tell me, oh no, it's only worth \$9.00 in New York. I would argue, no, it's worth \$10, where did you get that idea? From this little newspaper. You can't actually transact unless it's agreed that we all think this is worth \$10.00. Now how would that happen? How would repo happen and how would checks happen?

Well, in order for it to happen, banking is intentionally opaque so that we are symmetrically ignorant. I know that you don't know any more than I do and I know that there's no reason for you to go find some insider information because it just doesn't pay you to do that. In that case, it's just accepted at \$10.00. If you look back at banks or even now, even with deposit insurance, you'll find that historically, certainly, before insurance, banks backed their money with debt – debt that has no information leakage. Banks lend to individual households and to small businesses. And, banks did not have traded stock once demand deposits became extensive. Bank stocks were delisted. They listed again briefly in the '20s and then delisted short thereafter. They didn't list their stock on any major exchange again until 1962. Banks were intentionally creating this opacity so that their money would trade at par. In other words, when spend \$10.00 we agree its \$10.00 without having to argue about it. Or in the case of repo, I say I'm willing to accept the 100 million of AAA credit card ABS as collateral because I know it's worth that. You know what? It's designed to be complex. It's designed to be complex so that nobody has an incentive to look into it. That's the way banking works and money works. However, this is also the source of the problem

because a financial crisis is an information event, when you suddenly become suspicious that the backing collateral isn't what you thought it was.

Let's look at the 19th century, before the Fed. We're going to ask what happens in financial crises? In the National Banking Era, 1863-1914, there were five major financial crises, banking panics. These banking panics were addressed by an institution, a private bank clearing house. Each major city had a clearing house, which was a coalition of the member banks. Banks in the clearing house ostensibly cleared checks, but in that process they'd face counterparty risk, so they had a big incentive to monitor the other members. The members were always only large banks. When there was a run on the banks they would suspend convertibility, refusing to give you your cash for your money, your checks. That was always illegal but it was never enforced. The next thing they did was they cut off bank-specific information. Before, in normal times, the clearing house required member banks to publish balance sheets every week, but in the banking crisis, they cut off bank-specific information. They *reduced* the information, forcing people to focus on the banking system as a whole not on individual banks. In this process, you have this blackout period. Well, what happens? Well, the clearing house is engineering secret bailouts. It's lending money with this new security called a clearing house loan certificate but it keeps secret which banks are borrowing how much and, very interesting relative to the stress tests that were mentioned, the clearing house would, on occasion, examine a specific bank. They'd send a team to a specific bank and when they would finish their examination and they would issue a certificate to the bank, which then would be in the newspapers. The certificate simply said this bank is solvent. That's all it would say. It didn't provide any detail. It just said this bank is solvent.

This way of dealing with crises is counterintuitive, I suppose, if you think transparency is the be-all and end-all, but everything else about banking is the same, it follows the same logic. Why do we have deposit insurance? Well, it wasn't intelligent design I can tell you. Economists thought it was going to be moral hazard and bankers were opposed to it and FDR was initially opposed to it but the American people were just tired of having these financial crises. Deposit insurance says to you don't bother looking into what's behind it. Just forget about it. You don't have to worry about that. People will accept your checks and we, the government, will worry about the banks. And, even today, when the government examines banks, giving them CAMEL ratings, these ratings are confidential.

In the recent crisis, the Fed's discount window was supposed to be secret but turned out not to be and so during the crisis, Don and colleagues designed lending programs based on auctions, so that no one could figure out which banks were the weak banks. The stress tests were very much like what clearing houses did. The stress test told you some information but not a lot of detail.

Thus, there is a reason banks are opaque. They've always been opaque. They should be opaque. They have to be opaque. Make them transparent and you're just going to push banking into the shadows.

That leaves open some questions, which I think have been mentioned. One question is: is the Fed very different than the clearing houses? The clearing houses monitored each other. Who monitors the Fed? That's the question that came about, in the Bloomberg case. That's one question. None of this would not be important if all of us were convinced that the government had addressed the problem of banking crises with some legislation, which bought us no panics, no financial crises. Remember, what's really amazing about U.S. history is that

we didn't have a crisis from 1934-2007. That's unbelievable. These crises are not that rare. They happen in every market economy throughout history and somehow by some combination of dumb luck and intelligence, we got a long period with no crisis. But nobody now thinks about designing regulations to get another long period of no crisis. We're not focused on that. We're focused on, how are we going to resolve these big banks. What are we going to do? I think that means that there will be another crisis.

I think there's a good reason why banks opaque and why they're always going to be opaque. But we should address the weakness, which is the vulnerability of opaque debt to being run.

KOHN: Thank you, Gary. I'll use my privilege as moderator to add one or two thoughts. I thought the stress test was an interesting example of transparency because there was huge resistance from both the supervisory community and the banks to releasing the information that we released in the spring of 2009. We had more than one bank call us up, and not the troubled banks either, saying you release this information and you will put the banking system at risk, and the supervisors were not used to releasing that kind of information and yet that transparency, I think, made a major contribution to restoring public confidence because it did tell folks something about what was going on inside the banks they couldn't get otherwise, given the complexity or opacity. I think the stress test to some extent is part of Henry's simplification, not simplification of the system but giving people information that they can take on. The other point is I do worry about where Congress came down on the disclosure issue and Fed loans. I'm concerned about stigma. I'm concerned that even if it's going to be two years until your borrowing is made known, number one, the crisis could go on for quite a while and two years might not be that far after the end of the crisis and, number

two, there's political risk. I can recall asking somebody from an institution just down the road in Hartford why aren't you guys participating in TALF, which was one of our programs to get securitization markets going again, and this was right after the automakers had been excoriated for taking private planes to Washington, and he said my boss told me that if he had to ride a bike to Washington, DC to testify in front of Barney Frank, I was fired, so we're not participating in TALF. It was an exaggeration, maybe, but I do think in addition to the risk of being seen as a weak institution when your name gets out into the market, there is the risk of the political blowback and so I do worry about the stigma. There is tension, I agree, between policy effectiveness in this case and democratic accountability, and where to draw the line is a hard one, but we won't know until Gary's next crisis whether the line was drawn at the right place. We can take questions from the audience. Go ahead.

SOMMER: Joe Sommer. I repeat the disclaimer. Gary, I don't hear you arguing for opacity. You're arguing for transparency among the insiders and opacity to the great unwashed. That's everything you said. Do I need to go on or can you respond?

GORTON: No, that wasn't the argument. You can interpret it that way. What I said was that banking has been opaque since the beginning for a reason and that is a double-edged sword because we want banks to be opaque but that's what creates this vulnerability to crises. The issue is how do you make the system not vulnerable to crisis but retain the ability to have money.

KOHN: Dick.

HERRING: Dick Herring from the Wharton School. Gary, sorry, everybody's picking on you but it was a provocative talk, I'm curious about your nostalgia for the banking era from the mid-30s to, I guess, the late 60s because it seems to me that there were lots of

things different about it. It wasn't just opacity. In fact, I wouldn't even think opacity was first and foremost. What we had was strict controls on interest rates. Banks could not offer a competitive rate of return. They held mainly treasury bills. They didn't do much. We know we can make banks safe by guaranteeing them a very, very high charter value and that's essentially what we did in that era. We carefully regulated the issue of banking charters, even the issuance or the opening of new banking offices, so we guaranteed banks a very, very safe return and, therefore, it's not surprising. We see banking systems all around the world that are able to be very safe by being very, very uncompetitive and I'm not sure that's the tradeoff we want to make.

GORTON: I only mentioned that period because it was a period in which we didn't have a systemic crisis and, as you say, there's other countries that also have had long periods without a crisis. However, since 1970 there's been 147 systemic crises around the world. I agree with you that charter value is the way to go because then you have a carrot. The banks don't want to do certain things because they're going to lose these monopoly rents but, that was something that was stumbled upon. You can't propose that we have banks that are monopolies. I think there's other things we can do without being repressive and Andrew Metrick and I have a proposal which, as he said, is, thinking of the long run. Deposit insurance was discussed for 50-60 years before it actually happened and central banks were discussed for 50 or 60 years before we got the Fed, so we can start the discussion and see where it goes in 50 or 60 years.

KOHN: And I would say those controls, in my view, were the beginning or gave the major impetus to the shadow banking system, to the money market funds, so maybe it took 30

or 40 years to realize the risks in that system but the controls were not necessarily stability-enhancing over the long run. No other questions or comments? Paul.

SALTZMAN: Paul Saltzman. Just for the record, I was not present at The Clearing House when we were doing these secret ballots in the 1800s. I was wondering if the panel, as a whole, can comment on the interplay of the securities laws and the integrated disclosure framework and concepts of materiality and everything we've been talking about. In other words, why isn't that the simple threshold that should guide the disclosure paradigm. If something is material and the bank is a public company and puts itself out in the public markets, it needs to disclose; if it's not material, it does not need to disclose. I know that's a very simplistic way of looking at it but that's the securities law framework that has existed for the past 70 years or so.

KOHN: Let's hold that and then get the other question and then each panelist can make comments on anything they want to make.

MIN: Hi, I'm Geeyoung Min from University of Virginia. Even after we draw a line on what to disclose or when to disclose, the problem of the quality of disclosures, that is, the matter of the degree still remains. As we can observe from the current SEC disclosures on other issues, such as disclosure of related party transactions, it is not too difficult for companies or banks to meet the disclosure requirements without disclosing what they don't want to disclose, so I want to hear more about if there's any way to incentivize the banks or companies to do better disclosure, I would say, not only the amount of the disclosures but the quality of the disclosures.

GORTON: The problem, you put your finger right on it and Mr. Hu also brought this up, is that the measurement systems that we have, GAAP accounting, national income

accounting, Fed funds, do not measure the right things in a world of derivatives and in a world of off-balance sheet vehicles. You need to measure things differently. I think we know how to do that and I have a proposal about that and the Office of Financial Research ought to be doing it but it's a big project to get this done because, national income accounting happened at the end of the Great Depression. Roosevelt had no idea whether the income was growing or shrinking or what the unemployment rate was. We didn't measure any of that. National income accounting was new and then World War II came along and, again, the government wanted to know how many tanks we could make if we turned auto plants into producing tanks, so national income accounting came out of an environment where the government had a big stake in having national income accounting work. We lost that opportunity in this crisis. I thought the one thing that we would get out of this was the recognition that it's not just quality. We need a different measurement system. You need national risk accounts and that is something, again, we're going to have to wait for a few more crises.

KOHN: I'm looking at Andy Lo and we both know that the Office of Financial Research has a lot of work underway, trying to think about what information would be useful and how to get it organized. Henry?

HU: I'd like to pick up on these two themes very quickly. In terms of using the materiality standard, of course, that's the mantra of the SEC and the focus on the protection of investors, market efficiency, economic efficiency and all those things. When you think about the traditional kind of SEC focus on disclosure, it's based on those goals and not anything having to do with systemic risk. There is no kind of broad exception for being allowed to be opaque on the grounds that transparency would cause systemic risk. The focus of federal bank regulators is traditionally different. The focus of bank regulators is really on the safety

and soundness of individual banks and in terms of systemic risk issues, not really focused on the needs of investors. That's why, toward the end of my brief remarks, I was suggesting that the goals now, and this relates to issues that Bob and Fred and others and Don and Gary all touched on, are multiple in nature. So one of the key issues is how you basically handle multiple goals. The presence of multiple goals can sometimes raise almost intractable issues. Many of the people in the room teach corporate law and, and I think very few people who teach corporate law are fans of multiple constituency statutes. It's the same general kind of thing. But that is one of the key things that we have to worry about.

In terms of risk measurement and what the Office of Financial Research is doing and so forth, it's great in terms of trying to better understand systemic risk and figure out interconnections. It's also great that people like Andy Lo are involved. Improving risk measurement tools is also important at the level of the individual entity, in terms of banks and certainly other SIFIs in terms of capturing their true risk return characteristics. While the solution for some of these things is not quite as long-term as what Andrew Metrick referred to in terms of his ideas, that is several generations, we're still a long ways away from having tools that come anywhere close to capturing the realities we currently have.

KOHN: All right, thank you. Fred?

SCHAUER: Consistent with what Henry was just saying, materiality even in basic securities law is contingent upon who it is, who's reading the relevant information or using the relevant information so at least one of the problems with the materiality standard would be the differences among, for example, the sophisticated investor, the ordinary investor, the press whose constituency is largely the wider public and so on. I think, in a way, what a number of us have been talking about is just the difficulty of using one standard in this context. One

thing about the great unwashed, it might be useful to connect some of these issues with larger and non-finance and non-security specific debates about expert decision-making in general. We're talking about a particular area of expertise but if we were talking about scientific expertise or climate change or a whole bunch of other areas in which, going back to the 1930s, we recognized a place for expert government knowledge, expert agencies and so on, it may be that the reference to the great unwashed is just an entry into a very difficult issue of in a democracy, which decisions should be made by popular will and which should be made by experts and that's not easy.

GIUFFRA: When Henry put up that telephone-sized disclosure document, I was wondering what law firm had drafted it because I was thinking about the number of hours that probably went into preparing it. I think the genius of our securities laws, enacted back in 1934 and 1933, was the fact, and Ralph Winter has made this point, is that those laws established a weights-and-measures system, such that investors could compare the financial results and performance of company A to company B, bank A to bank B. Unfortunately, as businesses have become increasingly complex, it's become harder to do.

Part of the problem, which maybe I experience on a daily basis, is the fact that in 1933 and 1934, when the securities laws were enacted, Congress did not expressly provide for a Section 10(b) private right of action permitting investors to allege that issuers had engaged in fraud, and courts had yet implied such a right of action, something that came many years later. And, in the early days of the securities laws, regulatory agencies were not operating in the "gotcha mode" that they are now. As a result of increasing civil litigation and much more aggressive regulatory enforcement, we have evolved from a a weights and measures disclosure regime to more of a kitchen sink disclosure regime. Banks and other public issuers

are so scared of being sued, and the cost of litigation and regulatory investigations, that there's just an enormous incentive for companies to issue the most comprehensive, but ultimately unreadable, disclosure, such that investors really do need read that disclosure many times to get a sense of what a company actually is disclosing.

HU: Or if you're a carrot-eating Bugs Bunny...

GIUFFRA: And so, what's the solution? I think one of the big issues, is that people need to look at our civil litigation system, particularly in the securities area, and focus on, does the system, as it's currently configured, make sense? Is it good for investors? All too often, the only beneficiaries of the current system, in my view, are the lawyers on both sides of the "v." In reviewing disclosure, it's also important that regulators remember that a "gotcha" regulatory mindset ultimately encourages unreadable disclosure. In my view, issuers and regulators should focus more holistically on what really does matter in terms of disclosure and go back to the original concept of the securities laws, which was to provide a weights and measures system that allows investors to make comparisons across public companies.

KOHN: Thank you, Bob.

HU: I agree with what Bob just said and in terms of risks and their measurement, the 10 second point I wanted to make is that there are some obvious problems. For instance, Value at Risk is reported at JPMorgan Chase using the 95% confidence level. At Bank of America, it's 99%. And they use different methodologies. How can you compare those numbers? The risk measures are elastic.

KOHN: Great. Let's join me in thanking the panel.

**PANEL III: Accountability and Structuring of Systemically Important Financial
Institutions (SIFIs)**

HANSMANN: I'm Henry Hansmann of the faculty here. I am chairing this panel on Systematically Important Financial Institutions. There has been a change in the schedule. M.P. Azevedo could not make it today, and in her place, we are very lucky to have John Simonson, Deputy Director for Systemic Resolution Planning and Implementation at the FDIC,¹ and then of course we have Rodgin Cohen, Ed Kane, and Andrew Lo. We'll start with Ed Kane, and then we're going to have Rodge Cohen, John Simonson, and Andrew Lo. Please, Mr. Kane.

KANE: [[CLICK HERE TO VIEW SLIDES](#)] Thank you. It's a privilege and an honor to address this audience. I want to begin by explaining my subtitle. Its purpose is to get you to think of management strategies at systematically important financial institutions (SIFIs) that are designed to game regulations as crimes against taxpayers. Specifically, as theft by safety net. The paper I prepared for this conference features a quote from Woody Guthrie. He says, "In this world I rambled. I've seen many crooked men. Some will rob you with a six-gun and some with a fountain pen."

The subtitle stresses that the liability stack of each SIFI implicitly includes contingent equity funding from taxpayers. Unlike the equity supplied by shareholders, taxpayer equity is not being disclosed, not being serviced, and is being exploited for the benefit of the managers and the shareholders of difficult-to-fail-and-unwind firms. This is the root of why crisis bailouts upset people. Some firms are paying penalties (notably, JPMorgan Chase), but few high-level executives at these same firms are being held accountable for putting their firm and

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taxpayers at risk. Angelo Mozillo is a good example of a top manager who got off with trivial penalties for having abused taxpayers.

Regulatory agencies ask us not to blame them for this. They cite three excuses. First, it is very hard to prove gross negligence or fraud. Second, they must go slow for fear that tough enforcement might disrupt the economy. Finally, several agencies, especially the Commodity Futures Trading Commission, have been left underpowered and under-budgeted. They lack the resources and the staff skillsets to document and prosecute the full range of cases that fall under their *aegis*.

I think of safety-net management as a rigged game played by three parties. The principal players are regulated institutions, regulators (which include politicians), and taxpayers. Taxpayers own the agencies but are deliberately deceived and made to play from a poorly informed position. They are equity investors of last resort, who are denied the protective rights of disclosure and redress that are accorded to explicit shareholders. Ethically challenged executives—the people escaping the punishments they deserve—not only build and exploit their political clout, they feel entitled to hide salient information from other players. Methods of concealment are both time-tested and innovative. Moreover, they build staffs that have more skill, more information, and fewer scruples than other players.

Regulators join in an uneasy partial coalition with their clienteles (instances of which we've heard about this morning). Regulators help regulatees with concealment on the grounds that when firms are weak, it would be dangerous to tell people this. They also exaggerate the fairness of their own play. They express too much confidence in their damage-control strategies and in their alleged enforcement of the nominal rules of the game. This is especially true of capital requirements. I liken post-crisis efforts to step up capital

requirements to trying to cure a hangover by taking a drink of the ‘hair of the dog that bit you’. You can seldom cure a problem by consuming more of whatever got you into trouble in the first place.

To pull my ideas together, let me offer a cartoon that I pieced together from the work of two separate cartoonists to illustrate the idea of theft by safety net. The gleeful hold-up man on the right represents SIFI managers. He points a gun at the government official in the middle. The drawing of the official mixes iconic features of John Bull and Uncle Sam. The bullets in the criminal’s gun consist of political clout, campaign contributions, and the possibility of collecting lavish fees for post-government speaking opportunities. In dutiful fashion, the official is picking the pocket of a hapless taxpayer.

What we and the players don’t know is how long taxpayers will remain hapless. A violent uprising of ordinary citizens is the great danger of playing the game of repeatedly picking their pocket. To end the game before violence occurs, society has to rebalance incentives in government and in industry. The simplest way to do this conceptually—but by no means a simple task politically—is to re-characterize willful exploitation of the safety net not as inevitable moral hazard—but as a prosecutable form of theft. Every SIFI’s funding structure contains a coercive taxpayer put—the right to pick taxpayers’ pockets—from expected crisis-management policy. This put makes taxpayers into *de facto* minority equity investors. Why don’t we recognize this statutorily, so as to give taxpayers explicitly an equitable position in all systematically important firms?

I propose this for three reasons. First, it’s a mistake to frame financial safety nets as government lending or government insurance programs. The nets provide loss-absorbing equity funding to zombie firms at times when private investors and creditors are running for

the exit. By zombie firm, I mean a firm that, if it didn't enjoy a government backstop, creditors would force into a corporate grave. Second, the existence of the taxpayer put means that, in fairness, company law ought to create an equitable interest for taxpayers by designating them as coerced equity investors in any and all SIFIs (i.e., interconnected and difficult-to-fail-and-unwind firms) and protect taxpayers against the willful and aggressive pursuit of tail risk at these firms by defining such behavior as theft by safety net. No matter how you sugarcoat it, theft is theft. Third, it is unreasonable to suppose that introducing higher capital requirements and central clearing for swaps will change the fundamentals of the game that over the last few business cycles has been victimizing taxpayers and creating crises. Stepping-up discredited policies merely introduces tougher regulatory constraints on how the game is played. New rules will force changes in the ways people get around the constraints, but they do not alter managerial incentives or clout. In fact, post-crisis reforms expand and enshrine the incentive to exploit taxpayers. Changing incentives requires that the supervisory process be re-engineered to surface material information and actions that supervisors' obsession with accounting capital has allowed commercial and investment banks to conceal with impunity.

Considered as a contract between government and the financial industry, safety nets go beyond insurance and go beyond lending. The costs and benefits that this contract imposes on taxpayers when payouts occur pass unquantifiable Knightian *uncertainty* rather than assessable risk to taxpayers. Lenders calculate probability distributions. Insurers calculate probability distributions. But nobody can calculate a probability distribution for the Knightian uncertainty that faces taxpayers from unforeseeable financial disasters.

In the end, safety nets are tax-transfer schemes. They impose future liabilities on taxpayers for providing help to the financial sector and their high-income creditors and stakeholders. Central bankers avoid acknowledging the anti-egalitarian effects that these schemes entail. They tell us instead that, as compared to doing nothing at all, their highly extravagant income transfers saved us all from catastrophe. There are plenty of taxpayers who, when they finally have to pay the bills for the bailout will find that catastrophic, too. That's proving particularly true for retired people who have had to live off funds they've saved when interest rates are hovering at near-zero levels.

In and out of crisis, the availability of implicit and explicit government credit support subsidizes tail risk. It's time to re-engineer the supervisory process to identify the subsidies that tail risk creates and to make beneficiaries pay for value they receive. Rules that treat accounting capital as an inverse proxy for risk exposure are doomed to fail, due especially to the creativity of accountants, lawyers, and risk managers (many of whom are gathered in this room).

Let me take a minute to clarify what I'm saying. Taxpayers' equity position is inferior to that of ordinary shareholders in at least five ways. First, taxpayers can't trade their positions away if they see problems coming down the line. Second, taxpayers' downside liability is not contractually limited, but their upside gain is. As a firm recovers, the value of its government guarantees approach zero. Once this happens, further gains go entirely to the shareholders. That is why shareholders of zombie firms are attracted to negative present-value projects with heavy upper tails. Third, taxpayer positions carry no procedural or disclosure safeguards. Fourth, taxpayer positions are not recognized legally as an equitable interest. That means that protected firms can exploit taxpayers without fear of class-action

lawsuits. Finally, managers of zombie firms can and do further abuse taxpayers by blocking or delaying recovery and resolution. This further abuse is the consequence of the kinds of regulatory forbearance talked about this morning.

Let me take you through an illustrative balance sheet to show what happens when ruinous losses hit an emerging zombie firm such as AIG in 2008, assuming authorities find it too difficult to fail and unwind. My example assumes no creditor haircuts, which is what in fact we saw in the AIG case. Suppose the zombie is showing assets of 100, liabilities of 90, but has hidden losses of 50 that it is about to reveal. What's going to happen to its economic balance sheet? Taxpayers are going to absorb *de facto* almost all of losses that emerge. I assume that the taxpayer put is worth 42, so that some stockholder net worth is left. Why is that? This occurs because a zombie firm's stock resembles a lottery ticket given to its stockholders and managers. These parties can even take on more tail risk and retain an increasing share of any income that this risk might produce. It's important to see that if authorities don't close out the stockholders, zombie firms have an incentive to exploit taxpayers even further.

Here is a picture of the actual behavior of AIG stock over the last few years. It never became valueless. The only time that its price even got near zero was in early 2009 when the possibility of nationalizing them was on the table. That would have meant taking away taxpayer support from the stockholders. That would have run the stockholders' position down to zero.

Capital requirements aren't working. Many people said that this morning, but they believe that authorities could make them work if their staffs would only draw them up more carefully. I believe in an alternative approach that would seek to measure, calibrate, and

control safety net subsidies directly. For SIFI institutions protected by the safety net, corporate law should recognize that the safety net makes taxpayers into poorly compensated equity investors. All investors deserve to be protected from expropriation, both *ex ante*, and *ex post*. A straightforward way to do this for SIFIs would be to establish single-purpose trusteeships at firms designated difficult-to-fail-and-unwind. Each trusteeship should have the power to require firm managers to calculate the value of taxpayer equity honestly, disclose this value publicly, and pay an appropriate dividend to the Treasury. Please understand that this involves re-engineering the examination process by taking it out of the hands of government officials and putting it in the purview of private parties that can be sued for bad or negligent behavior. The idea is to bypass SIFIs' political clout and create the kind of accountability that can be counted upon to improve incentives.

Let me sketch the trustee recruitment, rights and duties that might be entailed. Those of you who are academics may very well have had your pension claims on TIAA-CREF trusted for you. I was a trustee and member of the finance committee for 12 years there. As in TIAA-CREF, trusteeships in SIFIs might be governed by a handful of trustees recruited for character and financial expertise. Of course, we always have to worry about agency costs, no matter what arrangements apply. But –as private parties-- trustees could be sued personally if they fail to enforce taxpayer interest. This would render them less incentive-conflicted than top government policymakers whose office protects them from lawsuits. I say *less* conflicted. Not unconflicted. Less conflicted. Trustees at the different SIFIs can be expected to organize a standard-setting association and eventually the office of SIFI trustee could evolve into a self-governing profession. Trustees would consult with one another on emerging problems

and hire sufficient staff to double check and publicly challenge or affirm bank and regulator estimates of the dividends taxpayers are due each quarter.

Several related issues require more discussion than I can give them today. For example, to assure that dividends are paid in difficult times, trustees might have a limited right to sell out-of-the money puts on the shares of the firm they are responsible for and be empowered to cover these puts by issuing so-called treasury stock. Such a process would produce automatic dilution of the shareholders whenever crippling losses threatened or were revealed. This would undermine shareholder incentives to countenance tail risk. Another way to make this work would be to specify a set of adverse events that would trigger trustee access to treasury stock.

Some colleagues and I have estimated the quarterly dividends that taxpayers were due over the period 1974 to 2010 as the value of safety-net benefits per dollar of liabilities. The calculations are on an annualized basis. It is clear that back in the '70s—the good times that Gary talked about—the dividend due remained very low, even in recession. But in the '90s in the wake of the S&L mess, they obtained substantial value. During the last crisis, they surged markedly. The average dividends due in the worst quarter was an annualized 600 basis points. If the dividend were assessed per quarter, the peak would be 150 bp. These calculations make a mockery out of the idea that taxpayers truly made money on TARP. It is not enough that highly subsidized forms of credit support get paid back. I think few of us would be very happy to receive merely the funds we advanced to help a distressed friend who went on to enrich himself with our money.

The final part of my presentation is a cartoon that summarizes my view of the Dodd-Frank Act, Basel III, and swaps rule-making. Taxpayer opponents in the regulatory game are

depicted as animals and sweethearts lying in bed together. The regulator is an elephant with a long (presumably, Pinocchio-type) nose. Megabanks are represented as one of the most voracious and intelligent beasts in the animal kingdom: a pig. Not only are these players in bed together, they have invested in bed lamps whose shades have hearts on them to show how much in love they are. The punch-line is uttered by the regulator: “How about this? I pretend to spank you and you pretend to be scared.” Thank you.

HANSMANN: Thank you. Well this sets a high mark, but Rodgin Cohen is next, and he’s up to it, I’m sure.

COHEN: Okay, thank you, and good afternoon. I am honored to be here today at this conference and at this extraordinary institution. Our topic has two distinct elements. The first—accountability—may be largely noncontroversial, but in contrast, the second part—structure—will undoubtedly engender substantial controversy.

Accountability is a direct function of the breadth and depth of the recent financial crisis and the ongoing economic fallout. The flaws in the regulatory system relating to SIFIs clearly contributed to the crisis, and therefore, we do need accountability for the near catastrophe that occurred. But I’m talking not about accountability trying to find all the villains, but making sure we don’t have a repetition. We need a regulatory system in place both to reduce the risk that a SIFI will fail in the future and increase the potential that if a failure does occur, there will not be another seismic shock.

Now we get to the difficult part. What should be the basic shape of a revised regulatory system? More specifically, are we talking about reform of the regulatory system or are we talking about reform of the financial system, and in the latter case, structure would play a, or even the fundamental role. So what I’m going to try and do today is to discuss

briefly three basic and somewhat related structural proposals and suggest that none is the right solution.

I realize that getting regulatory requirements right is very hard work. Capital, liquidity, counterparty exposures, risk management, etc., they're all really complex as are the macroeconomic requirements discussed by Governor Tarullo. Regulation will never be perfect and it will need to evolve, but as I will suggest, that does not mean we move to structural reform—I would not call it reform—structural revision of the system as a result.

The first structural option is the elimination of SIFIs, breaking them up. This could be done either directly by placing a cap on size or indirectly by imposing such onerous two-tier regulatory requirements as to force a breakup. In discussing this structural approach, we have an immediate definitional question, what is the relevant institution? How do you define it? How large must it be before it should be broken up if that's what you want? There is a Federal Reserve proposal on special leverage requirements. If you use that as a guideline, the test would be \$700 billion in assets or \$10 trillion in assets under custody. But what justifies those numbers? Presumably the same test should not be applied to banks in the United States and banks in countries with much smaller economies. I should also note, and I think this is often forgotten, that there are already significant legal constraints on size and further growth. Dodd-Frank reinforced the 10% nationwide deposit cap with a 10% nationwide liability cap, and the Federal Reserve has effectively prohibited future nonorganic growth by large institutions through its very broad interpretation of Dodd-Frank's financial stability factor.

These limitations assure that our largest banks will have market shares far below the largest companies in a number of U.S. industries. For example, last year, the four largest U.S. banks accounted for a little less than a third of the industry's revenues. Go to other industries:

For oil, it's 48%; telecoms, it's 57%; auto, 77%; and mainframe computers, 90%. You have a similar disconnect when you look at assets of U.S. banks as a percentage of GDP versus the rest of the world. The five largest U.S. banking organizations have assets representing about 55% of U.S. GDP. That's about one-half the G20 average and one-fifth the U.K. More substantively, the empirical record does not justify any sort of direct correlation between size and risk. To the contrary, two of the largest U.S. banks, Wells and JPMorgan Chase came through the financial crisis far better than almost all the other top 100 banks. If size truly correlated to risk, it is difficult to explain the hundreds of small U.S. banks that failed during the last four years.

I think it is also fair to note here that some of the most vocal proponents of breaking up big banks acknowledge, and forthrightly, that their principal goals are largely unrelated or maybe just coincidental to a stronger banking system. These other goals include punishing large banks for their purported role in the financial crisis, enhancing the competitive position of smaller banks, and advancing a political agenda that large banks are bad for our economy and our democratic system. I would suggest that once you take regulation and untether it from safety and soundness moorings, you are truly going to get into uncharted waters.

Finally, before one concludes that a break-up should be mandated to solve one perceived problem, do we not need to make sure that we will not create an even greater threat to the financial system? If a wholesale funded investment bank were spun off or sold, would we not be at risk of replicating Bear or Lehman? Would the U.S. operations of Citi be safer if they could no longer rely on the earnings power of Citi's foreign operations? Is Wells Fargo more of a threat than we would have if there were a Wells Bank east of the Mississippi and a Wells Bank west of the Mississippi? And as one facetious example of the difficulty of doing

break-ups, which of those two entities would get the stagecoach? Do we really want more generally to encourage banking services to migrate to the shadow banking system, a concern which Governor Tarullo expressed. To be clear here, I am not arguing that large banks are inherently less risky; rather, risk is just not a function of size.

The second structural proposal is sometimes referred to as a narrow bank. Under this model, banks would be limited to deposit taking and lending. This is a variant of big is bad; it can be called complex is bad. But once again, the empirical record largely belies the justifications. Take a number of the key failures – Washington Mutual, Northern Rock, the GSE's – that had nothing to do with their complexity, but conversely with their one-dimensional business model. And frankly, you can get all the risk you want in lending. In a joint study issued earlier this year, the OCC and the Fed estimated that 80% of the losses incurred by depository institutions in the United States as they flowed through the FDIC fund between 2007 and 2011 were due to excessive concentrations in real estate construction lending.

The third and last structural solution is a return to the supposedly halcyonic days of Glass-Steagall. At the outset, we have to recognize the false premise under which Glass-Steagall itself was enacted. Glass-Steagall was justified in Congress in 1933 on the basis that banks' securities activities had led to numerous bank failures. Later economic historians, however, have shredded this argument, noting the absence of any bank failures for this reason. During the congressional debates, there was a focus on a single bank that was said to have failed because of its bank's securities activities. This was the Bank of United States. It was a notorious failure, as it was the largest failure to that point in time, but it had nothing to do with the bank's securities activities. In fact, the bank had very limited securities activities,

and a seminal work on the Glass-Steagall Act demonstrates that the only affiliates of the Bank of the United States that created a problem were real estate lending and investment vehicles. They had nothing to do with securities at all.

What we have here probably is a paraphrase of the famous line from the movie *The Man Who Shot Liberty Valance*, “When the facts get in the way of the legend, print the legend.” Likewise, the stuff of legend is the argument that the enactment of Glass-Steagall prevented bank failures and that failures resumed only after Glass-Steagall was partially repealed in 1999. Let’s again look at the record. The greatest wave of bank failures in this country actually occurred between 1982 and 1993, when 1655 banks failed. These weren’t just smaller banks. For example, it included Continental Illinois, then one of the country’s seven largest banks, and it was a highly reputed bank. Obviously none of those failures could be attributed to the securities activities which were prohibited by Glass-Steagall, because Glass-Steagall was then firmly in place.

Before closing, I do want to distinguish my disagreement with the structural attack on too big from my agreement with getting rid of too-big-to-fail. That is unacceptable. TBTF creates moral hazard. It produces marketplace distortions. It is inequitable, and, of most importance, it represents, and to Ed’s point, a potential call option on the taxpayer. Too-big-to-fail can of course be prevented if there are no big institutions, but the more direct approach is a credible and effective resolution regime for large institutions in which their creditors and other constituencies are at risk, but the financial system is not. Although a full discussion of this issue is well beyond the scope of my remarks today, I would suggest that Title II of Dodd-Frank ended the concept of too-big-to-fail because it is very clear. The law says

stockholders must be wiped out, management responsible for the failure must be replaced, debt holders must bear all loss, and most importantly, taxpayers bear no risk of loss.

An argument is made that Title II has not worked to end TBTF as demonstrated by the reported continued lower funding costs of the largest banks in relation to the smaller ones. There is a lot of debate over the data, but what I have not seen disputed is that the largest companies in a number of industries have lower funding costs than smaller companies. This suggests that any lower cost of funds for the largest banks reflects a market view that size actually creates risk reduction through diversification and provides greater liquidity.

Lastly, I would maintain that Title II has the potential for resolving large financial institutions in a way that should prevent systemic fallout. The FDIC has been working thoughtfully and diligently to develop a Title II resolution regime, SPOE, that should avoid a systemic crisis. There is still substantial work to be done so that Title II and SPOE can be truly effective, and the next panel is going to get into one key element, but none of those should represent an insuperable problem. Thank you.

HANSMANN: Thank you. We turn now to John Simonson.

SIMONSON: [[CLICK HERE TO VIEW SLIDES](#)] Thank you, and the way Rodgin ended is really a great lead-in to my presentation, because I'll be talking about the structure and accountability of SIFIs in resolution. I greatly appreciate the opportunity to be on the panel today. I would note I am not an academic and I am not a lawyer, so that seems a little unusual for the day, but I will start with my version of a legal disclaimer to just say - any of my comments are my own comments and they should not be taken as the official views of the FDIC or its board of directors. Hopefully, I'm not too far off from what they would say, and particularly if there is any Q and A at the end, but—so, with that in mind...

A key component, but not the only component, of ending too-big-to-fail is ensuring that any firm can fail and that the resolution would not cause systemic consequences or create undue moral hazard. The Dodd-Frank Act recognized that, and in the Dodd-Frank Act, bankruptcy is stated as the first choice—the first option—in the event of failure of a systemic financial company. As a result of that, to make that achievable, the law requires that all large financial companies, bank holding companies over 50 billion or those designated as systemically important by the FSOC, have to submit living wills on an annual basis that demonstrate how they would be resolved under the bankruptcy code. This will allow us really to look at these firms for the first time through the lens of resolvability and will help us and the firms themselves rationalize the parts of their business that may not be that suited for bankruptcy. I think the living will can be a valuable tool for making those structural changes that may be necessary for these firms to be resolvable. The living wills and the resolution plans are done under the bankruptcy code or the relevant resolution regime, so that might be SIPA for a broker-dealer, administration for a U.K. subsidiary, New York administration for a foreign branch based in New York, and the like, but not under any of the extraordinary powers that are put in like Title II of Dodd-Frank or their counterparts overseas. We get the plans, the supervisors review the plans, we don't have to approve the plans, but we can find jointly—it's a responsibility between the FDIC and the Federal Reserve—that the plans are not credible, and if that determination were made by the agencies, then there are significant remedies and penalties that would be available, that are built into the law.

Last year was the first time that any firms had ever created and submitted such living wills. We had 11 firms last year submit; basically the largest U.S. firms and the largest foreign firms that do business in the United States. We had a second wave of filers—four

firms filed this past July—and at the end of the year, all the other firms that are covered—which are over a hundred firms—will be submitting their first plans.

When we look at what did we get out of those initial plans, the plans required that each firm identify its critical operations and how they would be maintained in a crisis, what their core business lines are, mapping each to their material legal entities. Not surprisingly, these firms are highly complex with thousands of legal entities, and the legal entities generally don't align with the critical operations and the core business lines. Other important structural aspects are inter-company arrangements, and so we asked to get mappings of cross guarantees, service level agreements, shared services and the like to really see how the firm operates, and then to be able to look at it as to what would happen in a failure and resolution. Overlaying that—the different resolution regimes, as I mentioned—and an identification of what are the key obstacles to a rapid and orderly resolution.

This year after the Federal Reserve and FDIC reviewed those initial plans of the 11 largest firms, we provided additional guidance as to what we wanted to see in a second submission, and that guidance—it's public, it's posted on our website—that really outlines the areas in which we saw there needed to be significantly more work. There were many obstacles that were identified in these plans, but we identified a set of significant obstacles that we categorized in five buckets to help frame the analysis and raise these as the areas that all firms have to focus on. They included:

- Multiple competing insolvencies and the uncertainty that is created when you've got multiple insolvency jurisdictions, and also that one of the key issues is that there's an enormous gross-up of claims when that happens. All the intercompany transactions suddenly

become third party transactions and frankly can be multiples of the size of just the third party creditors.

- Global cooperation or the lack thereof—the next panel will be discussing that more thoroughly;
- Operations and interconnectedness, the continuity of shared services;
- Counterparty actions, closeout of derivatives and other QFCs; and
- The issue of how do you maintain funding and liquidity during a resolution period in amounts that dwarf what you would typically see in an industrial bankruptcy.

This slide is actually one of the key points that I want to make, and that is that SIFI structure, the obstacles to resolution, the resolution strategy are all connected, and at this point in the process, the regulators are not being prescriptive on the plans where we've given them guidance. They're the firm plans. In the first round of submissions, we told the firms to make an assumption that all material entities fail. As you can imagine, that creates a lot of challenges, not the least of which are the competing insolvencies. This year, we laid out that they could choose one of three different types of strategies. They could continue with all material entities fail like last year; or they could try to develop a strategy where there is a bankruptcy of, say, the parent and a limited number of other entities and other major operations would remain open, or could they find a way to keep those open—that's very parallel to the single point of entry strategy that the FDIC has developed under OLA²; or the last would be if the firm is structured in a subsidiarization way, if it's compartmentalized so that the failure of one part of the world or one business line does not cause contagion

² On December 18, 2013, the FDIC published for comment a Notice providing greater detail on the single point of entry strategy that the FDIC is developing under Title II of the Dodd-Frank Act and highlighting issues that have been identified during its development. *See* Federal Register Vol. 78, No. 243, pp. 76614-76624.

throughout the system, that might be a possibility as well. Those plans are due October 1st, so it will be interesting to see what we get, but it's a recognition that the resolution approach and the structural changes that may be required are going to vary by business models and by their resolution strategies.

While bankruptcy is the first option, Dodd-Frank also recognized—they did not assume—that all firms may not be resolvable under the bankruptcy code now as we saw some of the potential systemic consequences in the crisis with Lehman. The act does provide in Title II an Orderly Liquidation Authority that's only to be used if the bankruptcy process is likely to result in broad systemic consequences. Under OLA, the FDIC would be appointed receiver, but only after a process that really sets a high bar. You need recommendations of 2/3 of the governors of the Federal Reserve, 2/3 of either the FDIC Board of Directors or the SEC or the Federal Insurance Office, depending on what business the largest U.S. subsidiary is in, and then a decision has to be made by the Treasury Secretary in consultation with the President, and there is a seven-part test that the Treasury Secretary has to go through to really insure that this really is a last resort, so it's set as a high bar.

But if it was enacted, and the FDIC was called to act, we would basically take control of the parent holding company, which is where losses would be imposed, and we would follow a process that's similar to a Chapter 11 bankruptcy restructuring but using the additional authorities that are built into OLA. I assume that at least many of you are familiar with our Single Point of Entry strategy. We've been discussing it publicly for the last 18 months to 2 years and there's not enough time to go through it, but the idea is that in the U.S. the U.S. largest SIFIs have holding companies that really are holding companies. They're not operational. That means the top tier would fail, the shareholders would absorb losses,

unsecured creditors would absorb losses if necessary, culpable management would be replaced, and then the unsecured debt would be left behind in the receivership. We would create a new bridge company and transfer all the assets of the holding company—which are largely investments in subsidiaries, there’s not really operations there—and leave behind most of the liabilities. That would allow, then, the operating subs to stay open. The parent, the bridge, could provide capital liquidity as necessary to some of the subsidiaries. Then after a claims process, evaluation process, there would be basically a recapitalization through an exchange of the claims in the receivership for new debt and equity securities.

Why did we take this approach? Part of it is, it meets the statutory requirements of minimizing systemic risk. It ensures that the failed company’s investors bear the losses, that there is no potential of taxpayer credit support, and I think that’s important. The losses are imposed on the shareholders and creditors and while there are provisions for liquidity to be provided, that has to be repaid from the assets of that company. If in some event that doesn’t happen, the OLF gets repaid by an assessment on the industry and not the U.S. taxpayer. Operationally, we think by having the operating subs stay open, that maintains continuity of critical operations, and it minimizes the disruptions. There are also provisions that will minimize the closeout of derivatives and QFCs. We think this also does help with moral hazard issues. At the end of the day, the losses are imposed on the shareholders and creditors of the holding company, who are the ones who ultimately are managing the firm or that management is responsible to, so it aligns those losses with the controlled enterprise. But one thing that’s important to note, there’s a lot of talk, are subsidiary creditors protected? They’re only protected to the extent that there is sufficient capital at the holding company, which would be true potentially in a bankruptcy process as well. If the losses are so great and there

is not sufficient capital at the holding company, then there would be a need to put some of the subsidiaries into receivership, and losses could be imposed there. This leads to one of the key structural issues in order for SPOE to work, is that there is in fact, enough capital and equity securities at a holding company to absorb the losses in the failure and provide for some recapitalization of a newco.

In conclusion, I just want to say that when we think about resolution, Title I, as I said, is an important tool for making structural changes that may be necessary so that these firms can be resolved through the bankruptcy process and there is no need for government intervention like OLA. Through that, we would hope to see a simplification of legal structures and better alignment with critical operations, and that the firms will have to figure out what do they need to do in order to mitigate some of these significant obstacles. If, in the meantime, before that process is complete, there is a failure and there is a need for resolution through OLA, we think, though, that we have put accountability into the process for a SIFI failure.

HANSMANN: Thank you. Our final speaker, Andrew Lo.

LO: [[CLICK HERE FOR SLIDES](#)] I'd like to start by thanking Roberta Romano, Gary Gorton, and Andrew Metrick for inviting me to participate in this panel and this wonderful conference. I'm particularly pleased to be part of this one because, unlike most of the conferences that I attend, this is truly interdisciplinary—with legal scholars, lawyers, and economists participating—and one of the few occasions where I have a roomful of lawyers listening to me for 15 minutes without my having to worry about getting the bill at the end.

But I'm also grateful for this interdisciplinary crowd because some of the challenges that we've been talking about are challenges that can only be addressed by having lawyers

and legal scholars collaborate with financial economists in some very direct ways, and I'm going to describe a couple of those in a minute.

Now since this is a panel about SIFIs, I guess I should start by talking a bit about what a SIFI is. I have to say that it took me a while to think through this issue, because there are lots of different definitions that you've heard from the previous panelists. For example, one definition that the Financial Stability Oversight Council has been focusing on is size: \$50 billion is one number that's been thrown around. But at the same time, we know from our historical past that there have been many institutions that were much smaller and were responsible for significant amounts of systemic risk, the most notable being Long Term Capital Management in 1998. When it went under, it was managing about \$4.7 billion; today's largest hedge fund is an order of magnitude larger than that! On the other hand, in 2006, when a hedge fund called Amaranth Advisors went under, it had about \$9 billion under management, and most of you probably have never even heard of that hedge fund—certainly, this was not an example of a systemically important financial institution.

So how do we define a SIFI? Well, there are two aspects to the term SIFI: one is “systemic” and the second is “important”. Systemic implies something about the system, and I'm going to come back to that a little bit later on, but the notion of important is actually a pretty difficult thing to pin down, and it reminded of a conversation that I had with my eight-year-old son quite a while ago when I was first teaching him how to play chess. When I started explaining to him the rules, and after we played a few games, he asked me a question that took me by surprise. He said, “Dad, which is the most important piece?” I thought about it for a while, and I said, “well, the king, of course, because once you lose the king, you lose the game; that's the most important piece.” But then he said, “Well the king doesn't really do

anything. I can't move it so what is it good for?" So then I said, well, it depends. Actually, in the beginning of the game the pawns are really what you use, and then the knight and then the bishop and so on and so forth, and before I knew it, I began to realize that there's really no simple answer to "what is the most important piece?"

The answer, of course, is: "it depends". It depends on the individual characteristics of the piece, how the piece is related to others, the state of the board, and the rules of the game. There are certain pieces that are incredibly important in the right circumstance that become totally trivial in other circumstances, and more importantly, importance can change, and it can change very quickly depending on the positions of the different pieces on the board.

If you now take this notion of importance and apply it to SIFIs, you get the main point I want to convey today, which is that importance is highly dynamic. It can change across time and across circumstances, and the question that I think we and the other panelists and Governor Tarullo have been dealing with is: can regulators—and I think more importantly, can regulation—keep up with the changes in importance of these different pieces?

This brings me to what I want to focus on today, which is dynamic loss probabilities. Now since I teach at MIT, it's a requirement that every presentation that I give has at least one equation, so here's my equation, and it's an equation that I use to think about all the varieties of financial regulations that are out there. Unlike some of the other panelists and many of you in the audience, those who can't do, teach (I believe it was Woody Allen who said that "those who can't teach, teach gym", and at least we don't teach gym). As an economist who doesn't do, but teaches, I prefer to develop a framework to put all of the various different regulations in proper context.

It occurred to me that all of financial regulation—particularly macroprudential regulation—seems to be focused on just one thing. That one thing is to maintain trust and confidence. From a quantitative perspective, there is a very simple incarnation of that, which is to ensure that the probability of extreme loss is small.

More formally, this amounts to ensuring that the probability of loss greater than a certain percentage of an institution's assets is less than a pre-specified level of comfort, say γ . All of the various different forms of financial regulation—whether they are capital requirements, stress tests, asset restrictions, or access to lenders of last resort—all of those are designed to deal with this issue of ensuring that the loss is not too extreme. If you plug into this equation the various assumptions for what the probability distribution is, what the underlying securities are, what the particular nature of the investment strategy is, one of the implications you get from this equation is that you can't take too much leverage. In other words, there's a limit to the amount of leverage that you should allow an institution to employ. This equation is a very simple incarnation of that implication; you don't have to worry about the symbols other than to note that there are a number of different symbols, which implies that this leverage constraint varies across institutions, across time, and across circumstances.

Let me just give you a few examples of the various different configurations of this alphabet soup of parameters that will give you sense of why leverage restrictions are useful. These are different parameters for the probability of loss, the volatility of the underlying instruments, and the threshold of acceptable loss probabilities, and what you get in that last column that I've highlighted is the leverage ratio that maxes out the probability. This is the

maximum leverage you can have for each of the various combinations of parameter values. I've listed three sets because they correspond to three institutions that we all know and love.

The first set of parameters corresponds to a maximum leverage of 2:1. Two-to-one leverage is very much along the lines of Regulation T, which is the amount of leverage you can take on an equity margin account. The second row is more leverage, 6:1 or 7:1 leverage. This is the kind of leverage that hedge funds can take on. Finally, the last row has an upper bound of leverage of 34:1. That's an extraordinary amount of leverage. But the reason, of course, is because the underlying volatility of the assets in that institution is relatively low, and of course, this corresponds to a bank, which is allowed to have much, much more leverage than hedge funds or individual investors.

The point of this table is two-fold. One is to point out that leverage depends on the underlying parameters. But more importantly, these leverage ratios actually change over time as the parameters, as the circumstances, as the chess board changes. And yet, when we look at leverage restrictions, for example, Regulation T or Regulation D or Basel III, all of these capital ratios, capital requirements and leverage ratios are fixed. If you fix these leverage requirements then one of two things must be happening. Either all of the parameters in your table aren't changing, or they are changing and what you haven't fixed is the probability of a disaster, i.e., the γ that we said we wanted to assure ourselves we would not go beyond.

A simple example of this principle in a very practical setting is margin requirements that financial exchanges often impose. The Chicago Mercantile Exchange is probably the best example. A few years ago, they put forward a standard for computing margin requirements on their futures contracts called SPAN—Standard Portfolio Analysis of Risk—and SPAN has been adopted now by 55 different exchanges and used day-to-day to compute

the amount of margin you need to post in order to make sure that you can fulfill your obligation as a counterparty in these various different futures contracts. They're known as performance bonds that you put up.

When the risk of the underlying investment changes, you will actually have to change the margin that you post. Just to give you an illustration of this, here is a rolling window graph of the riskiness of the Euro/U.S. dollar exchange rate or Eurodollar future contract. The average volatility over this period is about 10% on an annualized basis, but if you calculate volatility within 6-month rolling windows, you see that it moves around quite a lot. At some point, the volatility is less than 5%, but during the 2009–2010 period, the volatility is way over 20%. What do you think the Chicago Mercantile Exchange does in these cases? Well, not surprisingly, it sets margin requirements as a function of that risk. Let me show you what the SPAN system gives for the margin requirements for the Eurodollar futures contract. They change margin in lockstep with the risk, and as a result, they've had very few, if any, failures of any sort for any counterparty to be able to perform on their future contracts.

Now let me show you that same graph for macroprudential regulation, in particular, Regulation T, the regulation that regulates how much leverage individual investors can have in their equity margin accounts. Here is the volatility of the U.S. stock market on a 6-month rolling basis from 1926 to 2010. The average volatility of the stock market is about 16%, but the volatilities using 6-month windows shows more of a roller coaster ride during the 1930s, and then for a period of about 50 years or so, the volatility was relatively well controlled. It is a period that I call the “Great Modulation”—not to be confused with the “Great Moderation” used by macroeconomists—which is a period where volatility was really understated and well below the long-run average.

What about Regulation T? Regulation T started in the 1930s, and the Fed actually has the flexibility to change it. This is what Regulation T looks like: since 1974, Regulation T has not been changed once! This is not meant to be a criticism of the Fed because, in fact, equity markets have been relatively stable in terms of the kind of performance failures that investors experienced in 1929. On the contrary, it illustrates tremendous opportunities for us to change the way we think about leverage constraints and how dynamic they can be in the face of rapidly changing market conditions.

Let me wrap up by pointing out that because financial markets are highly dynamic and because risks vary over time, circumstances, and strategies, we need to be equally dynamic in our responses. SIFI designations are, therefore, by definition dynamic as well. Regulation should adapt in tandem and account for strategic behavior which is captured by the economist's notion of general equilibrium. In a paper that Tom Brennan, my co-author, and I have written for this conference, we've illustrated how hedge fund have evolved in their sophistication, making it much harder for regulators to keep up over time.

One of the questions I'd like to put to the audience, and to colleagues in the broader legal profession, is what kinds of tools can best be applied to achieve this adaptiveness? I understand that the notion of a "clear bright line" is important for developing good and implementable regulation versus the notion of a "balancing test", but the fact is that the financial system has gotten a lot more complex, and regulators are now focused intensely on this issue. You heard this just now from Governor Tarullo—several times he mentioned the notion of "time varying measurements of systemic risk", and thanks in no small part to his efforts and efforts of former Governor Donald Kohn, they've actually developed a number of promising tools at the Fed to address this challenge. But these issues are not being addressed

as much on the legal side, on the regulatory side, on the drafting side, and so the hope is that we can collaborate—economists, legal academics, and practicing lawyers—in thinking about the system from a perspective of macroprudential regulation, and being able to adapt regulation in a way that will make them more responsive. Thank you.

HANSMANN: We'll take a couple of questions, then, Roberta?

ROMANO: I have two questions. One is, when we think of wills in the natural person context, we often say that there are some wills that get probated without any question and there are some that create a lot of litigation, and I'm wondering about the fact that when a will is devised, it doesn't matter what is in it, there will be people who want to challenge or question it. Is this taken into account when the FDIC evaluates a will, or how would we deal with that issue arising? Second, I wanted to invite Rodge or John to respond to the idea that Andrew is presenting, could you possibly, be designated as a SIFI, and then change over time and say, now you're not a SIFI... Is that a feasible thing to do, or how would that basically work?

HANSMANN: I think since I see only two more comment/questions up, we'll have you respond to these two questions first, and then we'll take the next two. Who wants to start here?

SIMONSON: I'd be happy to start. In terms of the living wills, I think it's important to recognize that these are planning exercises. I think they are incredibly valuable planning exercises that would inform what would happen if any of these firms failed, but they're not binding documents. Even if the firm is able to go through bankruptcy, there is no law that says that whether the firm has to propose a plan at that time that's exactly like their living will. There's no requirement that a bankruptcy court or anything put any weight to that. I

think it's really a matter of a planning exercise that will inform and help the firms recognize what they may need to do to be prepared to go through the bankruptcy process. I think we've seen—my understanding of Lehman—there was no planning whatsoever and everything had to be done very quickly. You can debate about what the consequences were, but clearly had there been advance planning, that presumably would have not had as much impact, so I think that's important to recognize.

Another question about managing on an enterprise basis. I think today, most of the U.S. G-SIFIs manage themselves as a single enterprise and have not been that focused on legal entities other than to the extent that it effects regulations around the world, and that's one of the reasons—because these firms are operated today as a single enterprise—that we think the most effective way of resolving them under Orderly Liquidation Authority would be as a single enterprise. But that is not to say that that is necessarily how it should always be done. I think it's just that's the reality of how they're structured and managed today, and I think as these firms think about can they do the same thing through bankruptcy, there are things that they would need to do or consider to insure that they actually can operate through resolution as a single enterprise. I think that the international issues are very challenging, very difficult, and something that we've spent a lot of time on. If something's done under OLA there is the benefit of we're the actual authority and we can have been engaged in dialogue, as we are, with our counterparts in the U.K., in Europe and Japan and the like, so they understand the approach that we would take and they understand the people and have, hopefully over time, developed some level of trust. I think even that being said, host jurisdictions will always act in their own interest. I think what we get from the dialogue we have is actually understanding that. I think the real problem in resolution is when there are

surprises or when people don't act the way that you anticipated, and at a minimum, we want to eliminate any of those actions that are caused by a misunderstanding, a lack of understanding what we would do. When you put that in the bankruptcy scenario, whether it ends up being multiple resolutions and each country is resolved independently, which may be achievable if firms are organized in a certain way, or the firm is trying to hold the enterprise together through resolution, and that poses, also, challenges, because the laws and the authorities and just how the process is directed is very different from what the FDIC would do under OLA.

HANSMANN: Rodgin?

COHEN: Maybe a couple of quick comments. I must say I was very much taken with Andrew's description of what I would call dynamic regulation and the necessity for it, and, to Roberta's point, FSOC is going to need to establish a process both whereby it can designate any additional SIFIs to the extent truly called for after the first round is finished and de-register SIFIs as the occasion may arise. The comment about litigation on living wills struck me, and, if I could just play with the theme for a moment, the real litigation comes when you die intestate like Lehman, as opposed to the hopefully more regularized approach of Title II. Then one more comment on Title II: there is obviously a very strong movement in some circles to repeal Title II and say the Bankruptcy Code will work and then we don't have to worry. And so if we continue with this theme about litigation, if you want a repetition of Bleak House, then you repeal Title II.

HANSMANN: All right. Another question?

KARMEL: Yes. Roberta Karmel. Henry Hu, in the last panel that we had, talked about the need for changing the reality of banking so that it won't be so complicated and

difficult to understand what's going on, and then Rodge Cohen gave reasons—a number of cogent reasons—why all of the ideas that have been put forward for restructuring the banks are really not workable or shouldn't be done, but then we hear from the FDIC, which is telling us, we're using these living wills to really compel some of the banks to change their structure. I guess the question I have is, is the FDIC developing some kind of standards pursuant to which they're doing this or are you just looking at each bank separately and saying, well, this looks too complicated a structure for your bank, but it's okay for some other bank. Are there some general theories or standards that are being used to compel whatever restructuring is going on?

HANSMANN: Okay, one more question.

MAHLE: Lisa Mahle from Goldman Sachs. My question is actually quite similar. I was curious what the panelists would think concerning what type of guidance should the government provide either publicly to the market or privately on a one-on-one basis with the institution as to how they should be changing their structures?

HANSMANN: Do we have volunteers here as to who wants to take this?

SIMONSON: In terms of the issues as to how should we be thinking about it, what are the standards, where should this go, I think these are excellent questions. I think there is a lot of thought that's going into that, but I think just recognize that there's a long way still to go with this process, and I would just note that any determinations related to the living wills under the statute have to be done jointly between the FDIC and the Federal Reserve, and on top of that, I think would be, certainly when we're talking about the G-SIFI type firms, principled decisions.

LO: I have a couple of comments about living wills and then about the question from the individual from Goldman. First, living wills, as sophisticated and as carefully crafted as they are, do take time to implement. I'm not sure what it means to die intestate, but it sounds painful, and I do know that probate court takes a while to work through a person's will. The problem with these kinds of wills in the financial system is that trust and confidence will not wait patiently for these kinds of resolutions. Last year, the clearing house ran a terrific war game about resolution, and it was an incredibly informative process. I urge all of you to take a look at their report. One of the things that it highlighted was that it takes time, effort, and the right expertise to resolve financially distressed institutions.

To the question about complexity, I would argue that the solution for complexity is more complexity—by this, I mean better technology. For example, my engineering friends tell me that there does not exist a single person on this planet that actually knows how to build an iPhone from beginning to end. It is an incredibly complex device. But it's totally simple to use. I think we should be challenged to come up with simpler devices to deal with complexity, and let me propose one to be concrete. Instead of living wills, particularly in situations where time is of the essence, there are a number of new financial innovations, more complex instruments, one of which I think is really quite interesting was suggested by Jeremy Bulow, Jacob Goldfield, and Paul Klemperer called Equity Recourse Notes (ERNs). This is a very simple idea on the surface, but it takes a lot of financial engineering to have crafted it. It's a bond, and the bond is issued by a bank. But the bond has a feature that if the equity price of the bank goes below a certain threshold, then the bond pays out coupons not in terms of cash, but in terms of equity. So this is a mechanism that, when issued, will provide automatic stabilization for a bank that becomes undercapitalized. It is more complex, but the

result is it's a lot simpler in terms of what the consequences are, and in that case, you won't ever need a living will because only some extraordinary catastrophe would get you to the point where you become undercapitalized and are not able to raise capital.

Now let me respond to the second question. I'm in no position to answer that, but I want to make a comment that for someone from Goldman Sachs to be asking someone from the government to give guidance as to how they should organize Goldman's business, I find extraordinarily troubling. This is not meant to be a criticism of you—I understand exactly why you're asking, because you have to deal with government regulations—but I view this situation as the tail wagging the dog, and it really is not how financial innovation ought to be conducted.

PANEL IV: Cross-Border Resolution

MORLEY: Let's get started. We're about to begin our last panel. Thank you for sticking around to the end here. Our last panel is talking about cross-border resolution, and we are pleased to have the presence of several distinguished panelists. First, we will hear from James Giddens and then we'll hear from Dick Herring, and then we'll hear from Seth Grosshandler, and then finally, Jon Macey will conclude. So, James, we will turn the time over to you.

GIDDENS: Thank you. As the other panelists have noted, the liquidation process is an evolving process, and no regulation or no solution is perfect or static. I should note that commenting on legal ingenuity, already many, many firms and lawyers were giving attention to how to mitigate a possible FDIC receivership in terms of seeking to ring fence U.S. related assets outside the jurisdiction of the U.S. and engaging in other restructuring efforts. All of this highlights the fact that you have the enormous complexity of how do you reconcile competing jurisdictions and competing interests.

There are two principal approaches to cross-border resolution: Universalism and territorialism. Universalism contemplates a centralized administration of a debtor's assets in a single primary proceeding with perhaps minor ancillary proceedings in other jurisdictions. Territorialism reflects the dominant historical reality of separate and distinct insolvency proceedings in each jurisdiction in accordance with local insolvency laws. The use of cross-border consensual protocols between debtors falls somewhere in between. From my perspective gained during my tenure as the liquidation trustee for Lehman Brothers Inc. and MF Global Inc., I have come to this thought about our subject this afternoon. Universalism

may exist in certain procedural accommodations, but on crucial and substantive economic issues of importance to major creditors and regulators, territorialism is absolutely triumphant. Let me step back a bit and walk through the looming danger to most major corporations with a complex network of a holding company and multiple subsidiaries and affiliates in a variety of jurisdictions. When a global business flourishes, its individual units cooperate in support of a common enterprise, often with centralized corporate control and global cash management. When the business fails, the tools of cooperation used to service global clients often become the basis of disputes between the individual units, because they are subject to their own distinct insolvency proceedings. What is the impact on the former affiliates now cast alone on a swirling sea of cross-border proceedings? Essentially, a free-for-all. They have their own venal interests and substantial inter-corporate claims, guarantees, multiple creditor constituencies, competing regulators, and differently defined duties in their local jurisdictions. With all this, they must attempt to resolve disputes consensually or through cross-border litigation.

The multi-national character of the failed businesses leaves its mark on every aspect of the proceeding, from the political pressures involved to the clash of differing legal regimes. In an ideal world, we might be able to avoid some of these disputes if there were one major global proceeding for all the entities in a corporate group. Unfortunately, this is not the world we live in, and sad to say, nor has the experience such as Lehman—the largest bankruptcy in history—or MF Global—the 8th largest—indicated much progress on this score. Let's look at the major problems that arise when former wholly owned and controlled subsidiaries become adversaries in the scramble for assets. In the absence of any binding requirement for coordination with proceedings in other jurisdictions, the use of consensual protocols are

sometimes explored and employed with the intention of facilitating cooperation such as exchange of information, documents, etc. While these efforts represent a sensible approach to minimizing conflict, there are significant limitations to their effectiveness. As such, these measures exemplify the simultaneous progress and deficiencies that define the recent history of the mechanics of cross-border resolution.

One proposed solution was the 1997 model law promulgated by the United Nations Commission on International Trade Law known as UNCITRAL. This model was premised on comity for another sovereign's law, assuming due process and a quality of treatment of domestic and foreign creditors among other factors. The model sought to promote a universal approach of having one or more jurisdictions designated as predominant under the concept that such proceeding was a center of the main interest of the enterprise being reorganized or liquidated. The theory was that one primary proceeding would allow and enhance payments to creditors, reduce administrative cost, and overall produce a more efficient process. In the United States, the model law has been adopted in the form of amendments to the bankruptcy code—in particular Chapter 15—which among other things, allows for the recognition in the U.S. Bankruptcy Court of foreign insolvency proceedings. Where the foreign main proceeding is filed in the debtor's home country, Chapter 15 now mandates cooperation—whatever that may mean—thus exhibiting the U.S. preference for at least a modified form of universalism. Under Chapter 15, a foreign representative could theoretically request that the primary administration of a debtor's case be transferred to a foreign country, that the U.S. assets be returned, and that U.S. creditors be required to file claims and be subject to a foreign country's jurisdiction. However, a study of more than 300 Chapter 15 applications indicates very few in which jurisdiction or control over assets or even a shared process in claims was

transferred to a foreign primary proceeding. Yes, some ancillary relief was given, but that was all. The United Kingdom has also adopted the model law with the enactment of the Cross-Border Insolvency Regulations of 2006.

Let's turn to MF Global. A major dispute related to my claim as trustee that \$640 million in assets held by the U.K. estate was in fact property of U.S. commodities customers trading on foreign exchanges through the MF Global U.K. subsidiary. The U.K. administrators asserted that under U.K. law, these customer deposits had become general estate assets, not collateral held for U.S. customers. Under the Commodities Exchange Act and CFTC regulation 30.7, futures commission merchants such as Global must secure their current obligations and their contention obligations to repay or return margin to customers by maintaining, in a separate account, property sufficient to cover all such obligations. Thus assets for U.S. commodities customers trading on foreign exchanges such as the London Metals Exchange are called 30.7 assets. Unlike in the case of domestic futures and options customers, however, the rules do not require the commodities brokers to segregate the 30.7 customers' property. In fact, the rules permitted such firms to use 30.7 customers' excess funds for internal purposes. In essence, the CFTC rules in place at the time gave commodities brokers a legal right to leverage a client's assets. Only 10% of futures firms in the U.S. took advantage of this rule before the CFTC closed the loophole in 2012 upon recommendations that we made in reports and testimony to Congress. One of them was MF Global, which utilized the rule and exploited the rule to the fullest as senior executives at the firm grasped every possible bit of revenue in a quest to become an international financial powerhouse. Of course, MF Global had been operating on thin margins for years long before Jon Corzine's arrival in March of 2010. The thin margins were only exacerbated by the financial recession

and declining interest rates through 2009. One place that Global looked to satisfy its need for additional liquidity was the excess margin in the accounts in the U.K. Before 2009, Global had provided cash to Global U.K., and later the management made the decision in March 2009 to begin providing treasury bills, or T-bills, rather than cash as margin in the U.K. Under U.K. law, T-bills are securities; they are not cash or cash equivalents, and therefore were potentially client assets, not client money, a difference with a very important legal consequence. Furthermore, once the company collapsed, the U.K. administrators took the position that Global had in fact transferred absolute title to the 30.7 assets such that they were not even client assets, and the U.K. could properly use them for any purpose. As a result, Global had, at most, an unsecured claim for \$640 million. Obviously, this was a substantial component of the much-reported missing \$1.6 billion in customer funds. Fundamentally, this dispute between Global and Global U.K. arose from differing regulatory regimes. The CFTC rules allowed Global to exploit the gaps in customer protection to get more liquidity in the U.K. by posting T-bills—which incidentally can be purchased for less than face value—instead of cash. Ultimately, both Global and Global U.K. acted in their own corporate best interests as opposed to those of their clients. Disclosure to U.S. customers was inadequate and arguably misleading as to the adequacy of collateral securing their accounts. Unfortunately for customers, ambiguity in U.S. regulation permitted this gamesmanship to put their assets in jeopardy.

In my view, it is yet to be demonstrated whether the universalist approach can achieve the desired goals of more efficient resolution of insolvencies and greater preservation of assets. The age old issue of can Tobago bind the world is still with us. Will the world recognize the asserted extra-territorial jurisdiction of a foreign insolvency court over domestic

assets and creditors? Consider how enthusiastic U.S. holders of Argentine debt would be, being subject to a primary proceeding in Argentina. The success of universalism depends on who the principal parties are, what their economic interests are, and still to paraphrase Harold Lasswell in practice, “the issue of who gets what, when, and how.” To be sure, one main proceeding from an entire corporate group will likely lead to some administrative efficiencies and savings, but it is not yet proven to secure greater recoveries for creditors. Protocols often work because they are consensual and there have indeed been instances of cross-border protocols such as in Maxwell Communications, but that was only because the parties deemed it was in their best interest. In the end, the recovery of assets in the U.K., and the credible projections that the U.K. administrators made, made the dispute academic. I and my U.K. counterparts were prepared to litigate vigorously and to take comprehensive discovery including multiple depositions, and we did argue our positions in the U.K. courts. The prospect of a prolonged and costly legal battle was clear. I should just note incidentally, that we did not sense in any way that the U.K. courts were at all prejudicial to the interest of U.S. customers, and the courts did rule in our favor on more than one occasion. In the end, the recovery of assets has indicated successfully that the distribution to unsecured general creditors might approach 100%, and thus it made our dispute somewhat academic. After a bilateral agreement was negotiated between the U.S. and the U.K. and all the parties and interests, not only the administrators but Louis Freeh, the Chapter 11 trustee for the holding company, Securities Investor Protection Corporation, the Securities and Exchange Commission, CFTC, and the Financial Services Authority in the U.K., and all the parties—at least after vigorous negotiations—reached a settlement. The ultimate lesson to be learned here is that when substantial economic issues are at stake and recoveries to competing creditor

constituencies are material, it is unlikely that fiduciaries or courts or creditors will willingly give up perceived legal advantages of a territorial approach for a universalist approach.

Thank you.

MORLEY: Thank you. Dick Herring.

HERRING: [[CLICK HERE TO VIEW SLIDES](#)] Thanks very much. Oddly, I think the sequence on our panel is precisely wrong. I am going to show why earlier crises in '70s and '80s and '90s should have led us to expect the disorderly interventions and resolutions that occurred in the recent financial crisis. First, I want to thank Roberta, Gary and Andrew for their invitation and for their persistence in keeping to a schedule the hurricane notwithstanding. I would like to do is go through a bit of the history of why these problems of cross-border cooperation in a crisis are so insoluble, and equally why we should not have been surprised that so little international cooperation was evident during the recent crisis. These are all things we knew, most recently with the LTCM collapse. Yet there is no evidence that any official regulatory organization was working on a substantive solution until very, very recently, and that is quite troubling because rather than try to fiddle with more and more refined risk weights, I think we'd be much better off if we had focused at least some of those resources and energy on the challenge of resolving large failed institutions. The point I'd like to make first is that there are some differences in degree—that is, we have the same problems within the United States but we don't always recognize them. But, the differences in degree are so substantial that they amount to differences in kind when you start crossing multiple national borders. The upshot of all this is going to be that the challenge of trying to harmonize regulation is not unlike trying to institute Esperanto. The challenges are so profound that you've got to find a different answer to the problem.

What about the differences in degrees? First of all, we have a lot of corporate legal and regulatory complexity in the United States. Consider any one of our large globally significant international institutions. They all have a very complex U.S. footprint, doing lots of different things subject to lots of different specialist regulators, some of it performed by individual states. There is no guarantee that all of these people will cooperate at one time, should something go wrong. It will require a lot of collaboration that really doesn't have an institutional infrastructure to back it up. It is made worse by the fact that these different entities have different objectives. Some of them will be focused on protecting a particular group of clients, some of them, clients in a particular region, some of them may be looking at financial stability, but none of them will be looking at what, in fact, is good for overall financial stability for the world economy. They also have different legal obligations. This doesn't presuppose that there is bad will between the regulators, but if you're an insurance regulator, your responsibility is to protect those assets for the benefits of the clients that you are supposed to be protecting. There are also huge differences in powers. We'll get into this later, but it's not only theoretical powers but in fact practical powers. Some agencies are woefully understaffed, some don't even have the powers of enforcement, and so even when there is a will to coordinate they may lack the ability to do so. Then of course you always have the potential for jurisdictional disputes. This can sometimes play out in ugly ways. I'm sure we're all familiar with anecdotes of various entities like the OCC or the OTS keeping the FDIC out of examinations even though it is a shared responsibility, because they do not want to be compelled to do something they'd prefer not to do.

The differences in kind are in fact so large that they are qualitatively different. Let me just start at the top and work my way down. First of all, there's absolutely no mechanism for

forcing authorities in different sovereign nations to agree. We don't need to belabor this point here, but it is fundamental. At a minimum, you're going to have formidable challenges in coordinating and information sharing, and it's going to be very, very difficult to figure out a way to harmonize and insure a cooperative outcome. We do have a lot of memoranda of understanding but they are unenforceable. They are statements of intent, and they don't really work if the counterparties conceal necessary information. Often this is the essence of coordination problems. Domestic regulators will fear the domestic consequences of taking aggressive action, even when it is amply justified by the facts. Democratic oversight of supervisors tends to favor forbearance. The supervisor's lot is an unhappy one. They will get blamed when they do something that harms some particular interests such as closing, but if the insolvent institution can limp along with various public subsidies they will be generally judged to be effective. It takes enormous courage to defy powerful special interests to protect taxpayers.

Supervisors also fear the leak of information. This goes back to the disclosure session earlier today. There is always the fear that the disclosure of unfavorable information could cause a liquidity problem that would render the bank insolvent.

Even when there is a willingness to share information, some information is more easily shared than other information, which may be more valuable. Some information, hard information, which turns out to be not worth very much given the accounting standards we have—it's stale and it's backward-looking—is more frequently shared. But very rarely do you find sharing of soft information like what do we think's going to happen next quarter with this bank or do we think the executive is incompetent or a variety of things that would be very useful to know but very unlikely to be conveyed. It's the same kind of fear that works within

a company. Within a company, if you're a trader sitting on a bad position, you're going to be very reluctant to report it to your superiors. You're going to hope that if you hold onto it long enough, things will turn, and you will in fact be proven right or at least not have to face the consequences. The same thing is true with sharing among supervisors. If you've chosen not to take action, you realize that sharing the damaging information with another supervisor may in fact force you to take action. That may not be just because the other supervisor is being aggressive, but it could be that his particular legal structure requires him to act if he knows that an institution is likely to become insolvent. Essentially every time you include somebody else on the chain of information, it's more likely that information is going to leak. That is a huge set of problems, but of course not the only obstacle to achieving cooperative results.

There are even more important conflicts of interest between home and host countries, and these show up in a variety of different contexts. If creditors of all bank affiliates—and this is what Mr. Giddens described so well—have access to the same pool of assets in the same location, you have a universalist solution and all of these problems just float away. But unfortunately, the precise jurisdiction of the office that you're dealing with often does matter because ring fencing is a common response by many host countries. And ring fencing or the possibility of ring fencing is, in fact, the root of most of the conflicts, and it leads, of course, to fragmentation of oversight and supervision and very imperfect collaboration both within specialist supervisors in a country and even more so cross-countries. You saw this very neatly reflected in Barings, where none of the supervisors felt responsible for what was going on in the Singapore branch because each thought another supervisor was handling it.

There also are profound differences in philosophy of what you do if you have a large, financial institution in trouble. Some countries rely primarily on transparency and market

discipline. I would not put the U.S. in that group, but New Zealand actually does operate in that way. On the other hand, in other areas—and much of Continental Europe is in this category—there is a tradition of official intervention and support. It's simply presumed that any large institution will be bailed out by the authorities.

Another problem arises in cross-border activities in which supervisors must deal with the polite fiction that all nations are equal. This, of course, ignores some very important asymmetries that can matter a lot in disputes between nations. First, there are huge disparities in resources across countries. This turns out to be true in terms of the human capital, the number and quality of employees, and the financial resources the other authority may have to deal with it. Many countries have banks with balance sheets that are a large multiple of their GDP, and it's very unlikely that they have the financial resources to deal with a major problem. Financial infrastructures also differ. For example, the quality of external audits is quite variable. We may be skeptical about the quality of audits in the US, but they are a paragon of quality in comparison with audits in some other countries. It's often useful to have informed, institutional creditors in the market because they do provide some market discipline and at least some market information that is otherwise missing. It's also useful to have a strong independent financial press that tends to look at information skeptically and may initiate deeper scrutiny. That's very, very unusual in most parts of the world. And of course it's very useful to have the ability to enforce a decision once you've made it.

A primary difference, though, is in vulnerability. If a parent bank is systemically important in the host country, which is true in many Eastern European countries and many other parts of the world, where the largest bank in the country may be a subsidiary (or sometimes branch) of a large US or European bank, then you potentially have a problem. If

it's systemically important in the host country, the host country certainly wants the home country to do something about it, but that's probably going to depend on whether that foreign subsidiary is economically significant within the parent banking group. Risk is also asymmetric. The supervisory responsibility and fiscal responsibility and accountability to the public may be very misaligned. The home country may lack the incentive to bail out a foreign subsidiary, and the host country may simply lack the power and resources.

Another key difference is over what should trigger a resolution. It seems obvious, but different countries handle it different ways. In the case of Northern Rock, the U.K. actually did it in a very U.K. sort of way: they appointed a committee of the great and the good to determine whether after Northern Rock was living on government handouts for 6 months, it in fact, was insolvent. It took a while, but they came up with the right answer, but it's not very satisfactory procedure in general. Which accounting standards are going to prevail? If you're using negative book value, we know accounting standards always lag what's going on economically, so it's a recipe for delayed deferred intervention which is costly and exacerbates conflicts. What standard of proof is necessary? If there is a review—and in any democratic country, there should be—then often the regulators are going to feel that they have to be able to establish beyond any reasonable doubt that the entity was, in fact, bankrupt. For both reasons, a book value standard is likely to lead to very large which must be allocated somehow. How about failure to meet liquid obligations when due? I think that's the most common trigger. This would qualify as a trigger for intervention almost everywhere, except you have to be mindful of the fact that just as banks evergreen loans to customers, the authorities can often evergreen liquidity problems for banks, particularly in a setting where their actions are completely opaque and not publicly disclosed. We had a long discussion

about this earlier today. Some people look to the ratio of the book value of equity to book value of assets and insist that it have to be above some positive threshold. That was the whole intent of the FDICIA reforms in the United States. They didn't work well in the end because the accounting standards were so inadequate, but I think it is realistic at least to think about a zone of insolvency, because there is so much uncertainty involved in getting a precise value on bank assets. If you're going to intervene effectively, you've got to be sure you do it sooner. In some countries—and Switzerland is a prime example here—you can intervene simply if you think the depositors are going to be at risk. I would say that market value information ought to be introduced, but I don't know anywhere in the world that has taken such an approach, although if you look back, it would have told you a lot about which institution to worry about in 2008.

What happens if, in fact, you decide it's insolvent? Everybody agrees something has to be done. Where do you do it? Is it the chartering jurisdiction? The seat of management? The principal place of business? The largest concentration of assets or the largest concentration of creditors? In the case of BCCI, the answer to each of these questions was a different country, and that was by design. Banks are very clever at finding these loopholes in the system. Also, there are differences in who initiates the process. Is it going to be the chartering or supervisory authority? Sometimes. Creditors? That's standard in bankruptcy. The courts? Or the bank itself? That doesn't happen in the U.S., but in some other countries banks are subject to bankruptcy laws just like any other corporation. Differences regarding how the business and its assets are mapped into legal entities may be critical. I can add nothing to what Mr. Giddens had to say about that. It's a mess. We hope that living wills are going to make it better, but there's no guarantee.

Then there are differences in the goals of bankruptcy. Surprisingly, not everybody agrees that it should be to maximize the bankruptcy estate for the creditors, much less systemic stability, but in some cases, it's to protect the banking industry domestically. There are a whole range of objectives, obviously. Some even are the maintenance of local employment, but the one thing you'll never find as a goal of bankruptcy is minimization of spillover costs in all countries in which the bank conducts business. It's just not there. Not here. Not anywhere. Preservation of going concern value would make a lot of sense, and it may well involve stays, but stays are very problematic in an institution where the counterparties are obliged to hold risky assets in a dynamic market in which prices are moving rapidly. Counterparties can't hedge against such risks because they cannot know when and at what price they can exit from the position.

Then finally, there are differences in treatment in foreign creditors. I'll be very quick in dealing with this. The U.S. has a huge problem in dealing with the rest of the world because we make a very hard line distinction, which apparently became law because of an obscure budgetary reason, not because anybody thought it good policy, but domestic depositors come ahead of all foreign depositors. We have a very, very tight domestic preference, and so there's no pretense that our approach to the world is universalist at all, and indeed the state of New York will treat a foreign branch as if it were a subsidiary if it falls into an insolvency range. You've got real problems there in simply making the various laws even relate to one another. The problem is, of course, that this leads to ring fencing out of self-protection, not necessarily to be aggressive, but if you take this to its logical extreme, it has some very troubling implications.

The whole thrust of the Basel approach to regulation and supervision has been to focus on consolidated supervision. You're supposed to look at the entire entity, and there are very explicit rules for what you consolidate and what you don't, but the underlying assumption is that whenever you need to, you can move capital from an area where it's in surplus to an area where it's in deficit. The same assumption applies to liquidity. But that's exactly what doesn't happen in a crisis. In a ring-fenced world, that is not possible. The same is true of consolidated risk management. You've got to have two different kinds of strategies. One that you can play out in normal times when you can move funds around freely and the other when you're going to be ring fenced.

There are a lot of other details that I will not go through. I do think at some point it would be interesting to talk about QFCs, qualified financial contracts, because in a very real sense they can loot the bank before creditors have access to the assets, but I did want to emphasize one other thing, and that is does the authority have the power to slow things down without producing a massive stay? That's essentially what a bridge bank does. A bridge bank tries to keep the systemically important operations going while they resolve all the questions about what is the actual best disposition of assets.

One of the essential things that we find goes wrong in the bankruptcy process is that courts move with very deliberate, often highly contested speed with numerous procedural delays, while markets move at the speed of light. Herstatt took more than 35 years to resolve. BCCI took at least 20. And how long do we expect that it will take to resolve Lehman Brothers?

GIDDENS: Well, the foreign administrator for the U.K. proceeding said it would take him at least another ten years to unravel the millions of derivative contracts and the like. I think we expect to be substantially done long before that.

HERRING: Then of course the issue that foreigners really dislike is that in the U.S. this could all be trumped by a criminal proceeding. We used the RICO act against BCCI. US officials would argue that the estate got substantially greater assets as a result so that all creditors were better off as a result, but it was heavily resented in the rest of the world.

Finally, it's very, very difficult to agree ex ante on sharing of losses. To understand that, you need only look at Europe today. They are having huge problems even thinking about having common deposit insurance across the EU, and they've just committed to doing some sort of common resolution policy without any real notion of how to fund it. It's just a very difficult thing to make an open-ended commitment ex ante, but in fact, it's much more difficult ex post, because ex post, you'll have the allocation of losses complicated by questions of why did it happen, who was a fault, which supervisors failed to prevent it, and why should my taxpayers have to pay when it was your incompetence that led to the problems? I think that there is very little hope of improvement. All of which leads to the punch line. These obstacles to a harmonized resolution policy are so difficult that I think supervisors and regulators everywhere have realized that unless they're content to live in a ring fenced world—and this has some profound consequences for the way in which banks operate—then you've got to find a way to finesse these difficulties. It's going to be impossible to negotiate them away. There's really no way to harmonize all of this, and that, I think, has led the U.S. regulators in particular, recently joined by the U.K. regulators, to focus on a strategy—the single point of entry—which basically finesses all of this by trying to take

all of the operating foreign entities out of any insolvency proceeding and take the holding company through bankruptcy.

MORLEY: All right, thanks Professor Herring, that'll be a great segue to the remarks of Seth Grosshandler.

GROSSHANDLER: [[CLICK HERE TO VIEW SLIDES](#)] First of all, thanks for having me. I am very honored to be here. This is undoubtedly the closest I'm ever going to get to getting into Yale Law School.

There are new tools for resolving cross-border financial groups, and I'm going to quickly get to single point of entry and there've been other speakers before that have spoken about single point of entry. I have some boxes and arrows that will get into a little bit more detail and if I have time, I'll get into some of the treatment of derivatives, QFCs, cross-defaults, all that kind of great stuff. The Financial Stability Board's key attributes: Establish standard set of resolution powers. It was largely tracking Orderly Liquidation Authority, in fact. Ability to establish bridge entities, transfer assets free from consents, override ipso facto defaults under QFCs and temporary liquidity. I would note—I'm not sure it's on the web site for this conference—that the FSB just put out 2 weeks ago, maybe, a progress report on ending too big to fail that talks about how, in fact, those jurisdictions have implemented the key attributes. In the U.S., we have Orderly Liquidation Authority; in the European Union, they're working on the Recovery and Resolution Directive. Hopefully that will be done end of this year. The United Kingdom has the Special Resolution Regime for banks, Special Administration Regime for broker-dealers.

There are two basic strategies. There's the multiple points of entry—a lot of people go into insolvency proceedings, as we've heard, it really works very poorly in these

multinational bank insolvencies—and then there’s single point of entry. This is obviously very stylized and very simple. If we have a U.S. bank holding company, let’s say it has a U.S. bank subsidiary, a U.K. broker-dealer subsidiary, and an unregulated subsidiary somewhere, it might be non-U.S. The holding company guarantees QFCs of maybe not only the unregulated subsidiary but the U.K. broker-dealer and the U.S. bank, and they’re all intertwined. The capital stack at the U.S. bank holding company is it has equity, it has subordinated debt, it has senior debt. We won’t linger on multiple point of entry, because that’s everybody goes down with all the problems that we talked about. The U.S. bank would go under the Federal Deposit Insurance Act, the U.K. broker-dealer under Administration or the Special Regime, and then the unregulated subsidiary under regular law, and we have problems, problems, problems.

This is how it’s supposed to all work. The U.S. bank holding company goes into orderly liquidation receivership up at the top left. All of its assets are transferred to a bridge holding company, and that’s the arrow underneath, the transfer of all assets, so that’s the equity in the U.S. bank, it’s the equity in the U.K. broker-dealer, it’s the equity in the foreign subsidiary. The guarantee liability of all of those QFCs also transferred. Fine. And what happens to the capital stack at the U.S. bank holding company? Well, the equity is wiped out. The sub-debt might be wiped out, it might get equity in the bridge holding company. The senior debt at the failed bank holding company is going to become equity and maybe some debt at the bridge holding company, and eventually this bridge holding company, like a phoenix from the ashes, because it’s a much better institution, because it has all the assets that its predecessor had, but a lot fewer liabilities, and so hopefully it will ultimately be floated to the public and/or sold, its subsidiaries sold, and it will keep on going.

What led to this insolvency? Who knows? But it's probably an issue at one or more of the subsidiaries, asset losses, losses on assets, that sort of thing. Part of single point of entry that makes it work is that there will be assets that the U.S. bank holding company can contribute to the subsidiary that has the losses to recapitalize it. That could be in the form of actually transferring assets and/or relieving debt. If the U.S. bank holding company has lent money, let's say, to the U.K. broker-dealer, that debt will be converted into equity, thereby recapitalizing the U.K. broker-dealer if that's where the problem was, and so all of a sudden now, that is what transfers the loss, which was at that U.K. subsidiary, up to the holding company creditors, essentially is what is going on there. So that all looks great on paper. There are a number of technical issues with how that all works, which I don't have time to go into.

The key to this working is will people continue to deal with the U.S. bank, the U.S. broker-dealer, and that subsidiary after this all happens? There are two aspects to that. First of all, there are creditors who have existing contracts, existing derivatives. Can they close out? In OLA section 210(c)(16) of Dodd-Frank—and there's an FDIC rule that implements that statutory section—nullifies cross defaults, because typically that counterparty who has the holding company guarantee is going to document it under an ISDA master agreement. There is a guarantee. The bankruptcy of the guarantor is a default, allowing it to terminate that derivative with the subsidiary. Even though its guarantor—in this hypo, the guarantee is transferred—is a better entity than its predecessor, it has that default. OLA nullifies that default. There are significant cross-border issues with that, particularly if it's an English counterparty dealing with an English subsidiary under an English law agreement. The RRD in Europe may go a significant way to remedying that, allowing the U.K. courts to recognize

210(c)(16) under Orderly Liquidation Authority. You have that cross default problem, that's the existing creditors, but how do you induce people to extend new credit? How do you keep the depositors from running? How do you keep the business intact? It's a thorny problem. First of all, there needs to be liquidity. Because there will be some runs, no doubt. You can't have the liquidity drain crash the institution, so under OLA, it's the Orderly Liquidation Fund, that does that. Key to this is the financial market utilities, who are mega-creditors of these institutions, and there is a lot of work that's been and being done to make sure that the FMUs will continue to do business. Maybe they'll require more margin, that sort of thing, but if you have that signal of they're continuing to do business, maybe that will keep things going. Then there's a lot of PR from the government at the time and also preparing creditors in advance for this to happen, and the hope is that it will work very similar to an FDIC receivership of a bank where it closes on Friday, opens up on Monday, and people continue to do business. Most of those people, though, are depositors who have deposit insurance, but that's the goal.

MORLEY: Thank you very much. Jon Macey, you are the last presenter.

MACEY: [[CLICK HERE TO VIEW SLIDES](#)] Thank you very much for staying here for the last talk of the afternoon. My talk really does follow seamlessly on the previous three talks, and what I say is going to echo some of what's been said. I'm going to draw on some of what's been said as further support for some arguments that I'm going to be making here about what I think James Giddens described very well as the universalism in approaches to bank solvency. This is a better term than the one I use in my paper, which also is about cross-border cooperation and coordination. As Richard Herring mentioned, history has valuable lessons here. This slide shows a crowd outside of Herstatt bank in 1974 when it failed as a result of certain foreign exchange problems that we're going to talk about in the course of

cross-border restrictions. My first point simply echoes what James Giddens said, and here I'm citing the Basel Committee on Bank Supervision. James said territoriality is absolutely triumphant over universalism. He's absolutely right. As the Basel Committee observed, "there has been no progress towards the development of a framework for cross-border enforcement of resolution actions."

Now here I've got to part ways a little bit—not a lot—with Richard Herring in two respects. Number one, what I try to do in my research is to draw on political science in order to explain the reason why we don't have global coordination in the context of resolving bank failures. And two, to say that if we're going to explain why it is that we don't have cross-border coordination in bank failures, as was being described by the Basel Committee and by James Giddens, one thing we need to do is to look at the fact that this lack of cooperation is in sharp contradistinction to many, many other areas in banking regulation where we observe a tremendous amount of cooperation. In capital requirements—what has been described in previous panels as the most important aspect of bank regulation – it is pervasive. We have a tremendous international infrastructure that extends to a lot of other areas, an extensive global regulatory regime as it's been described, extensive international regulatory cooperation, but not in this. What is it that's different? Here, I want to turn to something that Seth Grosshandler pointed out in one of his slides that I think is really profound where he was talking about an area of cross-border resolution—correct me if I'm messing up what you said—but there's one area...

GROSSHANDLER: I'm wondering what was profound.

MACEY: Well, by all means, allow me to proceed, then. Seth did identify one area where we observe cross-border cooperation, and that has to do with the Financial Stability

Board's assertion about the powers that all SIFI home or host jurisdictions should have, this range of powers. In essence, he captured (profoundly) my political science story. In previous work, I've articulated what I observe to be, and mainly in the context of non-cross-border failure, the preconditions in global regulation, where we are most likely to observe international cooperation. Basically, if you look at all these global coordination is used as a regulatory policy lever, I think Seth's observation falls into that, increasing power and where it permits regulators to achieve regulatory cartelization.

A couple of quick examples. Let's think about why would the Bank of France, or the French government more generally, would suddenly decide that they want to get rid of the French franc and move to the euro. One political science explanation that I find rather compelling is the idea that world foreign exchange markets and the economic power of George Soros and others like him have gotten so big that a country, even a fairly large country like France, had lost its ability unilaterally to effectuate monetary policy through open market transactions and the like, and that rather than having no power over monetary policy it would be better to join a global cartel in the form of the European Central Bank, where they influence what's going on in the ECB in Frankfurt. So we observe that. Similarly, if we look at the Basel Capital Accords, we look at this history of the Japanese participation in the Basel Capital Accords and the idea is Japan wanted a domestic Japanese capital regulation. They did not have the political power within the Japanese Diet to effectuate this, but they go to Basel, Switzerland, and they go back to Tokyo and they say everyone in the world is going into these Basel Capital Accords, and we're going to be cut out of global financial markets unless we get on this wagon. They were able to use this global accord to leverage their own power. Basically, we're not at MIT, and this is not rocket science, it's just basically the idea

that regulators like international regulatory cooperation when it's in their interest to like it, and they don't like it when it's not in their interest. So with respect to Seth's point about the SIFIs, yes, it's in their interest to want more power to regulate and this simple fact explains the policy preferences that we observe. Basically, my argument is that it's not surprising that we get a ton of cooperation with respect to capital accords, and it's also not surprising that we get very little cooperation with respect to cross-border regulation. That is what I would call my easy point.

I have two other points I'll make very quickly that are more contestable and that I particularly am interested in developing, because notwithstanding the fact that the hurricane gave us an extra year to think about these issues, I haven't quite gotten there yet with respect to these questions. One is what I would call my hypothesis—my theory—of cross-border resolution, and that is to say the more we move towards treating complex financial institutions—and they really are complex (this slide lists the 16 largest complex financial institutions and this lists the number of bank subsidiaries, massive numbers of mutual funds and SPVs, hundreds and hundreds, so in the case of Citigroup, 706; in the case of Lehman Brothers, 84; the numbers range from 48 to 706)—as a single entity by making the holding company a source of strength, by looking at subsidiaries to contribute, the more we do that, the less incentive we will have for global regulatory cooperation. Because one way we can have global regulatory cooperation is territorially—and expanding the territory or ring fence by limiting the territory, but even if we had a universal approach, any country can make, can create their homemade ring fence approach by saying, yes, we're going to be in the global universalist resolution framework, but these 42 SPVs and subsidiaries, they're not in it,

because they're solvent. We have that. That's my first minor hypothesis, that the more we go to a single-entity approach, the less cooperation we're likely to get.

My second hypothesis that I'm a little bit less sure about is the following, and I'm going to introduce this by telling a story, which is the BCCI story—Richard mentioned this. He mentioned in his talk the idea that we need to think about what he called the best way of resolving financial institutions. A lot of people think BCCI was the poster child of a horrible ring fence, terrible approach, and it went on for years, very inefficient. From a U.S. perspective, the BCCI resolution process is the model. Why was it a model bank failure from a U.S. perspective? If you look at it—and the U.S. took a totally ring fence perspective with respect to BCCI—it's a model bank failure, (a), because every U.S. creditor of BCCI was paid off 100% in full. But wait, it gets better. In addition to that, (b), the U.S. government, in the form of the Fed, made something like a \$250 million profit on the BCCI failure, because even after paying off 100% of U.S. creditors, there were still roughly \$500 million left in the pool of assets, and before repatriating those assets to one of the global resolution processes in London and Tokyo, the Fed extracted a \$250 million fine. The question that I'm trying to focus on is the following: What kind of a veil of ignorance do we have with respect to global bank failures? That is to say, is it, thinking about future—we haven't identified the firm, so they're going to be global failures in the future—and the question is how should we treat, say, and I identify specifically the U.S., do we think of the U.S. as being behind a veil of ignorance in the sense that they don't know—negotiating now in some international tribunal—whether they're likely to be back in the BCCI position so that they don't want a universal approach, they want a ring fence approach because it's much better for them—or, do they want to think,

well, we're behind a veil of ignorance, we don't know if we're going to be winners or losers, maybe we'll do the right thing and move toward a universal approach.

Let's look at what is known as Herstatt risk. Herstatt risk is the risk we observed when the Herstatt bank failed. It had foreign exchange transactions. Herstatt had entered into what were then—this shows how old this is—deutschmark/dollar transactions, but because of time differences between New York and Frankfurt, Herstatt had not paid out—the same thing happened with BCCI, and the same thing happened with Lehman Brothers—in New York. But, in fact it's not the failure that is critical here—although it's obviously a prerequisite—what is critical here is why wasn't the New York portion of this foreign exchange transaction paid out in the Herstatt failure? The reason is because the clearing banks and the settling bank in New York, which in this case was Chase Manhattan, were instructed by the Fed along the following lines, “well, why don't you, with BCCI, they're having a lot of problems, they've been closed down in London, why don't you, when there are transactions in which BCCI is on the receiving leg, take in that money. And when there are transactions on which BCCI is supposed to be paying out, why don't you hold on to the money intended to fund those payments?” And the banks followed these instructions and as a result of hoarding cash intended to settle trades we saw this huge imbalance in assets and liabilities. It wasn't random. This strategy allowed the U.S. to make such a large profit on the BCCI insolvency. My point is that to the extent that a variety of happenstance factors, and they relate from time zone differences—this shows New York, London, Frankfurt, Tokyo, Hong Kong—the U.S. is, from at least a U.S.-centric perspective, more or less in the middle of the time zones in the sense that there's a little bit of overlap with London and Frankfurt, no overlap with Asia in terms of hours when our particular trading markets are open, so there's a lot of opportunity for

the U.S. to engage in the sort of practices it engaged in when BCCI failed. A lot of financial transactions are still occurring in the U.S. Stock market capitalization is a very rough proxy for this—I'm looking for a better one. This slide is from the Bank of New Zealand's website, which is very good on this issue. The slide shows that country's Herstatt risk given what is a 16-hour time difference between Wellington and New York...One tentative thing I'm thinking about, and I'll stop with this, is if the U.S. expects, because of vagaries of time zone differences and its very dominant position in global clearing and settlement and this rather avaricious and very unique approach of the New York Fed to aggressively—not just taking the ring fence approach, but aggressively maneuvering itself so U.S. creditors (including the U.S. government to the extent that it is a creditor) are on the winning end when bank failures occur, then not only is the U.S. likely to be mildly opposed to a universalist approach, but to actually be very much systematically opposed. I'm not sure about this, but I just thought I'd throw that out there as a weak hypothesis that I'm working on. Thank you.

MORLEY: Okay, thanks very much. Why don't I start by asking if any of the panelists want to respond to the others?

HERRING: I guess I should respond to the issue about why is it that we all have trouble singing Kumbaya together when it comes to resolution, and I think that the reason is fairly obvious. It's all about money. Agreement about a rather abstract set of capital standards that are in fact implemented with huge differences across countries and in some places not implemented at all is not directly costly to taxpayers. It's pretty easy after the G20 meets to have a group that's instructed to build up standards that everybody should get to, but there's enormous trouble in getting from where people are to there, and it's not at all obvious that it's going to happen, particularly when it comes to the point of figuring out how you

share the losses. With regard to Herstatt, it seems to me there's a little revisionist history going on. Herstatt was a problem because it was closed in the middle of the clearing day in New York, as Jon noted. Chase was, indeed, the clearing bank for Herstatt, but they were instructed by the German authorities to stop payment because at that point, the German government had taken over Herstatt. You could argue that it was the first time that a government had acted in a way that interrupted financial markets in a major way and they damaging spillovers – including the virtual cessation of activity in the largest foreign exchange market in the world.

With regard to BCCI, I don't think the Herstatt risk is the issue—it happens to be one of the few things where we have cooperated and gotten something done. The Continuous Linked Settlement Bank, in fact, removes settlement risk from the U.S., and the U.S. really was in this position not so much because it was the largest country but because of Greenwich Mean Time. We're simply the last major center in the world at the Greenwich Mean business day, so all of the risk ended up here. Jon is correct: at one point, our time zone could have given us a strategic advantage, but it's not clear to me that we ever manipulated it in that way. I think the Fed was much more concerned that if the clearing house interbank payment system couldn't settle at the end of the clearing day, they would have to implement their unwind rule, which would oblige the Fed to intervene to avoid utter chaos in financial markets. That, too, has been remedied since then.

MACEY: So this business about Herstatt being closed in the middle of the trading day...

HERRING: In the middle of the U.S. clearing day.

MACEY: It was closed at the end of the Frankfurt trading day....

HERRING: It was closed at 3 o'clock, yes.

MACEY: ... which happens to fall in the middle of the U.S. trading day. That is true. It's also true that CLS, Continuous Linked Settlement Bank, has ameliorated but not eliminated this problem, because not all foreign exchange—well, large finance—

HERRING: The big ones are.

MACEY: ...the big ones are on it, but not all. But my major challenge for Richard is on his basic assertion that he says it's all about the money. Well, two things on that—one is we really have to distinguish two aspects of a bank failure. The first is the decision to close or resolve the bank, and the second is how we treat the assets and liabilities after the prior decision has been made. With respect to the first decision, that is not a zero sum game; by having early closure which mitigates moral hazard, we can increase the size of the pie by early closure, and people really understand that, I think, at least in theory, and...

HERRING: That's not the way it's working in Europe.

MACEY: Right. In other words, people understand the theory may not happen in fact, but after the institution is—and query, and this is an important question, Richard, which is to what extent is moving to a universal approach going to affect regulators' incentives with respect to early closure? Because if we think that it's going to make the problem worse than better, it may change our views normatively about a universalist approach. I'm not sure which way the sign goes on that, but I think it's a critical question. And then we have a zero sum game, which is, now the bank's closed, and the assets and liabilities are fixed, so what we're really worried about is how we're going to distribute those, and there it seems to me with respect to that decision, all we really, from a Coasean point of view, we care about efficiency. People want the pie—all else equal—they want the pie as large as possible.

HERRING: Unless they're taking a particular view of protecting their piece of the pie.

MORLEY: We're going to end promptly at 4:10, which leaves us a little bit of time for questions, so we'll take a handful of questions and then the panelists respond to them in the same pattern we've been doing earlier today. Yes, over here, sir?

SOMMER: Joe Sommer. I have one more or less in response to something Seth said—my usual disclaimer—you were talking about failure to deal being a potential major problem, and I agree with you with derivatives cross-default clauses, but in terms of systemic risk, what's so horrible if nobody wants to deal, the thing runs off public liquidity, and gently winds down? Certainly you lose growing concern value, but you don't lose the transaction stream.

MORLEY: We have other questions? Yes, over here.

KARGMAN: Steven Kargman. In the Lehman Brothers, as James mentioned, there was faulty party protocol involving at least a dozen different administrations all around the world which worked out fairly well. Unfortunately, there was one administration, the U.K., that wasn't involved. I'm wondering whether there are any lessons that could be incorporated in cross-border resolution and your thoughts on that based on the Lehman multiparty protocol experience which was unprecedented and usually in bilateral protocols in cross-border insolvencies.

MORLEY: All right, thanks. Let's start with those two questions, and Mr. Grosshandler, do you want to start answering that question?

GROSSHANDLER: Sure, so I think the question was is it such a terrible thing if people don't do new transactions with the subsidiaries after it's gone through this single point

of entry. Not the end of the world, no, but the hope is that, in fact, those will be viable going concern subsidiaries that really retain the value. But I agree, if people aren't doing business, it's still a lot more orderly, than a multiple point of entry, absolutely.

MORLEY: Mr. Giddens, do you have reactions to the question?

GIDDENS: Yes, you're correct, there was a so-called global protocol. There were 76 separate Lehman insolvency proceedings throughout the world. The three principal ones were the U.S. holding company and Chapter 11, the broker-dealer in the SIPC proceeding, and the U.K. I think the total number—if you divided up the assets—the holding company had was maybe 300 billion, the broker-dealer about 150 billion, and the U.K. about 100 billion, then the others had minor amounts of billions. The U.K., quite deliberately—and the administrators in the U.K. also happened to be the administrators of BCCI—but their view was we want no part of any kind of consensual protocol for various reasons. We don't want to be coerced by the U.S. bankruptcy court and committees in the U.S. and the like. Regarding the protocol, my overall conclusion was, it was a nice thing to do. It resulted in exchanges of information. They had lovely meetings in jurisdictions all over the world, but it had no substantive effect on resolving any of the significant disputes. The holding company and the broker-dealer of the holding company had serious disputes to the tune of about \$20 billion; there were depositions, litigations, same thing with LBIE, and all those were resolved through bilateral normal litigation approaches. The protocol also theoretically tried to do an accounting analysis of all the claims of all the entities and came up with the conclusion that my entity owed all of them \$30 billion and that they owed me nothing. Because of the complexity of the case and so on, that had virtually no utility, so superficially, the protocol was beneficial for information sharing, but when it came down to the real battles, they were

all bilateral, and indeed all the other subsidiaries who were parties of the protocol—I'm not aware of any significant dispute between the parties which was resolved by the protocol. The protocol was not binding. As I said, it led to occasions and information sharing and to that extent it was useful, so I see that as more superficial than a real breakthrough.

MORLEY: Please join me in thanking our panelists.