# Squam Lake Group

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# Aligning Incentives at Systemically Important Financial Institutions

UBS recently announced it would pay part of the bonuses of 6500 highly compensated employees with bonds that would be forfeited if the bank does not meet its capital requirements. Taxpayers should applaud this initiative. Other financial institutions should be rewarded for emulating it.

As the global financial crisis of 2007-2009 reminds us, the impairment of large interconnected intermediaries can have devastating effects on economic activity. This threat can induce governments to bail out distressed financial institutions. The direct costs to taxpayers of these bailouts are apparent. Beyond the direct costs, the prospect of bailouts removes much of the downside risk that the owners and employees of financial institutions should bear, distorting their financing and investment decisions, as well as increasing the likelihood and expected magnitude of future bailouts. The UBS "bonus bonds," which echo a recommendation we make in *The Squam Lake Report* (French et al, 2010), mitigate these distortions.

This memo underscores the strengths of the UBS innovation and refines our own recommendation for deferred compensation. We also revise our proposal for contingent convertible bonds, explaining how these hybrid bonds can be combined with better designs for deferred compensation to reduce the need for future bailouts. These proposals are specific to systemically important financial institutions, those whose failures or failure-avoiding bailouts impose significant costs on taxpayers.

### *The Problems to be Addressed*

The simplest model of a corporation's debt and equity implies that bondholders have a senior fixed claim on the firm's assets. They are paid in full if the value of the assets exceeds that claim. Stockholders own everything that is left after the bondholders have been paid. If the value of the assets falls short of the debt claim, the stockholders get nothing. In essence, shareholders receive the upside and bondholders suffer the downside of the firm's risky projects. This creates a significant conflict of interest between the two classes of claimants.

Stockholders want the firm to take more risk than bondholders would prefer. Consider a firm that is about to default on its debt. If the firm does default, bondholders get the firm's assets and stockholders get nothing. Like a losing hockey team that pulls its goalie in the last minute, the stockholders' best strategy is to go for broke, gambling the firm's assets on a high-risk long shot. If the gamble pays off, the stockholders receive everything left after the bondholders are paid. Since they are betting with the bondholders' money, the gamble is good for the stockholders and, unless it is made on extremely favorable terms, bad for the bondholders. If default is not likely, the incentive for shareholders to increase the firm's risk is weaker, but as long as there is some chance of default, stockholders always want more risk than bondholders. This conflict is costly for society when it distorts economic decisions, causing management, as the stockholders' agent, to take risky projects that cost more than they are worth and to reject safe projects that cost less than they are worth.

By providing a safety net for both stockholders and bondholders, government bailouts exacerbate the problem of excessive risk at financial institutions. Consider the extreme case in which taxpayers always bail out distressed firms. Then stockholders worry only about how new investments affect positive firm outcomes, leaving taxpayers to worry about the downside. Bondholders are sure to get their money back, so they have no reason to resist stockholders' desire for more risk. Indeed, with no risk of loss, bondholders are willing to finance the stockholders' risky investments at a low yield, so banks find it even more profitable to use high leverage. In short, the promise of bailouts pushes financial firms to take even more risk than they would with no prospect of a bailout, further increasing the likelihood and potential costs of future bailouts.

Real life is more complicated than this simple model suggests. Managers have career concerns that can discourage them from increasing the risk of their firm's failure. Regulations limit risk-taking and give considerable discretion to regulators to force banks to reduce their risk. Bond covenants often limit the risks firms can take. Government bailouts are not certain, even for the largest financial firms. Despite these complications, the possibility of privatized gains and socialized losses causes shareholders to favor more risk. The large equity claims of many senior managers, designed to align their interests with those of shareholders, push them toward the risk profile preferred by shareholders. Thus, even when we recognize the key real-world complications, the stockholders and managers of systemically important financial firms generally lean toward socially excessive risk.

The possibility of government bailouts magnifies another manifestation of the conflict between bondholders and stockholders, which economists call "debt overhang." A distressed firm can sometimes avoid default by selling equity and using the proceeds to pay its creditors. But this is rarely in the interest of existing stockholders. Bondholders would love to see the firm sell equity when it is in distress because the capital raised would shore up the firm's ability to make the payments promised to them. Since the new shareholders would not be willing to pay more than their shares are worth, the bondholders' gains would have to come from the old shareholders. The old shareholders would give up part of their ownership to the new shareholders and receive little or nothing in return. As a result, they would therefore be opposed to issuing new equity in this situation.

Potential bailouts reinforce the debt overhang problem for financial firms. If a distressed financial firm recapitalizes itself by issuing equity, it lets taxpayers off the hook. The new capital strengthens the firm, reducing the expected transfer from taxpayers and increasing the expected payments to bondholders. The old shareholders lose because their claims are again diluted with little or no compensation. Thus, it is not surprising that shareholders are reluctant to recapitalize weak financial firms.

In short, the prospect of government support creates a conflict between taxpayers and stockholders that mimics the conflict between bondholders and stockholders. This conflict pushes financial firms to make excessively risky investments, to finance those investments with excessive leverage, and to avoid recapitalizing when distressed. Such behavior increases the likelihood and severity of future financial crises – and the expected cost of future bailouts, leading to a vicious circle that can only be escaped with proper regulation, to which we now turn.

***A Proposal***

Some observers argue that corporate governance failures played a significant role in the last crisis and call for better alignment of the interests of management and stockholders. Changes that push management to act more in the interests of shareholders are generally good for society. Such changes, however, are not likely to lead financial institutions to take less risk and to reduce the societal costs of potential bailouts. Problems caused by the conflict between stockholders and taxpayers are not mitigated by reducing the conflict between stockholders and management. In fact, when considering the survival of the firm, we want management to think more like bondholders – particularly during periods of duress. By directly linking compensation to the firm's survival, the UBS bonus bonds have exactly this effect.

A recent proposal by the European Union (EU) to limit the size of bank bonuses to the level of base salary does not directly attack the problem of excessive risk taking. It is not even clear that this limit on bonuses would do much to dampen managers' incentive to take risk. For example, next year's salary can be adjusted easily to reflect this year's performance or restricted stock can be granted in lieu of bonuses. To the extent that firms evading the regulation give management more equity-linked compensation, the proposed rule could potentially exacerbate the conflict between taxpayers and shareholders, leading to counter-productive unintended consequences for taxpayers. The proposed rule could also make financial institutions riskier by making their compensation expenses less flexible.

In *The Squam Lake Report* (French et al, 2010), we advocate a compensation scheme much like the bonus bonds recently developed by UBS. There we suggest that financial institutions should be forced to withhold a significant share – perhaps one fifth – of each senior manager's total annual compensation for a significant period – perhaps five years. The deferred compensation would be a fixed "dollar" amount. In our original recommendation, this compensation would be forfeited if the firm fails or needs government assistance during the holdback period. The holdback is intended to move the incentives of employees who can have a meaningful impact on the survival of the firm closer to those of taxpayers. Because payment is forfeited if the firm stumbles, and does not increase when the firm does well, management would be less inclined to take excessive risk or leverage, and more inclined to recapitalize a distressed firm. Of course, holdbacks only reduce management's incentives to take excessive risk if management cannot hedge its deferred compensation. Any hedging of deferred compensation should therefore be prohibited.

Most systemically important financial institutions are complex multi-national firms. This complexity creates extreme challenges for regulators dealing with the failure of even one of these firms. New procedures are now being developed to improve the ability to safely resolve the failure of systemically important firms. These new methods include special improvements to the bankruptcy code as well as an administrative process, known as "single point of entry," which is driven by regulators. These new procedures are designed to rapidly and safely restructure the liabilities of the failing financial firm.[1] Many critical cross-border differences in legal codes are not yet harmonized, however, and in some countries the ability of the authorities to provide any assistance to facilitate a takeover has actually been reduced. There is still a significant risk of "ring fencing," by which one sovereign protects national interests even at the expense of a less efficient global failure-resolution process. Currently, a failure like Lehman's would most likely still disrupt the financial system and the entire economy.

The cost of such a failure raises concerns about our original proposal for holdbacks. We argued in French et al (2010) that managers should forfeit their holdbacks if the firm declares bankruptcy or receives a government bailout. It would be better, however, if the threat of forfeiture pushes management to recapitalize the firm before society is forced to bear all the costs of bankruptcy or government intervention. Thus, we now suggest instead that the threshold for forfeiture of compensation holdbacks should be crossed well before either event is imminent.

We can further reduce taxpayer bailout risk by combining the compensation holdback requirement with a refined version of another recommendation that we make in French et al (2010). There we argued that regulators should encourage financial firms to issue contingent convertible securities (often called "CoCos"). These hybrid bonds would automatically convert to equity – and reduce the firm's leverage – under specific conditions of distress. Upon conversion, these securities would increase loss absorbing capacity so that, if an impaired firm has failed to raise new equity, there would still be a buffer protecting taxpayers from the firm's mistakes.

Our original proposal suggested a dual trigger for the hybrid securities, linked to the health of the specific institution and to a regulatory declaration by the finance minister or relevant regulator that industry-wide capital is impaired. Subsequent conversations convince us that the discretion

[1] The single-point-entry model is described in "Resolving Globally Active, Systemically Important, Financial Institutions," A joint paper by the Federal Deposit Insurance Corporation and the Bank of England, December 10, 2012. A proposed new chapter of the bankruptcy code designed to treat systemically important financial institutions is provided in Bankruptcy Not Bailout: A Special Chapter 14, edited by Kenneth E. Scott and John B. Taylor, Hoover Press, 2012. Under current U.K. law and existing derivatives contracting practice, even a single-point-of-entry model failure resolution process would trigger the early termination of the London-based over-the-counter derivatives of a large U.S. bank holding company, a potentially important destabilizing event.

associated with such a regulatory declaration makes our dual-trigger design ineffective. In particular, without a clear method for determining the likelihood and timing of the regulatory trigger, there would probably be little demand for these securities at a yield issuers would find attractive.

What is the best trigger for the conversion of bonds? This involves complex tradeoffs, but we can again look to Switzerland for suggestions. Capital requirements for Swiss banks were raised substantially on March 1, 2012. Under the new regime, contingent convertible bonds may satisfy part of these requirements if the trigger for conversion is tied to a bank's regulatory capital ratio. "High-trigger" bonds, which convert when a bank's capital ratio falls below 7% of risk-weighted assets, can be used to satisfy up to 3% of its capital requirements. Swiss banks can also use "low-trigger" bonds, which mandate conversion when the capital ratio falls below 5%, to satisfy another 6% of their requirements. Credit Suisse has issued high-trigger CoCos, while UBS has issued low-trigger CoCos. Issuers of future contingent convertible bonds will take advantage of improved investor familiarity.

Firms could create synergies between compensation holdbacks and contingent debt by also tying forfeiture of the holdbacks to a bank's capital ratio. The market value of contingent debt depends on investors' beliefs about management's willingness to issue new equity in a crisis. Bond investors will pay more for contingent debt if they expect managers to recapitalize a distressed firm before it crosses the threshold for conversion of debt to equity. This suggests that the triggers for the forfeiture of deferred compensation and the conversion of contingent debt should be linked, with holdback forfeiture occurring before conversion.

The UBS bonus bonds are structured in exactly this way. Management forfeits its deferred compensation if the bank's regulatory capital ratio falls below 7.5% and its contingent debt converts to equity if the capital ratio falls below 5%.

Holdbacks of senior-management compensation improve economic welfare by reducing both the likelihood and expected costs of future bailouts, as well as the distortions caused by the prospect of future bailouts. We would be surprised, however, if many banks voluntarily defer compensation in this fashion because doing so would force the banks' shareholders and managers to bear a larger share of the costs of their actions. We therefore recommend that banks be required to defer a substantial portion of each senior manager's compensation for a significant period.

*Recommendation: Systemically important financial institutions should be required to hold back a substantial share – perhaps 20% – of the compensation of employees who can have a meaningful impact on the survival of the firm. This holdback should be forfeited if the firm's capital ratio falls below a specified threshold. The deferral period – perhaps 5 years – should be long enough to allow much of the uncertainty about managers' activities to be resolved before the bonds mature. Except for forfeiture, the payoff on the bonds should not depend on the firm's* *performance, nor should managers be permitted to hedge the risk of forfeiture. The threshold for forfeiture should be crossed well before a firm violates its regulatory capital requirements and well before its contingent convertible securities convert to equity.*