Convertible Securities and Bankruptcy Reforms: Addressing Too Big to Fail and Reducing the Fragility of the Financial System

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Conference on the Squam Lake Report: Fixing the Financial System

New York, NY

June 16, 2010

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The views expressed today are my own and not necessarily
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If it is possible to find any positives to take away from the recent financial crisis, an active dialogue between academics and policymakers about regulatory reform is one. The Squam Lake Group includes some of the most distinguished financial economists, and their thoughtful proposals have already had a significant and positive influence on the course of the debate over regulatory reform.

I'd like to start with a quote from the Squam Lake Report.

> "During the World Financial Crisis, several governments bailed out ailing financial firms through fiscal transfers and other mechanisms because they feared that these firms were too large or too systemic to fail without catastrophic costs. Many of our recommendations are intended to create a robust financial system in which any troubled financial company is allowed to fail."[1]

I agree wholeheartedly. In my view, the most important element in fixing our financial system is that we must end the notion that some financial firms are too big or too interconnected to fail. If a firm's creditors believe that the government will rescue them in times of trouble, they will have little incentive to exert market discipline and discourage a firm from taking excessive risk.

[1] Squam Lake Group, *The Squam Lake Report: Fixing the Financial System* (Princeton: Princeton University Press, 2010), p. 137.

Eliminating too big to fail should be the first priority of any regulatory reform. This is easier said than done. As the crisis has taught us, when the systemic risks are perceived to be large — and regulators are prone to see systemic risks under every rock — they will be very reluctant to close down insolvent firms or impose losses on creditors. So how do we reduce these risks so that regulators can credibly commit to a policy of allowing financial companies to fail and not resort to rescues or bailouts?

Broadly, I want to discuss two complementary approaches to this problem. First, we must seek ways to ensure that a financial firm that is susceptible to creditor runs has a capital structure that reduces the likelihood of insolvency. The second is to ensure that if such firms do become insolvent, there is a credible way to allow them to fail without disrupting the entire financial system.

The first approach is to design capital structures with corrective mechanisms that kick in when a financial firm displays signs of trouble, but when it still has positive economic capital. This is the general philosophy behind prompt corrective action — the driving principle behind the FDIC Improvement Act of 1991. Yet, prompt action need not come only from regulators. The mechanisms could exploit market forces to address developing problems without requiring regulatory interventions. In general, I interpret "prompt corrective action" to include both regulatory-based and market-based actions.

While these mechanisms can help keep firms from slipping into insolvency, there will be times when failure is the only option. Thus, the second approach is to design a resolution mechanism that will close failing financial firms when early intervention has not led to the firm's recovery. I believe the best model for this mechanism should be bankruptcy, which imposes an orderly resolution of counterparty claims according to predetermined rules. In addition, certain forms of early intervention can help to lower the costs of permitting firms to fail. For example, a regulatory requirement that financial institutions develop living wills will help make it easier to unwind these firms in an orderly fashion, consistent with their complex corporate structures, and at lower costs. Furthermore, living wills can provide insight into the degree of systemic risk that these firms impose.

I'll go into more detail as I discuss the Squam Lake proposals. While I may focus somewhat more on our disagreements — nobody wants to hear how much we all agree with each other — I actually find much to agree with in this impressive document.

Indeed, my own views have evolved as I have discussed regulatory reform with various members of the group.

Before I go on, I want to apologize to the NBA and the city of Los Angeles, and taking no sides in this week's championships, I will refer to the Squam Lake Group as the Lakers for short.

Market-based Prompt Corrective Action and Hybrid Securities

Let me first talk about market-based mechanisms as a form of prompt corrective action. I think that we have to acknowledge that heavy-handed regulation that focuses on what activities institutions can and cannot do runs the risk of firms devising ways of getting around the rules, forcing activities into the unregulated sector and creating risks elsewhere. Regulators can also find themselves behind the curve as financial markets evolve and innovation changes the way firms function. Discretionary supervision and regulation alone are not sufficient to prevent excessive risk-taking or prevent future crises. Thus, I think reform must seek ways to strengthen market discipline rather than seeking to override or replace markets in controlling risk-taking.

One idea is for a firm to use reverse convertible securities that would function as debt in normal times but would convert to equity in times of stress. We can place the various proposals for these mandatory convertibles along a continuum. At one end, typified by the work of Mark Flannery, reverse convertible securities are a mechanism for addressing problems early on.[2] Conversions could be triggered by financial troubles at a single firm and, thus, could occur relatively often.[3] At the other end, typified by the Lakers' proposal, reverse convertibles are a type of prepackaged recapitalization for a banking system already in a crisis. Thus, from the Lakers' perspective, convertibles are not intended for prompt corrective action but as a way to avoid government bailouts during a crisis, when firms might otherwise have trouble raising capital.

The Lakers propose that convertible debt convert to equity only if both the firm's financial condition deteriorates and the regulators declare that the whole banking system is in crisis. The idea is to ensure that a single bank's managers do not get a reprieve from defaulting on the firm's debt due to a financial setback. The Lakers worry that managers will act inefficiently if they expect this reprieve, and so they want to

[2] See Mark Flannery, "Market Value Triggers Will Work for Contingent Capital Instruments," Working Paper, November 2009.
[3] In Flannery's proposal, the trigger is the market price of equity.

retain a firm debt claim to enforce managerial discipline, except when regulators pull this second trigger to declare systemic crisis.[4]

I have three main concerns with this view.

First, as the Lakers understand, regulators will find it very hard to pull this second trigger until very late in the game. The double trigger is designed to work only when financial conditions have seriously deteriorated and regulators' commitment to enforce conversion is probably not much of an issue. Therefore, these securities would not help provide any type of prompt corrective action to prevent problems. They function only after the fact. I see this as limiting the potential usefulness of these securities.

I prefer reverse convertibles that can be triggered at an earlier stage, when market participants may not agree that the system is in crisis. In fact, waiting for regulators to declare a crisis before debt could convert would be a mistake, since regulators may be too concerned that the announcement itself will worsen the crisis. Moreover, having the securities convert earlier and imposing the cost of dilution increases incentives for managers to avoid risky actions that might precipitate or encourage a market run or systemic event. And while earlier conversion may lead to cases in which this event occurs when the firm is healthy, this may not be such a big problem. The firm can simply buy back the equity, if the market turns out to have taken an excessively pessimistic view of the firm's prospects.

My second concern with structuring reverse convertibles with a double trigger is that anecdotal evidence from market participants suggests that doing so may limit the demand for these securities. Securities analysts and investors will need to consider not only the health of each bank, but also the health of the banking system as a whole, and the prospects for regulators to intervene. This conditioning on discretionary behavior by a regulator makes the security much harder to evaluate than a convertible security with a single trigger based on the firm's observable financial condition.

Finally, as a practical matter, I am not completely persuaded by the Lakers' view that convertible debt is not a hard enough claim to impose discipline on managers. All debt disciplines managers to varying degrees. I doubt that managers will shirk their responsibilities. After all, a forced recapitalization is not likely to be a happy event for the firm's managers or its shareholders.

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[4] See the article by Douglas Diamond and Raghuram Rajan, "Liquidity Risk, Liquidity Creation, and Financial Fragility: A Theory of Banking," *Journal of Political Economy*, 109:2 (April 2001), pp. 287-327.

Even if there is no second regulatory trigger, one needs to carefully consider the nature of the first trigger, which is based on the financial condition of the firm. The Lakers present a number of alternatives, without taking a final stand. It appears, however, that their preferred choice of the trigger is based on the book value of the firm's equity, in particular, Tier 1 capital over risk-adjusted assets.

For two reasons, I tend to prefer something more along the lines of Flannery's proposal to trigger conversion when the market value of a firm's equity falls below some specified value. First, book values tend to lag economic realities, yet as I just argued, there are benefits in having conversion occur at an early stage when the economic value of capital is still significantly positive, as this will keep the firm bounded away from insolvency. Second, relying on an equity price means that recapitalization becomes a market-driven event that does not depend on the regulators' evaluation of the firm's books. Book-value accounting is always a slippery matter; ultimately, a decision that the firm is undercapitalized on a book-value basis depends on regulatory accounting standards. Such a decision involves some discretion, since these standards are subject to change by the regulators. This can undermine the regulators' ability to commit to intervening when troubles arise at a financial firm.

There may also be potential problems with the use of market triggers. Theoretical research has shown that conversion schemes based on market prices of equity may yield multiple equilibria or no equilibrium, unless the trigger is designed very carefully.[5] In practical terms, this theoretical work suggests that a firm's stock price may behave in perverse and unpredictable ways as we near the trigger. In addition, we need to worry about incentives for investors — for example, short sellers of the firms' stock — who may seek to trigger conversion to profit from the discontinuous decline in the value of the firm's stock.

We can't ignore these concerns. But the regulators' ability to commit to their own form of prompt corrective action is also a major concern and is likely to have consequences for asset prices. I propose we give more thought to designing market-based schemes that address the theoretical objections. For example, Flannery has recently proposed that layered convertible instruments may help address the problem of discontinuous changes in equity values at the trigger point. If the convertible securities have different

[5] See Suresh Sunderesan and Zhenyu Wang, "Design of Contingent Capital with a Stock Price Trigger for Mandatory Conversion," Staff Report 448, Federal Reserve Bank of New York (May 2010), and Philip Bond, Itay Goldstein, and Edward Prescott, "Market-Based Corrective Actions," *Review of Financial Studies*, 23 (2010), pp. 781-820.

price triggers and, thus, convert at different points, equity capital could be gradually increased.

Resolution and Bankruptcy

Of course, there will be times when all the efforts at prompt corrective action do not succeed in preventing a failure. And if we are to deal effectively with the too-big-to-fail problem, we must have a credible mechanism to deal with such failures.

I strongly agree with the Lakers' two underlying principles for an expanded resolution authority: First, an insolvent financial institution should be dismantled and its parts sold off. Second, the resolution process should be as predictable as possible; regulatory authorities should not be able to use discretion to alter contractual claims in the resolution process. Notice, these principles sound a lot like a Chapter 7 bankruptcy.

While we agree on broad principles, the Lakers have not come to agreement about who should implement the resolution process. I believe a bankruptcy court with special procedures for financial institutions would be better equipped than a bank regulator to credibly dismantle large financial institutions without bailouts. I do not view an initial vetting by a panel of judges, as outlined in the Senate bill, as a substitute for a real bankruptcy court proceeding.

Many details need to be worked out. In particular, the precise role of regulators in the bankruptcy process is a matter that requires careful thought. In addition, international coordination among nations with different bankruptcy regimes is an obstacle. One possible solution is for global financial firms to declare a single jurisdiction under which bankruptcy would be administered, but even this solution will require coordination.[6] Contrary to some claims, however, we don't really require a full harmonization of bankruptcy regimes across nations. It is enough to seek agreement about the creation of a special regime for financial firms. International firms do go through bankruptcy now, so I don't see this as an insurmountable task.

One of the greatest attractions of a bankruptcy court is the systematic and predictable treatment of claims in bankruptcy — GM and Chrysler notwithstanding. We might still worry that the failure of a large financial firm can lead to panicky behavior by claimants that would simply overwhelm the bankruptcy process. However, I think prompt

[6] See Peter J. Wallison, "Debtor Selection: Resolving Insolvent, Globally Active Financial Firms," AEI Outlook Series (March 2010).

corrective action and market responses should help mitigate this problem. A number of suggestions by the Lakers are designed to enhance the predictability of the bankruptcy process and, in turn, the credibility of closing down financial firms without a bailout.

The Lakers make a sensible proposal to reduce systemic risks in broker-dealer markets. They propose placing higher capital requirements on brokerage accounts that permit collateral to be reused by the broker-dealer and lower capital requirements on accounts that fully segregate the customers' collateral. If a customer's collateral cannot be reused, the customer will have less incentive to run and grab his or her collateral at the first sign of financial troubles. The lower capital requirement could induce a substantial portion of the market to migrate toward these fully segregated accounts, thereby reducing systemic risks.

The Lakers also call for further study of the special treatment accorded to qualified financial contracts, which include repos and derivatives contracts. Under current law, these contracts are exempt from the automatic stay in a bankruptcy proceeding; that is, counterparties can take immediate possession of their collateral when a financial firm enters bankruptcy. Other claimants without this special treatment must wait until the court has worked out a plan.

Arguably, this special treatment actually increased systemic risks during the recent crisis. Sophisticated counterparties were encouraged to provide short-term repo funding, collateralized by securities that turned out to be very illiquid, such as various asset-backed securities. These creditors clearly perceived that they did not need to carefully monitor their borrowers' condition, in part, because they expected that they could seize collateral before other claimants. In turn, this created incentives for the borrowing firms to increase leverage, and increase their reliance on short-term funding, which increased fragility in the financial system.

I am increasingly persuaded by the arguments of bankruptcy scholars like Tom Jackson that we should limit the special treatment in bankruptcy to a much smaller group of contracts, such as those repos secured by highly liquid collateral (cash or Treasuries).[7] For short-term funding secured by collateral with more uncertain value, sophisticated counterparties should have the incentive to look more carefully at the borrower's risk of default. The consequence may be that short-term funding collateralized by securities

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[7] See Thomas H. Jackson, "Chapter 11F: A Proposal for the Use of Bankruptcy to Resolve Financial Institutions," Chapter 11 in *Ending Government Bailouts as We Know Them*, Kenneth E. Scott, George P. Shultz, and John B. Taylor, eds. (Stanford, CA: Hoover Institution Press, 2009).

other than cash or Treasuries might become more expensive and less pervasive. In turn, our financial system might become a little less fragile. Not such a bad outcome.

The Lakers' main proposal for lowering the costs of permitting financial firms to fail is the living will. In their proposal, all systemically important firms would be required to have a plan for their own bankruptcy as well as an estimate of how long this bankruptcy would take. Higher capital requirements would be assessed for firms whose bankruptcies would take longer.

It is difficult to argue with the idea of a living will. But, as the Lakers note, firms will not have a strong incentive to cooperate without pressure from regulators. Planning for bankruptcy is likely to be a highly adversarial process and very intrusive to bank managers.

A better use of regulatory resources might be to view the living will as one of the tools of prompt corrective action for firms that become undercapitalized but are still solvent. For example, we might use the conversion of a firm's convertible debt as the occasion for requiring firms to begin serious planning for their ultimate bankruptcy. Once a firm has been declared undercapitalized, the regulators' bargaining power to insist on a serious plan for bankruptcy will be greater. For these firms, I would argue that regulators should also consider a more aggressive approach to press systemically important organizations to simplify their internal structure. In this context, a joint exercise in which the regulator and the financial firm prepare for bankruptcy would certainly be a useful tool.

Conclusion

I have enjoyed this opportunity to think at some length about the work of the Squam Lake Group. And I look forward to more discussion about these issues in the coming months. While Congress is likely to pass a regulatory reform bill in the coming weeks, this is certainly not the end of the process of regulatory reform. Regulators will need to work out many details left open by the legislation. And taking the longer view, I don't think that Congress's approach is necessarily the final word on designing a resolution mechanism that will end the problem of firms that are too big to fail.