

SYSTEMIC RISK AFTER DODD-FRANK: CONTINGENT CAPITAL AND THE NEED FOR REGULATORY STRATEGIES BEYOND OVERSIGHT

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Because the quickest, simplest way for a financial institution to increase its profitability is to increase its leverage, an enduring tension will exist between regulators and systemically significant financial institutions over the issues of risk and leverage. Many have suggested that the 2008 financial crisis erupted because flawed systems of executive compensation induced financial institutions to increase leverage and accept undue risk. But that begs the question why such compensation formulas were adopted. Growing evidence suggests that shareholders favored these formulas to induce managers to accept higher risk and leverage. Shareholder pressure, then, is a factor that could cause the failure of a systemically significant financial institution.

What then can be done to prevent future such failures? The Dodd-Frank Act invests heavily in preventive control and regulatory oversight, but this Article argues that the political economy of financial regulation ensures that there will be an eventual relaxation of regulatory oversight (the regulatory sine curve). Moreover, the Dodd-Frank Act significantly reduces the ability of financial regulators to effect a bailout of a distressed financial institution and largely compels them to subject such an institution to a forced receivership and liquidation under the auspices of the Federal Deposit Insurance Corporation. But the political will to impose such a liquidation remains in doubt, both in the United States and in Europe.

If bailouts are to be ended, something must replace them, beyond relying on the wisdom of regulators. Because financial institutions are inherently fragile and liquidity crises predictable, this Article proposes a “bail-in” alternative: namely, a system of “contingent capital” under which, at predefined points, a significant percentage of a major financial institution’s debt securities would convert into an equity security. However, unlike earlier proposals for contingent capital, the conversion would be on a gradual, incremental basis, and the debt would convert to a senior, nonconvertible preferred stock with cumulative dividends and voting rights. The intent of this design is (1) to dilute the equity in a manner that deters excessive risk taking, (2) to create a class of voting preferred shareholders who would be rationally risk averse and would resist common shareholder pressure for increased leverage and risk taking, and (3) to avoid an “all or nothing” transition, which may evoke political resistance and bureaucratic indecision, by instead structuring a more incremental change.

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More generally, in the belief that reliance on enhanced agency oversight will likely produce an ad hoc and politically contingent system of regulation (and thus significant disparities in treatment), this Article recommends, as a supplementary strategy, the use of objective market-based benchmarks that are embedded in the financial institution's corporate governance. It argues that such controls are less subject to political exigencies and more able to provide the economic shock absorber and loss absorbency that an effective response to systemic risk requires.

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INTRODUCTION

Globally, financial regulators are confronting the problem of systemic risk—namely, the risk that a localized economic shock can have worldwide repercussions because of the interconnections between financial institutions.¹ In 2008, the United States essentially witnessed a localized economic shock in its subprime mortgage market, which nearly caused the meltdown of worldwide capital markets as that shock was transmitted through counterparties and global markets with the speed of a tsunami. Nonetheless, a coherent strategy for dealing with systemic risk remains lacking.

The responses of financial regulators have been diverse, but generally insufficient. In the United States, reacting to public anger at bailouts, the Dodd-Frank Act denies regulators the ability to use public funds to rescue a systemically significant financial institution and invests heavily in preventive regulation and supervision to prevent a future crisis.² New institutions are created to monitor for future shocks and to direct financial firms to reduce their exposure to systemic crises.³ This is commendable, but there is a problem with this approach to crisis prevention: Economic shocks are rarely predictable.⁴ Moreover, they arrive with a suddenness that often outpaces the capacity of bureaucracies to respond effectively. Hence, reforms are needed that do not depend upon the oversight capa-

1. For a fuller definition of systemic risk, see Steven L. Schwarcz, *Systemic Risk*, 97 *Geo. L.J.* 193, 204 (2008). The problem is not simply that financial institutions are interconnected (principally through the over-the-counter derivatives market), but equally that the risks they face are positively correlated. Uncorrelated risk can be managed through diversification, but if the risks financial institutions face are correlated, the failure of one is a strong signal that others are also in trouble. For example, if one financial institution encounters a liquidity problem and must sell illiquid assets (such as interests in asset-backed securitizations) into a thin market, this can depress asset prices and force other banks to write down similar assets on their balance sheets. Thus, the market rationally responds to the failure of one institution by discounting the stock prices of the others and ultimately cuts off short-term credit to the entire sector. That was the experience in 2008 following the bankruptcy of Lehman Brothers Holdings, Inc.

2. The full title of this statute is the Dodd-Frank Wall Street Reform and Consumer Protection (Dodd-Frank) Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010). For a fuller discussion of this statute, see *infra* notes 82–84, 132–137, and accompanying text.

3. For example, section 111 of the Dodd-Frank Act creates the Financial Stability Oversight Council (FSOC), which is authorized by sections 112 through 115 to oversee systemic risk. Dodd-Frank Act §§ 111–115 (to be codified at 12 U.S.C. §§ 5321–5325). Section 165 then authorizes the Federal Reserve, either on its own or based on recommendations from the FSOC, to establish various “prudential standards,” including for “contingent capital,” and to specify a minimum required level of contingent capital for systemically significant financial institutions. *Id.* § 165 (to be codified at 12 U.S.C. § 5365).

4. For similar observations, see Iman Anabtawi & Steven L. Schwarcz, *Regulating Systemic Risk: Towards an Analytical Framework*, 86 *Notre Dame L. Rev.* (forthcoming 2011) (manuscript at 3), at <http://ssrn.com/abstract=1670017> (on file with the *Columbia Law Review*) (“Because economic shocks are generally unpredictable, however, the [financial regulatory reform] measures enacted are unlikely to be effective against future crises.”); Schwarcz, *supra* note 1, at 216 (“Any regulation aimed at preventing panics that trigger systemic risk, however, could fail to anticipate all the causes of these panics.”).

bilities of regulators. Evaluating the most promising alternative strategies will be the focus of this Article.

Just as generals are prone to plan for the next war by reacting to the mistakes made in the last war, so do financial regulators, in planning for future crises, focus (possibly obsessively) on the immediate causes of the last financial contagion. Unsurprisingly, the Dodd-Frank Act displays a special concern with executive compensation and authorizes the Federal Reserve to limit excessive compensation at significant financial institutions.⁵ In addition, mindful of the slow and extraordinarily costly bankruptcy reorganization of Lehman,⁶ the Dodd-Frank Act elaborately designs a new and hopefully expeditious liquidation procedure for a failing financial institution in order to avoid the delay and uncertainty incident to a bankruptcy reorganization. Specifically, the Dodd-Frank Act confers “resolution authority” on the Federal Deposit Insurance Corporation (FDIC) to impose a receivership on a failing financial institution in order to achieve an “orderly liquidation” without the investment of public funds.⁷ These twin concerns—restricting executive compensation and liquidating a failing financial firm quickly without a taxpayer-financed bailout—reflect two key judgments that dominated the legislative process leading up to the Dodd-Frank’s enactment. These are:

(1) that the 2008 financial crisis was in substantial part the consequence of flawed executive compensation formulas that gave senior financial managers at major financial institutions perverse incentives to pursue short-term profits by accepting risk and high leverage⁸; and

(2) that the market’s perception that some financial institutions were “too big to fail” enabled these firms to obtain capital at a discounted price commensurate with the market’s judgment that they would be bailed out.

5. Section 956 of the Dodd-Frank Act authorizes federal banking and securities regulators to adopt rules restricting the ability of executive officers, employees, or directors of “covered financial institutions” to receive “excessive compensation, fees, or benefits” or compensation that “could lead to material financial loss to the covered financial institution.” The term “covered financial” includes most financial institutions (banks, investment banks, credit unions, broker-dealers, etc.) that have assets in excess of \$1 billion. Dodd-Frank Act § 956 (to be codified at 12 U.S.C. § 5641).

6. The administrative costs (mainly advisory and legal fees) of the still continuing bankruptcy reorganization of Lehman Brothers had already climbed to \$982 million as of September 2010. Liz Moyer, *Lehman’s Bankruptcy: Tab Is Close to \$1 Billion*, *Wall St. J.*, Oct. 19, 2010, at C2. This reorganization is probably still at an early stage.

7. Under the Dodd-Frank Act, Congress authorized the FDIC to impose a receivership on a failing financial firm that will result in the firm’s “orderly liquidation.” The goal of this legislation is that any losses resulting from liquidation will be imposed on unsecured creditors and shareholders, not the taxpaying public. See Dodd-Frank Act tit. II, §§ 201–217 (to be codified at 12 U.S.C. §§ 5381–5394) (“Orderly Liquidation Authority”).

8. For a representative statement (by a major economist), see Alan S. Blinder, *Crazy Compensation and the Crisis*, *Wall St. J.*, May 28, 2009, at A15 (describing executive compensation formulas as one of the “most fundamental causes” of the crisis). For the more general argument that executive compensation formulas gave rise to a moral hazard problem, see generally Lucian A. Bebchuk & Holger Spamann, *Regulating Bankers’ Pay*, 98 *Geo. L.J.* 247 (2010).

This discount in turn encouraged these firms to take on excessive leverage.⁹

Neither of these premises is wrong, but the Dodd-Frank Act's response to them may misperceive the problem for two basic reasons.

First, executive compensation formulas may well have incentivized managers to accept excessive risk, but this shift toward greater risk occurred not because managers overreached shareholders, but rather because some shareholders used executive compensation as a means of inducing managers to accept higher levels of risk and leverage that they would otherwise have resisted. Flawed executive compensation was more an effect than a cause, with shareholders being more instigators than victims. Because shareholders are generally diversified, they have far greater willingness to tolerate risk (and to pressure for increased leverage) than do undiversified managers. From a policy perspective, then, countervailing pressure must be structured into the corporate governance of systemically significant financial institutions to curb this incentive.

Over the short run, the quickest way for a financial institution to increase its profitability is to increase its leverage. Because many institutional shareholders must compete for investors' funds, they may pursue wealth maximization strategies more aggressively than other shareholders (and hence may tolerate more externality-creating behavior, including higher leverage). A key implication here is that the level of risk that is privately optimal for the shareholders of a financial institution may not be socially optimal. Accordingly, shareholder pressure that heightens systemic risk should be seen less as a private problem of governance and more as a public problem of externalities.

Second, although the Dodd-Frank Act properly recognizes that the "too big to fail" phenomenon generates a "moral hazard" problem, one cannot respond to that problem in the manner of King Canute and simply order that there be no more failures. Nor can one realistically expect that all future failures will be carefully managed under governmental supervision (as Dodd-Frank's "resolution authority" provisions seem to assume). Rather, public policy must recognize the plausibility of the "falling dominoes" scenario under which the first financial firm to fail sets off

9. The following summary reflects the consensus view of the "too big to fail" phenomenon:

Explicit or implicit government guarantees immunize the banks' creditors against the consequences of a default by the bank. As a result, the default risk premium in the interest rates demanded by the banks' creditors is lower and may even be zero. Institutions that benefit from such guarantees, e.g., institutions that are deemed to be "too big to fail," are therefore able to borrow at lower interest rates. The savings in capital costs that are thereby achieved are . . . larger the more leverage the bank has.

Anat R. Admati et al., *Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity Is Not Expensive* 19 (Rock Ctr. for Corporate Governance at Stanford Univ., Working Paper No. 86, 2010), available at <http://ssrn.com/abstract=1669704> (on file with the *Columbia Law Review*).

a cascade of successive failures. In response, it must seek to counteract the pressures that lead financial firms to take on high risk and leverage. Here, many economists believe that the market's perception that some financial institutions were "too big to fail" (and would therefore be bailed out with public funds) resulted in an unintended subsidy for these institutions because their creditors charged them less for capital than their true risk level justified.¹⁰ As a result, because capital was cheap to them, these firms (and their shareholders) were incentivized to take on excessive leverage.

In the Dodd-Frank Act, Congress responded to this implicit subsidy by insisting that future public bailouts by the Federal Reserve or the FDIC were forbidden. To this end, regulators were stripped of their former authority to advance funds to major financial institutions facing a liquidity crisis.¹¹ Yet it is still not clear that the market really believes that any future administration could truly tolerate a major bank failure, and many suspect that some means would be found to evade statutory obstacles in a major crisis. Nor can it be assumed that a future administration would have the political fortitude to liquidate a failing financial institution if to do so would suggest a failure of oversight on its part. Even among experienced practitioners, uncertainty surrounds what would actually happen the next time a major liquidity crisis erupts and a significant financial institution nears insolvency.¹² As a result, the market may still consider some banks protected, and hence, the "too big to fail" subsidy would not have been effectively ended.

An alternative regulatory approach, favored by many and consistent with modern law and economics scholarship, would respond to this problem of the "too big to fail" subsidy by taxing the beneficiaries of this subsidy (i.e., the major banks).¹³ In principle, such a "bank tax" would offset the implicit subsidy and thus reduce the incentive to take on excessive leverage, while also funding a private insurance system to bail out the failing bank.¹⁴ Presumably with these objectives in mind, the

10. See, e.g., *id.*

11. See *infra* notes 82–84 and accompanying text.

12. This author has had this conversation with a number of banking and securities law practitioners, and most believe the Federal Reserve both could and would find ways to skirt statutory obstacles in a major crisis. Some of them emphasize that few would have standing to challenge unauthorized lending by the Federal Reserve. On the other side of this debate, it can be argued that the Federal Reserve has received intense criticism and "second guessing" from Congress since 2008 and has to fear that any evasion of Congress's restrictions on its lending authority could lead to loss of its autonomy. Hence, it is highly speculative as to whether and how far the Federal Reserve would dare to bend the law.

13. Put simply, law and economics scholars favor a policy of responding to externalities by taxing them. See Heinz Köhler, *Microeconomics* 511 (1992); see also E.K. Hunt, *History of Economic Thought: A Critical Perspective* 390–95 (2d ed. 2002) (criticizing this solution). In principle, this tax should force the firm to internalize the costs that it is imposing on society.

14. For an in depth examination of such a proposal (and a critique of the Dodd-Frank Act), see generally Jeffrey N. Gordon & Christopher Muller, *Confronting Financial Crisis*:

International Monetary Fund has consistently advocated a bank tax that would “pre-fund” a private global emergency fund that could bail out a threatened systemically significant financial institution.¹⁵ In effect, three birds are killed with one stone by such a strategy, as such a private, industry-funded bailout fund would (1) prevent the first domino from falling and thus avert a financial contagion, (2) reduce the current incentives for financial institutions to use excessive leverage, and (3) rely upon a private insurance system, rather than a taxpayer-funded bailout.

Still, desirable as such a policy sounds, it may be too good to be true. First, it may be infeasible because the private bailout fund concept has proven to be politically toxic.¹⁶ Late in the drafting of Dodd-Frank, the Conference Committee struck proposals for any such private bailout fund from the final legislation.¹⁷ To an angry public, any suggestion of further bailouts of failed financial institutions has been unacceptable. Second, and even more critical, it is doubtful that such a private insurance fund would be large enough to deal with a true systemic crisis. Properly understood, systemic risk involves not just the risk that the failure of one institution could set off a cascade of failures because of interconnections, but also the likelihood that the risks faced by financial institutions are closely correlated.¹⁸ Given high correlation, the failure of one institution implies that all institutions facing correlated risks will face a similar crisis. Insurance cannot solve such an industry-wide problem because no indus-

Dodd-Frank’s Dangers and the Case for a Systemic Emergency Insurance Fund, 28 *Yale J. on Reg.* (forthcoming Winter 2011) (on file with the *Columbia Law Review*). Of course, the idea of such a private insurance fund funded by the relevant industry is not new and provided the rationale for both the FDIC and the Securities Insurance Protection Corporation, which protect depositors and investors from the failure of banks and brokers, respectively.

15. The International Monetary Fund has proposed a levy on banks—known as a “financial stability contribution”—to generate a self insurance fund equivalent to 4–5% of each country’s GDP; this fund would total around \$1–2 trillion. See Linda Yueh, *IMF Gets Tough on Banks with ‘FAT’ Levy*, *Guardian* (London), Apr. 21, 2010, at <http://www.guardian.co.uk/commentisfree/2010/apr/21/imf-levy-bank-fat-tax> (on file with the *Columbia Law Review*).

16. The idea of such a bank tax is controversial not only in the United States, but in Europe as well. See Alistair Dawber, *EU Finance Ministers Fail to Agree Deal on Bank Tax; UK and EU Finance Chiefs at Loggerheads over How to Use the Proceeds of a Levy*, *The Independent* (London), Apr. 19, 2010, at 38 (reporting disagreements at meeting of EU Finance Ministers).

17. See Gordon & Muller, *supra* note 14 (manuscript at 41) (discussing House bill’s “Systemic Dissolution Fund” of \$150 billion and Senate bill’s “Orderly Liquidation Fund,” both of which were to be “pre-funded” through risk-based assessments of major financial institutions and both of which were deleted at the Conference Committee stage).

18. See *supra* note 1. Thus, although it is commonly said that major financial institutions are “too big to fail,” it is more accurate to say that they are “too correlated to fail.”

try-funded insurance fund could ever be sufficient to insure against much of the industry's failure.¹⁹

Critics of such a fund further argue that the very existence of a private bailout fund might encourage "complacency" on the part of the insured banks, with the result that investors might again favor excessive leverage.²⁰ If that were the case, the same moral hazard problem would surface in a new form, and externalities would again result. Finally, a private bailout fund does not adequately respond to the problem of shareholder pressure and may even aggravate it.²¹ For these reasons, a private bailout fund may be part of the answer, but it cannot be the entire answer.

Constrained by political realities and public anger, the Dodd-Frank Act's basic approach to the problem of systemic risk was to curtail public lending authority and instead mandate active regulatory monitoring and oversight. Although greater regulatory oversight is certainly desirable, this Article will argue that exclusive reliance upon it is unrealistic. Because of a variety of factors—the inherent fragility of financial institutions, the interconnections among them, the closely correlated risks that they face, and the political economy of financial regulation—it is, unfortunately, predictable that serious problems capable of generating a systemic crisis will not be detected in advance or will elicit only an inade-

19. This is definitional. Insurance systems work based on an assumed (often actuarially calculated) level of risk. If some significant percentage of the industry will need protection, the size of such a fund begins to approach a significant percentage of the assets of the industry. Put more simply, a private bailout fund might be able to deal with a Lehman-sized failure, but not a failure by both Citigroup and Bank of America. But that could happen if the risks they faced were highly correlated.

20. See Yueh, *supra* note 15 (noting a key objection to bank tax was that it would encourage complacency on the part of insured banks). This complacency could result in part from the belief that, if the private fund were inadequate, it would need to be supplemented by public funds. Even if public funds were not made available and bankruptcies resulted, then costs would again be visited on society. Others see a greater problem: that such a bank levy "would reinforce the link between banks and governments" and would continue to convince creditors that large banks would not be permitted to fail. Robert Cyran et al., *The Time Is Right for Breaking Up*, *N.Y. Times*, Jan. 13, 2011, at B2.

21. Even in the case of ordinary industrial corporations, activist shareholders regularly pressure for increased leverage. The best recent example may be William Ackman and Pershing Square Capital Management's 2009 proxy fight for Target Corporation. Ackman and his hedge fund sought to induce Target to sell its real estate assets and employ a sale leaseback strategy that would have increased the firm's leverage. Zachary Kouwe, *A Fund Manager Wins, and Moves On*, *N.Y. Times*, Apr. 17, 2009, at B4. Although his proxy fight failed (possibly because early 2009 was the low point of the recent recession), the contest was representative of recent activist campaigns. The relevant point here is that because these nonfinancial companies that Mr. Ackman has repeatedly targeted are not "too big to fail" and do not receive an interest rate subsidy based on investor expectations of a bailout, eliminating the "too big to fail" subsidy will not alone eliminate shareholder pressure for increased leverage. That pressure may come in part from the fact that diversified shareholders are willing to tolerate more risk than undiversified managers. Given the existence of a private insurance fund, shareholders may find it even easier to pressure managers because the prospect of firm failure is reduced.

quate response. If ex ante preventive regulation is likely to fail (at least eventually), and if banking regulators are stripped of their authority to advance funds to troubled financial firms ex post (as the Dodd-Frank Act has largely done),²² the result could be a financial catastrophe worse than the 2008 crisis.

What, then, can be done to avert a future systemic crisis? Although every commentator today has a pet theory of what caused the 2008 crisis and a proposed reform, this Article will argue that, whatever the causes of that crisis, the principal public policy objective must be to make the financial system more resilient to localized economic shocks so that a crisis at one financial firm cannot generate a cascading series of failures. To create such a buffer that prevents the failure of one significant firm from carrying its interconnected or risk-correlated peers down with it, this Article proposes that we build loss absorbency into the capital structure of systemically significant financial institutions. The simplest means to that end is through a corporate finance innovation—known as “contingent capital”—that has both strong advocates and skeptical critics. Among the former are the Swiss Government,²³ the Association for Financial Markets in Europe (AFME),²⁴ Canada’s principal bank regula-

22. See *infra* notes 82–84 and accompanying text.

23. Switzerland has a unique version of the “too big to fail” problem; almost uniquely, it has financial institutions that are “too big to be saved.” Collectively, UBS and Credit Suisse dwarf the Swiss economy and could not be bailed out with public funds. Elena Logutenkova & Klaus Wille, UBS, Credit Suisse May Need to Boost Capital to 19%, *Bloomberg*, Oct. 4, 2010, at <http://www.bloomberg.com/news/2010-10-04/ubs-credit-suisse-must-boost-capital-to-meet-swiss-regulator-requirements.html> (on file with the *Columbia Law Review*) (“The two banks’ total assets of 2.6 trillion Swiss francs (\$2.64 trillion) are more than four times the size of the Swiss economy.”). As a result, the Swiss have prudently adopted higher capital requirements that are well in excess of Basel III’s new enhanced standards. In addition to a high core capital requirement equal to 7% of risk-adjusted assets, Swiss banks will be required to maintain an additional and larger layer of contingent capital. First Mover: Regulating Swiss Banks, *Economist*, Oct. 9, 2010, at 107 [hereinafter *First Mover*]; High Hopes for CoCos, But the Debate Rages On, *Euroweek*, Nov. 12, 2010 [hereinafter *EuroWeek*, *High Hopes*], available at 2010 WLNR 23710197 (on file with the *Columbia Law Review*); see also *infra* notes 91, 138, and accompanying text (describing Swiss regulations).

24. See Mark Austen, Too Big to Be Bailed Out: There Is a Way to Rescue Banking Giants and the Economy Without Making the Taxpayer Cough Up, *The Guardian* (London), Aug. 17, 2010, at 26 (statement by Acting Chief Executive of AFME endorsing contingent capital requirement for banks).

tors,²⁵ the Squam Lake Working Group,²⁶ the Financial Stability Board (FSB), and, probably, the Basel Committee on Banking Supervision.²⁷ On the other side of the debate, some academic critics contend that contingent capital is an overly complex substitute for simply requiring the infusion of more equity capital into systemically significant financial institutions.²⁸

This debate will and must continue, in part because the potential scale of near-term issuances of contingent capital is ballooning exponentially. Standard and Poor's (S&P), the rating agency, has recently estimated that worldwide issuances by banks of contingent capital might have

25. Canada's Office of the Superintendent of Financial Institutions (OSFI) has announced a policy of requiring all subordinated debt issued by financial institutions under its jurisdiction to contain a conversion provision under which the debt will convert into equity under specified circumstances of financial distress. Blair W. Keefe, *Canada Pushes Embedded Contingent Capital*, 29 *Nat'l Banking L. Rev.* 57, 57–58 (2010). The Bank of Canada (Canada's central bank) has reacted favorably to this plan. See *Banks Should Shoulder Future Losses, Carney Says*; *Bank of Canada Backs Changes To Avert Bailouts*, *Toronto Star*, Nov. 10, 2010, at B3 (reporting statements by Governor of Bank of Canada).

26. Kenneth R. French et al., *The Squam Lake Report: Fixing the Financial System* 66–74 (2010). The Squam Lake Working Group includes a collection of prominent financial economists from major universities and elsewhere.

27. See *Fin. Stability Board, Reducing the Moral Hazard Posed by Systemically Important Financial Institutions: FSB Recommendations and Time Lines 3* (2011), available at http://www.financialstabilityboard.org/publications/r_101111a.pdf (on file with the *Columbia Law Review*) (listing "a quantitative requirement for contingent capital instruments" among recommended measures to improve stability of systemically important financial institutions); *Press Release, Basel Comm. on Banking Supervision, Group of Governors and Heads of Supervision Announce Higher Global Minimum Capital Standards 2* (Sept. 12, 2010), available at <http://www.bis.org/press/p100912.pdf> (on file with the *Columbia Law Review*) ("The Basel Committee and the FSB are developing a well integrated approach to systemically important financial institutions which could include combinations of capital surcharges, contingent capital and bail-in debt."); see also Damian Paletta, *Idea to Prevent Next Banking Bust?*, *Wall St. J.*, Sept. 27, 2010, at A2 (reporting support of Goldman Sachs CEO Lloyd Blankfein).

28. For the view that contingent capital (as presently designed) serves mainly to preserve tax-advantaged financing and is an inferior policy to requiring greater equity capital, see Admati et al., *supra* note 9, at 45–49. These authors further contend that the financial industry is attracted to proposals for contingent capital because they view it as a way of preserving the tax advantages of debt financing (whereas the use of equity capital is viewed by the industry as too expensive). *Id.* at 47–48. Their position relies heavily on the famous theorem of Franco Modigliani and Merton Miller that a firm's value is independent of its capital structure. See Franco Modigliani & Merton H. Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment*, 48 *Am. Econ. Rev.* 261, 288–93 (1958). Although the M&M view posits the irrelevance of capital structure and the choice between debt and equity, proponents of greater use of equity in banks' capital structure argue only a corollary of the M&M theorem: namely, that equity is not more expensive than debt. The M&M theorem rests on very stylized facts and assumptions and ignores the impact of taxation (which favors the use of debt securities). Another problem with this academic preference for the greater use of equity is that such a requirement might induce banks to restrict lending in order to redeem and retire debt, thereby reducing liquidity and chilling growth. See *infra* note 31 and accompanying text.

to exceed \$1 trillion over the next five to ten years simply to comply with new, stricter rules for bank capital.²⁹ That is a staggering estimate, but it also highlights the extraordinary fact that there is still little agreement on the design or purposes of this new security. To most, the term “contingent capital” means a convertible debt security that systemically significant financial institutions would issue and that would automatically convert into equity at one or more predefined trigger points when the particular financial institution experienced financial stress. By definition, such a conversion averts default, bankruptcy, and interconnected financial failures—advantages that have also motivated legislative interest in contingent capital.³⁰

But this description only sketches a cursory outline of the security and ignores important choices in its design. What else should the design of contingent capital include? As this Article argues, contingent capital can also be structured (1) to curb shareholder pressure for risk and leverage, (2) to create a new voting constituency to counterbalance equity shareholders, (3) to supplement subjective regulatory assessments of financial institutions’ soundness with a more objective and market-based

29. See Banks May Need to Raise USD1 Trillion, *Bus. World*, Dec. 9, 2010, at <http://www.businessworld.ie/livenews.htm?a=2702185;s=rollingnews.htm> (on file with the *Columbia Law Review*) (summarizing S&P report and noting that investor acceptance of the new security was, in S&P’s judgment, still an open question); Who Will Buy CoCos?, *Banking Newslink*, Dec. 21, 2010 (on file with the *Columbia Law Review*) (discussing S&P report). Credit Suisse has announced an intention to make major issuances of contingent capital, possibly as much as \$30 billion. See Justin Baer & Francesco Guerrera, *Credit Suisse Plans Early CoCo Moves*, *Fin. Times* (London), Dec. 13, 2010, at 1. Barclays, which ironically purchased much of Lehman Brothers’s assets, is attracting even greater attention as it implements a plan to use contingent capital to pay executive bonuses. See Francesco Guerrera et al., *Big Banks Keep Close Watch on Barclays’ Cocos-for-Bonuses Plan*, *Fin. Times* (London), Jan. 31, 2011, at 1; see also Steve Dinneen, *Barclays Hopes Its New CoCo Will Prove a Hit with Investors*, *City A.M.* (London), Nov. 16, 2010, available at <http://www.cityam.com/news-and-analysis/barclays-hopes-its-new-coco-will-prove-hit-investors> (on file with the *Columbia Law Review*) (noting Barclays is “experimenting with” a contingent convertible that would “not only convert to equity if the bank’s capital ratio declined, but convert back again if things improved”). Overall, it appears that some \$6 billion of “reverse convertible” bonds were sold by banks during 2010. Zeke Faux, *Wall Street Turns Stock Gains into Investor Losses with Structured Notes*, *Bloomberg*, Jan. 5, 2011, at <http://www.bloomberg.com/news/2011-01-06/wall-street-turns-stock-gains-into-investor-losses-with-structured-notes.html> (on file with the *Columbia Law Review*).

30. For precisely this reason, the Dodd-Frank Act instructs the FSOC to “make recommendations to the [Federal Reserve] Board of Governors concerning the establishment of heightened *prudential* standards for . . . contingent capital,” Pub. L. No. 111-203, §§ 112(a)(2)(I), 115(b)(1)(F), 124 Stat. 1376, 1395, 1403 (2010) (to be codified at 12 U.S.C. §§ 5322, 5325) (emphasis added), and authorizes the Board to adopt such prudential standards, *id.* § 165(b)(1)(B)(i) (to be codified at 12 U.S.C. § 5365).

The Act also requires the FSOC to report to Congress and the Federal Reserve Board on the feasibility of a contingent capital *requirement*, *id.* § 115(c) (to be codified at 12 U.S.C. § 5325), and authorizes the Board, subsequent to the receipt of this report, to adopt such a requirement, *id.* § 165(c) (to be codified at 12 U.S.C. § 5365). See also *infra* notes 132–137 and accompanying text.

standard, and (4) to reduce the need to rely on regulators' willingness to take decisive action in a politically challenging environment. In contrast, simply requiring the greater use of equity in the capital structure of financial institutions (as the critics of contingent capital prefer) cannot achieve these same objectives and may require banks to reduce their level of lending.³¹

Properly designed, contingent capital can do precisely what the private bailout fund cannot do. Not only can it prevent the fall of the first interconnected domino (as can the private bailout fund), but it also protects against the danger that systemically significant financial institutions may face highly correlated risks. Under this high correlation scenario, a private bailout fund would likely be quickly exhausted. But contingent capital builds loss absorbency into each systemically significant firm's capital structure, so that the industry can survive, even if multiple firms are affected. To be sure, such firms would likely have to pay a higher interest rate on such a contingently convertible debt security to market it, but this actually has the hidden advantage of creating a functional equivalent to the IMF's "bank tax." That is, the likely higher interest rate paid by the issuer on contingent capital at least partially offsets the implicit subsidy that "too big to fail" banks otherwise enjoy. Further, contingent capital is less subject to the danger that regulators, because of political or legal controversies, will fail to intervene. In essence, a preplanned contract replaces the bankruptcy process and thus does not depend on regulators properly exercising their resolution authority.

Important as all these potential advantages are, an even greater advantage may be that contingent capital can be designed to address the key factor that may lead issuers to take on excessive leverage: namely, shareholder pressure. To this end, this Article proposes a design for contingent capital that deviates from earlier proposals in two significant ways: (1) The conversion ratio would be deliberately designed to protect the debt holders from loss by instead diluting the existing equity holders, and (2) the debt security would convert into a fixed return preferred stock with cumulative arrearages and significant voting rights. Because the new preferred stock would have only a limited, fixed return and would not share in the firm's residual earnings, the interests of the preferred stockholders would be naturally aligned with those of the firm's debt holders. These preferred shareholders would be rationally risk averse, and they would have significant voting rights. The goal behind this use of preferred stock is to create a countervailing voting constituency to offset the voting power of risk-tolerant common shareholders, thereby reducing the pressure on corporate managers to accept greater risk and leverage.

31. If regulators require a higher ratio of equity to total assets, financial institutions may be compelled to reduce their liabilities by redeeming or retiring debt. Reducing outstanding liabilities would lower their level of leverage, but would likely also imply lower lending levels, which could curtail economic expansion and recovery over an interim period.

So designed, it would not be necessary that a conversion of the debt security actually occur for contingent capital to have a disciplining impact on the common shareholders and deter excessive risk taking. If, as later proposed, conversion were to occur at several, incremental stages as prescribed contingencies occurred, the market would understand that, at these clearly defined trigger points, conversion would become mandatory and would dilute both the common shareholders' cash flow and voting rights. Thus, as the issuer approached these trigger points, the market would recognize that wealth transfers from the common shareholders to the contingent debt holders were probable and would discount the market price of the issuer's common stock. Even if the market (and common shareholders) might otherwise favor increased leverage, this risk of the common stock's dilution on conversion of the debt security should counterbalance that pressure. The key here is to design an early trigger, so that increased leverage carries a cost for shareholders from an early point.

Because shareholder pressure is at the center of this explanation for why financial institutions failed in 2008, it is important to stress at the outset the differences between the foregoing account of the 2008 crisis and the more conventional story. In the standard story, managers are assumed to have overreached more cautious and prudent shareholders because the incentives of managers were geared to the short term and toward risk preference as the result of compensation formulas that they designed.³² This overstates. In truth, shareholder pressure usually influences managerial preferences, and modern corporate governance has increasingly reduced the "agency costs" that once enabled managers to resist or disdain shareholder pressure. As discussed below, the more "shareholder friendly" the firm's corporate governance system, the less attention is likely to be paid to externalities, and the greater the exposure to volatility and systemic risk.³³

In contrast to shareholders, managers tend to be more risk averse.³⁴ This is both because they (1) face greater legal and reputational risks from a corporate failure than do shareholders, and (2) suffer more economically from a failure because managers, almost by definition, are undiversified and tend to have significant firm-specific capital invested in their firms. This claim is hardly new. Indeed, a well-known literature in

32. For basically such an account, see Bebchuk & Spamann, *supra* note 8, at 255–74; Lucian A. Bebchuk et al., *The Wages of Failure: Executive Compensation at Bear Stearns and Lehman 2000–2008*, 27 *Yale J. on Reg.* 257, 261 (2010).

33. For empirical evidence supporting this proposition, see *infra* notes 41–49 and accompanying text.

34. This is traditionally cited as one reason that managers resist takeovers and "going private" transactions, which involve greater leverage. I have explored this theme at length elsewhere. See John C. Coffee, Jr., *Shareholders Versus Managers: The Strain in the Corporate Web*, 85 *Mich. L. Rev.* 1, 19–21 (1986) (noting "managers [are] more risk averse than their shareholders" and that consequently, "leverage . . . is something that managers avoid").

corporate finance has argued that managers tend to hoard “free cash flow” (i.e., cash that could be used for shareholder distributions) and have historically resisted shareholder pressure for greater dividends.³⁵ Inefficient as such “free cash flow” hoarding may be in the general corporate context, it could be more desirable in the case of major financial institutions because it implies increased capital reserves and thus reduces the risk of a major bankruptcy that might set off a cascade of interconnected financial failures.

The roadmap for this Article follows from these linked contentions that (1) shareholder pressure must be reduced at systemically significant financial institutions, and (2) traditional “safety and soundness” regulation will predictably fail at some point. Part I examines the impact of shareholder pressure as the force most logically explaining the shift toward excessive risk taking and leverage at financial firms. Although this pressure exists at all corporations, it seems more intense at large financial firms where shareholders rationally want their managements to exploit the opportunity to borrow at below-market interest rates because of the market’s perception that these firms are “too big to fail.” Part II turns to the political economy of financial regulation and the predictability of a future systemic failure. It posits the inevitability of a “regulatory sine curve” under which regulatory activism, while intense in the wake of a regulatory crisis, relaxes thereafter, as lobbying and the impact of regulatory arbitrage soften the resistance of regulators. From this premise, and the premise that liquidity crises are endemic to banking, it follows that to the extent that we strip regulators of the power to advance funds to banks caught in such a liquidity crisis (as the Dodd-Frank Act does), we must find some substitute that insulates the financial system so that a local shock cannot cause a financial panic.

Part III then turns to this Article’s preferred strategy—the mandatory use of contingent capital—and explains that its greatest strength is that it can work even when regulatory oversight fails and a crisis sneaks in under the regulators’ radar screen (as it always has in the past). Contingent capital is not presented as a panacea or as an adequate remedy by itself, but more as a failsafe, supplementary protection. If we recognize both that some regulatory failures are inevitable and that the interconnections among financial firms may lock the financial industry into a downward spiral if any major firm fails, such a failsafe option seems a prudent necessity.

A final and even deeper premise of this Article is that, in the case of major financial institutions, governance arrangements cannot be simply the product of private negotiations among shareholders, managers, and other corporate constituencies. Private optimality and social optimality

35. This literature begins with Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, 76 *Am. Econ. Rev. (Papers & Proc.)* 323 (1986). Of course, the ability to hoard “free cash flow” declined as corporate governance became more shareholder-friendly.

diverge. Banks are different—because the public inevitably stands behind them as their guarantors of last resort. Systemic risk is in truth but one form of the classic externality problem. Pollution is the classic example of an externality, as the polluting firm does not bear the full social costs that it creates. By definition, systemic risk similarly involves costs that are externalized by the firm and fall instead on society.³⁶

Nonetheless, the proposals advanced here are conservatively designed to give creditors voting power only once the corporation enters the “vicinity of insolvency,”³⁷ and they do not generally seek to override the shareholders’ power to determine corporate policy. Because creditors are by no means the champions of economic efficiency, voting power is conferred on them only in limited circumstances as the least restrictive alternative by which to mitigate the potential externalities that arise in a world of deeply interconnected financial institutions and markets.

I. THE SIGNIFICANCE OF SHAREHOLDER PRESSURE

The conventional story of the 2008 crisis—as best told by Professor Lucian Bebchuk and his coauthors³⁸—focuses on the perverse influence of executive compensation. They argue not only that executive pay packages were excessively focused on short-term results, but that because senior executives’ compensation packages were closely tied to highly levered bets on the value of the banks’ assets, such executives shared in any shareholder gains but were insulated from shareholder losses.³⁹ Hence, executives could focus on the upside and ignore the downside of any risky strategy. The result, they argue, is a classic moral hazard problem.

To corroborate their claim, Bebchuk and his coauthors have collected data showing that senior managers appeared to have profited handsomely even when shareholders lost virtually everything. Examining the failures of Bear Stearns and Lehman, they find that the top five exec-

36. The core idea underlying systemic risk is that one failure induces others. Of course, the individual firm bears some of the costs, but not all (even when it does not fail). For example, when a distressed financial institution dumps illiquid assets (such as a portfolio of asset-backed securitizations) on a thin market in order to raise capital, it depresses the value of similar assets and hence reduces the market value of other financial institutions that have invested similarly. This is an example of the consequences of financial institutions facing highly correlated risks. See *supra* note 1. And if its own bankruptcy causes other failures (or necessitates public bailouts of other firms, as Lehman’s failure arguably did), then it also imposes broader costs on society. These costs fall on parties other than shareholders.

37. This phrase, used by Chancellor William Allen in *Credit Lyonnais Bank Nederland, N.V. v. Pathe Commc’ns Corp.*, Civ. A. No. 12150, 1991 WL 277613, at *34 (Del. Ch. Dec. 30, 1991), has long served as a shorthand term for the undeniable economic fact that shareholders have perverse incentives to take high risk (at the expense of creditors) when their corporation is on the doorsteps of insolvency.

38. See generally Bebchuk & Spamann, *supra* note 8; Bebchuk et al., *supra* note 32.

39. Bebchuk & Spamann, *supra* note 8, at 249–50.

utives at each firm cashed out extraordinary amounts of performance-based compensation during the 2000–2008 period. Specifically, they estimate that these top five management teams derived \$1.4 billion and \$1 billion, respectively, from cash bonuses and equity sales during this period.⁴⁰ These amounts substantially exceeded the same executives' stock holdings at the beginning of the period. If managers win when shareholders lose, this finding would seem to confirm Bebchuk's moral hazard diagnosis.

Their research has not, however, gone unchallenged. In particular, Rene Stulz has coauthored several papers that dispute this thesis that the executive compensation formulas for senior executives at financial institutions drove the 2008 crisis by creating an excessive incentive to accept risk.⁴¹ In one paper, he and a coauthor find evidence that those banks with chief executive officers (CEOs) whose incentives were better aligned with their shareholders actually performed worse during the crisis.⁴² They suggest that "CEOs with better incentives to maximize shareholder wealth took risks that other CEOs did not."⁴³ Nor do they find that bank CEOs reduced their stock holdings prior to 2008; hence, they suffered large wealth losses along with the shareholders.⁴⁴ In short, little evidence supports the claim that shareholders were being overreached by their CEOs.

In another study, Stulz and a coauthor find that banks with "shareholder-friendly" corporate governance performed worse during the 2008 crisis.⁴⁵ Indeed, banks that the market had favored in 2006 had especially poor returns during the crisis.⁴⁶ In other words, financial institutions that led the market in 2006 encountered disaster in 2008. In contrast, financial institutions that had seemed stodgy and unresponsive to shareholder desires in 2006 experienced the fewest losses in 2008. Such findings are at least consistent with the view that shareholder pressure led managers to take on higher leverage and accept greater risk in the boom

40. Bebchuk et al., *supra* note 32, at 261.

41. Andrea Beltratti & Rene M. Stulz, *Why Did Some Banks Perform Better During the Credit Crisis? A Cross-Country Study of the Impact of Governance and Regulation* (European Corporate Governance Inst., Finance Working Paper No. 254/2009, 2009), available at <http://www.ssrn.com/abstract=1433502> (on file with the *Columbia Law Review*); Rüdiger Fahlenbrach & Rene M. Stulz, *Bank CEO Incentives and the Credit Crisis* (The Ohio State Univ. Fisher Coll. of Bus., Working Paper No. 2009-13, 2009), available at <http://www.ssrn.com/abstract=1439859> (on file with the *Columbia Law Review*).

42. See Fahlenbrach & Stulz, *supra* note 41, at 1–2 (arguing most plausible explanation for these findings is CEOs "took actions that they believed the market would welcome," but "[e]x post, these actions were costly to their banks").

43. *Id.* at 26.

44. *Id.* at 2, 4.

45. Beltratti & Stulz, *supra* note 41, at 3.

46. *Id.* at 2. Banks that performed in the worst quartile of performance during the 2008 crisis had average returns of -87.44% during the crisis, but an average return of +33.07% in 2006. The best performing banks during the crisis had average returns of -16.58% during the crisis, but only average returns of +7.80% in 2006. *Id.* at 14.

years—with catastrophic consequences later in 2008. Shareholders in effect opted for a financial roller coaster, and the firms they controlled soared to record peaks and plunged to deep valleys in rapid succession.

Other studies by different teams of researchers have reached similar conclusions. Gropp and Köhler find that “owner controlled” banks had higher profits in the years before the 2008 crisis in comparison to “manager controlled” banks, but experienced larger losses and were more likely to require governmental assistance during the 2008 crisis.⁴⁷ Using a sample of 296 firms from thirty countries, Erkens, Hung, and Matos show that firms with more independent boards and higher institutional ownership experienced worse stock returns during the 2007–2008 crisis.⁴⁸ Specifically, they found that firms with higher institutional ownership took “greater risk in their investment policies before the onset of the crisis.”⁴⁹ Such evidence suggests that even if managers would prefer to avoid high risk and leverage, their preferences can be overridden by shareholders, and that institutional investors in particular can compel firms to accept greater risk and thus cause them to suffer worse losses in a crisis.

Does this research disprove the claims of Bebchuk and his colleagues? That is *not* this Article’s contention. Bebchuk and his coauthors argue that the pay formulas used to compensate senior management at banks gave them an excessive incentive to accept risk. But such an increased incentive could be exactly what shareholders wanted. Shareholders have long used executive compensation to align managerial preferences with their own, and institutional investors certainly understand that managers are undiversified and thus risk averse about corporate insolvency. To “correct” this tendency, shareholders could have been willing to accept even imperfect compensation formulas to seduce managers into accepting increased risk. Thus, both sides in this debate could have valid points. Bebchuk and company could be correct that compensation formulas create excessive incentives for bank managers to engage in risky activities, and Stulz and others can legitimately interpret their own data to mean that shareholder-controlled firms accept higher risk and hence are more prone to failure in a crisis than firms in which managers are free to enjoy the quiet life (and so avoid risk). Rather than managers overreaching shareholders, it looks instead as if manager incentives have been at least crudely aligned with those of their shareholders by these compensation formulas. Under this synthesis, shareholders, as princi-

47. Reint Gropp and Matthias Köhler, *Bank Owners or Bank Managers: Who is Keen on Risk? Evidence from the Financial Crisis 21* (European Bus. Sch., Research Paper No. 10-02, 2010), available at <http://ssrn.com/abstract=1555663> (on file with the *Columbia Law Review*).

48. David Erkens, Mingyi Hung & Pedro Matos, *Corporate Governance in the 2007–2008 Financial Crisis: Evidence from Financial Institutions Worldwide 2* (European Corporate Governance Inst., Finance Working Paper No. 249/2009, 2010), available at <http://ssrn.com/abstract=1397685> (on file with the *Columbia Law Review*).

49. *Id.*

pals, simply found ways to contract with managers, as their agents, to accept greater risk through lucrative compensation formulas.

But that only brings us back to the centrality of shareholder pressure and the gap in bank governance between what is privately optimal and what is socially optimal. Arguably, shareholders of financial institutions were willing to accept high leverage and risk, not simply because they were diversified, but because they believed that (1) major banks were either “too big to fail” or “too interconnected to fail,” and (2) the implicit reduction in interest expense charged to “too big to fail” banks created an opportunity for “cheap” capital that could not be spurned. Based on these expectations, shareholders of major financial institutions could rationally pressure management to accept more risk than shareholders might consider advisable at industrial corporations.

At this point, it is necessary to disaggregate shareholders. Individual shareholders may sometimes also be risk averse and disinclined to pressure management toward greater risk and leverage, but they are a decreasing minority of all shareholders.⁵⁰ Not only do institutional investors own a majority of the equity in U.S. public corporations, but their level of ownership rises to 73% when we focus on the top 1,000 U.S. corporations (among which large financial institutions easily rank).⁵¹ Mutual funds now represent the largest category of institutional owner (in terms of equity holdings).⁵² Their rise is important because, in comparison to pension funds, mutual funds more actively compete for the investor’s favor, and their recent investment returns are likely to heavily influence this competition. Hence, they tend to be more proactive investors.

Historically, pension funds were largely indexed investors, holding large portfolios that mimicked the broader market. Thus, they were disinclined to become involved in individual corporate governance disputes because they could not profit significantly from them.⁵³ But this is changing. Increasingly, pension funds are investing their stock portfolios in hedge funds to obtain returns superior to simple indexing.⁵⁴ In turn,

50. Recent estimates find retail (or individual) shareholders own only roughly 25% of the stock in publicly traded firms, with the balance being owned by institutional investors and foreign investors (who are also largely institutions). Alan R. Palmiter, *Staying Public: Institutional Investors in U.S. Capital Markets*, 3 *Brook. J. Corp. Fin. & Com. L.* 245, 262 tbl.1 (2009). Since 2001, institutional investors have held over 50% of the total outstanding equity in U.S. public corporations. The Conference Bd., *The 2010 Institutional Investment Report: Trends in Asset Allocation and Portfolio Composition* 22 (2010).

51. See The Conference Bd., *supra* note 50, at 27 chart 14 (showing this percentage to have been 76.4% in 2007 and 73% in 2009).

52. *Id.* at 24–26 & tbl.12 (showing mutual funds held 20.9% of the total equity market in 2009, slightly more than pension funds in aggregate).

53. For the standard observation that many institutional investors hold too large a portfolio to have much interest in firm-specific corporate governance, see, e.g., Robert Cyran, *Beware: Activists Are on the Hunt*, *N.Y. Times*, Mar. 4, 2010, at B2.

54. For example, CalPERS began investing in hedge funds in 2002 and has “moved the majority of its portfolio into direct investments in single and multistrategy hedge

these hedge funds pursue proactive strategies, and one of their favorite targets is the underleveraged firm.⁵⁵

The shareholders' preference for leverage is complemented (and to a degree made possible) by the creditors' continuing expectation that they will be protected in a federally assisted rescue of a failing financial institution. When faced with a failing bank, the federal government has traditionally arranged shotgun marriages through mergers (with federal assumption of at least some of the failing firm's liabilities).⁵⁶ This was the strategy followed in the cases of Bear Stearns, Merrill Lynch, and Wachovia during the 2008 crisis. Under this standard pattern, even if the shareholders of the failed bank were not protected, its creditors were. Thus, the implicit subsidy in interest rates remains and should logically continue to motivate shareholders to seek to exploit "cheap" financing at the cost of excessive leverage.

Although the Dodd-Frank Act purports to preclude any public bailout of a failing financial institution, the shotgun marriage alternative remains alive under the FDIC's resolution authority. Hence, creditors (although not shareholders) may still expect to be saved; if so, the implicit subsidy survives. The bottom line then is that so long as some major banks are perceived to be "too big to fail," their shareholders (or at least the most proactive among them) will have rational incentives to exploit the implicit subsidy in interest rates by taking on what is undue risk from the perspective of social optimality. One can ascribe this relative indifference of shareholders to the risk of failure by their financial institution to a variety of possible causes: (1) a belief that the government will not allow major banks to fail, (2) a lesser level of risk aversion because shareholders are diversified, or (3) the possibility that proactive equity shareholders see short-term gains from increasing leverage and believe they can exit the firm before it encounters financial distress. For this Article's purposes, it is not necessary to choose a preferred theory, as all lead to the same bottom line: Public policy must seek to counteract the excessive shareholder tolerance for risk in the case of major financial institutions. A focus that is limited to regulating managerial compensation is myopic

funds." Christine Williamson, *Big Public Funds Outperform Their Hedge Fund Yardsticks: Plans Studied by P&I Post Average Gain of 11% in the Portfolios, Pensions & Investments*, Sept. 20, 2010, at 1, 42. A number of other state pension funds have followed CalPERS in this shift. *Id.*

55. Typically, the target of such an activist shareholder is an underperforming firm "with a pristine balance sheet." Cyran, *supra* note 53. Often, the activist shareholder proposes the sale of assets and a special dividend of the proceeds, which also raises leverage.

56. Confronted with an approaching bank failure, the FDIC's preferred strategy has long been to arrange a "purchase and assumption" transaction with another bank—in effect, a shotgun marriage aided by the FDIC assuming some of the failed bank's liabilities. Jonathan R. Macey & Geoffrey P. Miller, *Bank Failures, Risk Monitoring, and the Market for Bank Control*, 88 *Colum. L. Rev.* 1153, 1182 (1988). In the standard "purchase and assumption" transaction, "the deposits of the failed bank are assumed by another bank, which also purchases some of the failed bank's assets." *Id.*

because even if compensation had been strictly regulated by the Dodd-Frank Act (and it was not), shareholders of financial institutions could find other means by which to pressure and incentivize their managements.

Ironically, the Dodd-Frank Act has actually increased the ability of shareholders to pressure managers to increase leverage and accept greater risk. The Act expressly authorized the SEC to adopt rules giving shareholders “access to the proxy statement,”⁵⁷ enabling dissidents to mount campaigns for minority seats on the board without having to undertake costly proxy fights. The SEC responded to this invitation by quickly adopting new Rule 14a-11, which authorizes dissident shareholders to place their nominees on the corporate board at low cost.⁵⁸ Rule 14a-11 may be a desirable counterweight to entrenched managerial power in much of Corporate America, but again, financial institutions are a special case. Given the natural tension between the social interest in prudent bank regulation and the shareholder interest in profit maximization through higher leverage, corporate governance reforms that enhance shareholder power may at the same time weaken regulatory control over financial institutions. Specifically, the specter of hedge funds and other proactive investors using their new proxy access powers to place their candidates on the boards of major banks should give one pause, because it will be a likely prelude to those same activists pressuring management for increased leverage.

57. Section 971 (“Proxy Access”) of the Dodd-Frank Act added a new § 14(a)(2) to the Securities Exchange Act of 1934 that authorizes the SEC to adopt rules under which dissident shareholders may nominate candidates for the board of directors of a public company and include their nominees in the issuer’s own proxy statement (thereby permitting these insurgents to economize on the costs of conducting a proxy fight). Dodd-Frank Act, Pub. L. No. 111-203, § 971, 124 Stat. 1376, 1915 (2010) (to be codified at 15 U.S.C. § 78n).

58. Facilitating Shareholder Director Nominations, Securities Act Release No. 9136, Exchange Act Release No. 62,764, Investment Company Act Release No. 29,384, 75 Fed. Reg. 56,668 (Sept. 16, 2010). Specifically, if certain conditions are satisfied, the new rule will permit shareholders holding 3% or more of the corporation’s voting power for a three year holding period to nominate candidates to fill up to the greater of (1) 25% of the director positions to be elected, or (2) one director. *Id.* at 56,674–75. These alternative candidates would run against those nominated by the Board’s nominating committee. Effectively, this procedure spares the insurgents much of the costs of a proxy contest.

The business community continues to resist this SEC initiative and has sued to invalidate the rule. Zachary A. Goldfarb, *Business Trade Groups Fight New Proxy Rule*, Wash. Post, Sept. 30, 2010, at A18; Jessica Holzer, *Lawsuit Aims to Overturn Proxy Rule in Overhaul*, Wall St. J., Sept. 30, 2010, at C3.

Rule 14a-11 has been temporarily suspended by the SEC pending legal challenges to its adoption. See *Facilitating Shareholder Director Nominations*, Securities Act Release No. 9151, Exchange Act Release No. 63,109, Investment Company Act Release No. 29,462, 75 Fed. Reg. 64,641, 64,641 (Oct. 20, 2010) (noting effective and compliance dates of Rule 14a-11 were stayed pending resolution of Business Roundtable’s suit against the SEC).

II. THE PREDICTABILITY OF SYSTEMIC FAILURES

Even if implemented decisively and administered prudently (neither of which can be safely assumed), the Dodd-Frank Act will still not prevent the failure of another systematically significant financial institution. Why not? The answer stems from three interrelated factors: (1) inherent bank fragility; (2) a recurring cyclical pattern (which this Article will call the “regulatory sine curve”) under which, after a market crash, a period of rigorous regulatory scrutiny is followed by gradual relaxation of the rules and possibly partial capture of the regulator by the industry; and (3) cognitive limitations on the ability of both private gatekeepers and public regulators to perceive new risks accurately (before it is demonstrably too late). This claim that systemic failures will periodically recur may sound overly provocative, but it is simply a distillation of what financial historians have long reported. From the classic work of Charles Kindleberger⁵⁹ to more recent work by Carmen Reinhart and Kenneth Rogoff,⁶⁰ economic historians have agreed that human beings have bounded rationality and will predictably be blindsided by a new crisis. Accordingly, this section will attempt only a brief overview of ground that other scholars have recently ploughed at greater depth.

A. *Bank Fragility*

Banks (and similar financial institutions) are subject to a fundamental mismatch between the short-term character of their liabilities and the longer-term character of their assets.⁶¹ Depositors expect and receive high liquidity, while borrowers expect to repay their loans over a multi-year period. In good times, banks profit from this “maturity transformation,” realizing the spread between the lower rate paid depositors and the higher rate charged to borrowers. But, in bad times, banks have been classically subject to “runs” when depositor confidence is shaken.⁶²

This mismatch is compounded by the necessity for a financial institution of using leverage. Only banks that employ high leverage can realize the full economies of scale that are inherent to the banking business. The more that a bank borrows and lends, the more it can profit on its fixed costs. Given these natural tendencies, depositors and investors have historically had reasons to lack confidence in banks. Thus, to maintain investor confidence and avert runs, financial regulators have long en-

59. Charles P. Kindleberger, *Manias, Panics and Crashes* (1975).

60. Carmen M. Reinhart & Kenneth S. Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (2009).

61. For an overview, see Richard A. Posner, *A Failure of Capitalism: The Crisis of '08 and the Descent into Depression* 128–30 (2009).

62. For standard accounts of this tendency, see generally Charles W. Calomiris & Joseph R. Mason, *Fundamentals, Panics, and Bank Distress During the Depression*, 93 *Am. Econ. Rev.* 1615 (2003); Douglas W. Diamond & Philip H. Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*, 91 *J. Pol. Econ.* 401 (1983). For a concise summary of this literature, see Gordon & Muller, *supra* note 14, at 7–13.

gaged in “safety and soundness” regulation that is designed (at least in part) to convince creditors that their institution can handle sudden increases in either the rate of depositor withdrawal (in the case of banks) or in the unwillingness of short-term creditors to roll over their debt obligations (in the case of “shadow” banks, such as Bear Stearns, Lehman, or AIG).

To be sure, a traditional bank run did not cause the 2008 financial crisis, but panic does appear to have played a role. The rise of derivatives and asset-backed securitizations were the two most distinctive new elements that explain the 2008 crisis, and derivative trading, particularly in the case of credit default swaps, tied together major financial institutions as counterparties, so that the failure of one could cause the failure of others.

Financial institutions also became more subject to systemic risk because the risks they faced became increasingly correlated. Over the decade prior to 2008, major commercial and investment banks had invested heavily in asset-backed securitizations and profited handsomely by underwriting these new classes of securities. Either because they also invested in these securities or just had numerous deals in the pipeline, their balance sheets were heavily laden with such securities. To hedge this risk, they relied on credit default swaps, which largely depended on the solvency of AIG, the underlying counterparty for much of the market. Thus, when Bear Stearns effectively failed in early 2008, it was obvious that the other major investment banks—in particular, Lehman, Merrill Lynch, and Citigroup, which had all aggressively pursued the same business strategy—were vulnerable as well.⁶³ To sum up, it oversimplifies to say that Bear Stearns or Lehman was “too big to fail,” but they were both “too interconnected to fail” and “too correlated to fail.”

Although investment banks are different from commercial banks in that they do not have depositors, they are equally subject to the same mismatch of short-term liabilities and long-term assets, because typically they finance their operations with short-term, often overnight borrowings in the “repo” market.⁶⁴ Thus, when the market suspects that a financial

63. A core aspect of systemic risk is that risks are correlated. See *supra* note 1. If banks are known to be following similar policies or have made similar investments, then financial distress at one implies likely financial distress at others. Particularly when transparency is lacking, market participants may be unwilling to advance funds or extend credit to other financial institutions based on these “similarity” concerns. See Anabtawi & Schwarcz, *supra* note 4, at 26 (discussing implications of “interconnectivity among financial institutions” for systemic stability); Gordon & Muller, *supra* note 14, at 9–10 (noting depositors may “learn from the failure of one bank with a particular . . . strategy that similarly situated banks—banks following a common strategy—are also at risk”).

64. The term “repo” refers to “security repurchase agreements,” which usually involve highly liquid, investment grade securities that the borrower sells to the creditor at a slight discount but agrees to repurchase at the higher market price on a very short-term basis. If the borrower fails to repurchase, it suffers the loss of this discount. For discussion of the repo market and its destabilizing impact on the contemporary banking system, see Gary

institution is subject to a risk of insolvency, short-term creditors may stage their own bank “run” by refusing to renew short-term credit lines or vastly increasing the interest rate. This functional equivalent to a “run” by depositors appears to have happened not only at Bear Stearns and Lehman, but across the banking system in 2008.⁶⁵ Gary Gorton has argued that the 2008 panic was different from most panics in the nineteenth and early twentieth centuries in that it was a “wholesale” panic, not a “retail” panic, because the market suddenly learned that the banking system as a whole had become insolvent.⁶⁶

This point about the “wholesale” character of the crisis explains why reforms such as private, industry-funded bailout funds are likely to prove inadequate. Insurance can work to avert a crisis when a small percentage of the industry may fail, but not when a plurality may all fail contemporaneously because of risk correlation. In 2009, much of the financial industry was threatened, and the banking system effectively froze.⁶⁷

Another dimension of the systemic risk problem involves the speed with which regulatory interventions must be effected to work. Because of the dependence of banks on short-term financing, the end comes quickly for a financial institution that loses credibility with the market. Time is therefore of the essence in any effort to structure either a bailout or a merger to prevent a panic-inducing insolvency. When Bear Stearns began to collapse on Friday, March 14, 2008, the Federal Reserve had only a weekend to negotiate a merger between Bear Stearns and JPMorgan Chase. No willing merger partner could be found for Lehman within similar time constraints.⁶⁸ Resolution authority may give regulators more time, but how much time depends on how early they recognize the crisis.

Gorton & Andrew Metrick, *Regulating the Shadow Banking System* 15 (Oct. 18, 2010) (unpublished working paper), available at <http://ssrn.com/abstract=1676947> (on file with the *Columbia Law Review*).

65. Gary Gorton, *Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007*, at 4–5 (May 9, 2009) [hereinafter Gorton, *Invisible Hand*] (unpublished working paper), available at <http://ssrn.com/abstract=1401882> (on file with the *Columbia Law Review*).

66. *Id.* at 37–38.

67. See Victoria Ivashina & David Scharfstein, *Bank Lending During the Financial Crisis of 2008*, at 2–3 (July 2009) (unpublished working paper), available at <http://ssrn.com/abstract=1297337> (on file with the *Columbia Law Review*) (finding new loans to large borrowers fell by 47% in the fourth quarter of 2008 in comparison to prior quarter, as banks cut back lending).

68. Efforts were made to attract Barclays PLC, but Lehman’s liabilities were uncertain, and no one, including the federal government, was willing to fully assume them. After Lehman failed, Barclays did acquire Lehman’s brokerage division. To encourage it to do so, Barclays received Federal Reserve loans under the Federal Reserve’s Term Auction Facility that eventually totaled \$232 billion to “fund the liabilities it took on with the acquisition of collapsed investment bank Lehman Brothers.” See Richard Blackden, *Barclays Took Biggest U.S. Loan During Crisis*, *Daily Telegraph* (London), Dec. 2, 2010, at 5. Even these loans were simply to finance the acquisition of Lehman’s brokerage division, and far greater liabilities would have had to be assumed to make it possible for any firm to have acquired its parent.

Both in the case of Bear Stearns and Lehman, regulators appear to have been unaware of the depth of the problems at both firms until relatively near the end. In light of this tendency for regulators to recognize and react to an approaching crisis only belatedly, public policy needs measures that respond earlier based on objective criteria and that do not depend on the subjective judgments of regulators as to when a crisis requires governmental intervention. Finally, if the goal is to reassure the market, it may be self-defeating to force a very troubled firm into receivership in order to aid it; the market reaction may be far more dramatic to such a step than simply to the conversion of some of the firm's debt to equity.

B. *The Political Economy of Financial Regulation*

Most agree that lax regulation on the part of all financial regulators played a significant role in the 2008 financial crisis. But why did this happen? The answer is not that federal financial regulators were incompetent or foolish. Rather, the answer begins with the fact that they were continually on the defensive during the “boom” years after 2000. The period from 2000 on was an era of aggressive deregulation. In 2000, Congress passed the Commodity Futures Modernization Act, which deregulated over-the-counter (OTC) swaps, including, of course, credit default swaps, withdrawing them from the supervision of both the SEC and the CFTC.⁶⁹ In 2004, the SEC adopted its Consolidated Supervised Entity Program, which freed the five largest U.S. investment banks that were not part of a bank holding company (Goldman Sachs, Merrill Lynch, Morgan Stanley, Lehman Brothers, and Bear Stearns) from the SEC's net capital rule.⁷⁰ The result was a sharp increase in leverage at all five firms—at exactly the wrong time from a regulatory standpoint.

Even as of 2008, the industry was pressing for still more deregulation. The message it constantly stressed was that the United States was losing its international competitiveness to other less regulated capital markets (which in blunter terms meant that New York was losing its edge to London, where “light touch” regulation reigned and litigation was disfavored). In 2006, the Committee on Capital Markets Regulation released its influential “Interim Report,” which called for significant dismantling of the existing regulatory structure in order to restore the United States' capital market competitiveness.⁷¹ In 2007, Mayor Bloomberg and

69. Pub. L. No. 106-554, app. E, 114 Stat. 2763, 2763A-365. For the representative view (shared by many) that this Act was “ill-advised” and laid the foundation for the 2008 crisis, see Thomas Lee Hazen, *Filling a Regulatory Gap: It Is Time to Regulate Over-the-Counter Derivatives*, 13 N.C. Banking Inst. 123, 128 (2009).

70. For a concise discussion of the Consolidated Supervised Entity Program and its consequences, see John C. Coffee, Jr. & Hillary A. Sale, *Redesigning the SEC: Does the Treasury Have a Better Idea?*, 95 Va. L. Rev. 707, 735–40 (2009).

71. See generally Comm. on Capital Mkts. Regulation, *Interim Report 80–91* (2006), available at http://www.capmksreg.org/pdfs/11.30Committee_Interim_ReportREV2.pdf

Senator Charles Schumer of New York issued a similar report (albeit more moderate in tone), which also called for deregulation to protect New York City's role as the world's leading financial center.⁷² In 2008, the Treasury Department issued a provocative study that recommended the consolidation of financial regulators, greater reliance on self-regulation, and reduced enforcement.⁷³ Yet, at the same time as these reports were calling for looser, more "principles-based" regulation, the first signs of collapse in the subprime mortgage market were already becoming apparent.

None of this should surprise us. The collective interest of the financial community at the end of a boom is to keep the boom going. Contrary indicators may be collectively repressed. Within the major financial institutions, those who had been the architects of new financial technologies (for example, asset-backed securitizations and credit default swaps) had risen in power and prestige. Any call for increased regulation was an implied criticism of them and was met with stubborn hostility. Internal self-criticism within financial institutions only came later, after the crash, when the once proud leaders of these firms had departed in relative disgrace. More generally, a boom increases the power of the industry vis-à-vis regulators. The longer it continues, the more their business acumen seems confirmed, and the more tentative and equivocal regulators become in urging caution and prudence.

Regulatory arbitrage, in the sense of one nation actively seeking to lure firms from other more regulated countries, did not drive this process of deregulation. But regulatory disparities did enable the U.S. financial industry to insist on maintaining the deregulation of OTC derivatives and the limited oversight of investment bank leverage by giving them a powerful argument: Increase regulation, they claimed, and our bank will be forced to shift its operations abroad. Prosperity, it was argued, depended on leaving the financial industry alone and trusting in its enlightened self-regulation.

After the crash, deregulation and self-regulation are no longer in vogue. Still, the past is prologue. How long will it take for these same attitudes to reappear? The answer probably depends on how far off the next economic boom is. Only in a boom period are financial executives

(on file with the *Columbia Law Review*). Full disclosure requires the acknowledgement that this author contributed to this report (although he was critical of some of its deregulatory proposals).

72. See Jenny Anderson, U.S. Financial Sector Is Losing Its Edge, Report Says, N.Y. Times, Jan. 22, 2007, at C3 (describing Bloomberg/Schumer Report). Full disclosure again requires the admission that this author was consulted in the preparation of this report. Many of the criticisms in these two reports were probably well justified, but neither report fully recognized that deregulation carried risks and could produce catastrophe.

73. Dep't of Treasury, Blueprint for a Modernized Financial Regulatory Structure (2008), available at <http://www.treasury.gov/press-center/press-releases/Documents/Blueprint.pdf> (on file with the *Columbia Law Review*). Professor Sale and I have criticized aspects of this proposal at length elsewhere. Coffee & Sale, *supra* note 70, at 749–73.

treated as omniscient and farsighted. Recent history shows, however, the swiftness with which attitudes can change. In 2002, Sarbanes-Oxley sailed through both Houses of Congress, receiving a unanimous vote in the Senate. A few years later, it was being blamed by politicians and conservative academics as a leading cause of the United States's reduced international competitiveness. The Dodd-Frank Act will likely encounter a similar experience.⁷⁴ Moreover, far more than the Sarbanes-Oxley Act, the Dodd-Frank Act delegates power to administrative agencies, who must, over the next two years, adopt detailed regulations on a variety of low-visibility topics, all of which threaten to reduce the profitability of the financial industry.

Although new restrictions on leverage at financial institutions are certain, the financial industry has shown extraordinary creativity in finding new ways to hide liabilities off their balance sheets. That the major banks were able to conceal billions in liabilities off their balance sheets in SIVs and similar conduits in the period preceding 2008, and that they did so only a few years after Enron collapsed in disgrace in 2001 as a result of similar accounting manipulation, does not inspire confidence in regulatory capacity or vigilance.⁷⁵ What was essentially the same accounting subterfuge worked twice, only a few years apart. Moreover, "window dressing" that improves financial ratios and masks high leverage appears to be a relatively common practice at financial institutions.⁷⁶ Thus, even

74. This second cycle, paralleling the earlier response of "free market" academics to Sarbanes-Oxley, has already begun. See, e.g., Stephen M. Bainbridge, *Dodd-Frank: Quack Corporate Governance Round II*, at 5 (U.C.L.A. Sch. of Law, Law-Econ. Research Paper No. 10-12, 2010), available at <http://ssrn.com/abstract=1673575> (on file with the *Columbia Law Review*) ("Dodd-Frank is to corporate governance as quackery is to medical practice."). This paper self-consciously follows Professor Roberta Romano's earlier attack on the Sarbanes-Oxley Act. Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 *Yale L.J.* 1521 (2005). Similar efforts will predictably follow.

75. In the period leading up to the 2008 crash, banks evaded capital adequacy and leverage requirements by creating off-balance-sheet special investment vehicles (SIVs) to hold large volumes of "super senior" tranches of mortgage-backed CDOs. To purchase and hold these CDOs, the banks relied on short-term debt, thereby exposing themselves to the danger of a panic and a bank run. Daniel Covitz et al., *The Evolution of a Financial Crisis: Panic in the Asset-Backed Commercial Paper Market* 10, 30 (Fed. Reserve Bd., Working Paper No. 2009-36, 2009), available at <http://www.federalreserve.gov/pubs/feds/2009/200936/200936pap.pdf> (on file with the *Columbia Law Review*).

76. A recent examination of the financial statements of the more than 300 U.S. banks and savings institutions that failed over the last four years reveals significant disparities in how they reported their financial condition. According to an analysis by Keefe, Bruyette & Woods, Inc., a specialist in the banking industry, a number of these firms had seemingly strong financial statements with roughly average tangible common equity ratios. Jean Eaglesham, *Hard Call for FDIC: When to Shut Bank*, *Wall St. J.*, Dec. 29, 2010, at C1. This evidence does not imply that "strong banks" were placed into receivership, but rather that failing banks often found ways to dress up their financial statements.

In the wake of Lehman's aggressive use of "window dressing" (including its "Repo 105" transactions, which involved entering into repo transactions on the last day of each quarter to reduce its reported liabilities and financial ratios), the SEC has adopted a new policy to restrict such end-of-the-quarter manipulation of short-term borrowings. Short-

if elaborate new rules are adopted, requiring greater capital adequacy, the industry will both lobby for loopholes and exemptions in these arcane regulations or employ “window dressing” to camouflage problems.

Enforcement will thus likely be ad hoc and discretionary, depending in part on the financial institution’s political clout. Moreover, as the crisis fades in the public’s memory, the same claims that the U.S. is losing its international competitiveness will be raised again as a justification for relaxing regulation. To be sure, the model for enlightened “light touch” regulation may no longer be London. Instead, the proposed paragon of enlightened minimalist regulation could be Singapore, Hong Kong, or new financial centers elsewhere. But the dynamic will be the same.

As a result, the intensity of regulatory supervision is likely to follow a sine curve: stricter regulation after a crash, followed by gradual relaxation thereafter. As the recent work of financial historians Carmen Reinhart and Kenneth Rogoff suggests, this cycle has recurred many times, with its duration depending on the severity of each crash and the intensity of each boom.⁷⁷ The point here is not that regulation is futile, but that it is insufficient for policymakers to rely on preventive, “safety and soundness” regulation alone. However well-intended, such regulation will predictably be outflanked, relaxed, or rendered obsolete by later developments.⁷⁸

Moreover, some regulatory interventions are likely to be intensely fought by powerful firms able to retain an army of lobbyists. Imagine that financial regulators in the future do detect a Lehman or AIG in the making a year or more before its likely failure. Not only can regulators expect an intense and well-financed political pushback from the threatened

Term Borrowings Disclosure, Securities Act Release No. 9143, Exchange Act Release No. 62,932, 75 Fed. Reg. 59,866 (proposed Sept. 28, 2010) (to be codified at 17 C.F.R. pts. 229, 249). But the SEC is pursuing a “catch up” strategy here, and new techniques for hiding liabilities, which work for a time until the SEC catches up, will predictably be found.

77. See Reinhart & Rogoff, *supra* note 60, at 223–39 (noting “broadly similar patterns in housing and equity prices, unemployment, government revenues, and debt” in past financial crises in an array of countries).

78. These skeptical comments apply not only to how federal regulators will use their new resolution authority, but also to how comprehensively they will extend the new supervisory powers that the Dodd-Frank Act gave them. That Act requires extensive implementation. For example, to reduce systemic risk, Congress legislated that over-the-counter derivatives would become exchange traded and would settle through centralized clearinghouses, but left in loopholes. Dodd-Frank Act, Pub. L. No. 111-203, tit. 7, pt. 2, 124 Stat. 1376, 1658–1754 (2010) (“Regulation of Swap Markets”). One such loophole is that some over-the-counter derivatives might be too specialized to trade over exchanges or through clearinghouses. As the Dodd-Frank Act is implemented, the process will involve the issuance of highly technical regulations in a low transparency environment. One need not be a cynic to expect that the industry will dominate this rule-drafting process and will resist exchange trading and the use of clearinghouses. This resistance is already evident. See Victoria McGrane & Deborah Solomon, CFTC Need for Speed Causes Strains, *Wall St. J.*, Dec. 14, 2010, at C1 (reporting financial industry is seeking to slow down and resist CFTC’s efforts to require use of exchanges and clearinghouses for trading of over-the-counter derivatives).

firm, but the attempt to shut down such a doomed entity may itself produce market disruption (and possible panic) for which the regulators and the incumbent administration will be blamed. Politically, the liquidation of a significant financial institution may be interpreted as an admission of regulatory failure; accordingly, the incumbent administration may seek to avoid the adverse political fallout by seeking to dissuade regulators from taking decisive action (at least until after the next election). Hence, the regulatory appetite to intervene may be limited, even if the problems are recognized in advance.

In short, because dramatic regulatory interventions are likely to be politically costly and because the implementation process will tend to favor the industry, other techniques must be used in combination with preventive regulation to reduce the risk of financial contagion. The earlier, more expected, and less intrusive such interventions are, the less they are likely to be resisted or stalemated by legal or political challenges. Contingent capital can and should be designed to fit within these parameters.

C. Bounded Rationality: Psychological Limits on Risk Perception

To this point, this Article has implicitly assumed that the financial industry overreached investors and that its recklessness largely explains the 2008 crisis. But both sides may have shared responsibility. Moral hazard and agency cost problems may have caused financial institutions, as well as investors, to overlook or repress evidence of the toxic quality of the new financial products entering the market.

The fact that the major banks themselves retained significant positions in the products they were marketing, either by holding collateralized debt obligations (CDOs) in their own portfolios or by guaranteeing the obligations of the SIVs that they created, is evidence of this mutual failure. This suggests that few adequately understood the level of risk that all were assuming. The failure of AIG fits within this category especially well: The management of AIG allowed the firm to insure most of the subprime market through credit default swaps, without adequately understanding the sudden liquidity risks that could befall it on a ratings downgrade.

In short, it is conceivable that no one knew what they were doing and all underperceived the risks. A number of recent commentators have advanced this perspective, arguing that risk was systematically underestimated.⁷⁹ These commentators advance wide-ranging analyses of the indi-

79. See, e.g., Donald C. Langevoort, *Chasing the Greased Pig Down Wall Street: A Gatekeeper's Guide to the Psychology, Culture and Ethics of Financial Risk-Taking*, 96 *Cornell L. Rev.* (forthcoming 2011) (manuscript at 12–13), available at <http://ssrn.com/abstract=1639138> (on file with the *Columbia Law Review*); see also Gary Gorton, *The Subprime Panic*, 15 *Eur. Fin. Mgmt.* 10, 37 (2009) (noting “asymmetric information” meant investors lacked understanding about financial instruments’ structures and levels of risk (internal quotation marks omitted)).

vidual heuristics and biases that cause individuals and organizations to underperceive risk.⁸⁰ Without entering this debate, this Article simply notes that behavioral economics suggests that cognitive limitations may blind both market participants and regulators to approaching danger.

But what is the implication of this research for public policy? The short answer advanced here is that everyone—the financial industry, regulators, and investors—can underestimate risk and respond slowly to mounting evidence of an approaching crisis. All can repress adverse information because its recognition may force them to concede earlier mistakes. If so, one cannot depend exclusively on preventive “safety and soundness” regulation. Rather, one needs failsafe remedies, such as industry insurance funds or contingent capital, that are triggered automatically to mitigate the financial crisis when the bubble eventually bursts. Put simply, if bubbles will recur, one needs to build into the system loss-absorbing mechanisms that work off of objective market signals and not the subjective discretion of regulators.

D. *Traditional Crisis Regulation Versus Dodd-Frank’s Approach*

In the late nineteenth century, Walter Bagehot succinctly defined the role of the central banker: to serve as the lender of last resort, and thereby to prevent a liquidity crisis from creating a financial panic that froze the markets and depressed the economy.⁸¹ The central banker, he advised, had to quickly distinguish between banks facing a liquidity crisis and those that were truly insolvent. The latter should be shut down quickly, but the former should have funds made easily available to them (but at a penalty rate of interest) to avert a general panic. In practice, the line between a liquidity crisis and true insolvency has proven difficult to draw, but for well over a century central bankers have generally recognized the wisdom of Bagehot’s advice. Because of inherent bank fragility, quick intervention is necessary, and its goal should be to save fundamentally sound banks while winnowing out the truly insolvent.

80. See, e.g., George A. Akerlof & Robert J. Shiller, *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism* 167 (2009) (arguing “[t]he crisis was not foreseen” because “[c]onventional economic theories exclude the changing thought patterns and modes of doing business that bring on a crisis”); Emilius Avgouleas, *The Global Financial Crisis, Behavioural Finance and Financial Regulation: In Search of a New Orthodoxy*, 9 *J. Corp. L. Stud.* 23, 28 (2009) (arguing “the neglect or under-estimation of the behavioural aspects of the global financial crisis is arguably the biggest shortcoming of . . . otherwise very valuable policy reforms”); Geoffrey P. Miller & Gerald Rosenfeld, *Intellectual Hazard: How Conceptual Biases in Complex Organizations Contributed to the Crisis of 2008*, 33 *Harv. J.L. & Pub. Pol’y* 807, 813 (2010) (describing various cognitive biases as “intellectual hazard” that “poses a threat to the smooth, orderly, and efficient functioning of the world’s financial markets”).

81. Walter Bagehot, *Lombard Street: A Description of the Money Market* 38 (Batoche Books 2001) (1873). For a discussion of the U.S. experience with bank panics (which were recurrent prior to the FDIC’s creation), see generally Gary Gorton, *Banking Panics and Business Cycles*, 40 *Oxford Econ. Papers* 751 (1988).

The Dodd-Frank Act appears to turn Bagehot's advice on its head. Essentially, it denies bank regulators the ability to target funds to threatened financial institutions, except in cases where the financial institution is to be liquidated pursuant to the FDIC's resolution authority. Thus, the FDIC can advance funds, or guarantee debts, to those firms under the death sentence of a liquidation, but neither it nor the Federal Reserve can do much to help the potentially solvent firm that is teetering on the brink. Because most financial firms are unlikely to concede that they are insolvent (but may readily acknowledge that they need liquidity), the central banker after Dodd-Frank is curtailed in its ability to perform its traditional "lender of last resort" function and must act more as a financial undertaker.

To see this point, one must understand that prior to the Dodd-Frank Act, both the Federal Reserve Board (FRB) and the FDIC had authority to make emergency loans to a troubled financial institution to avert its insolvency, and the FRB actually used this authority to bail out AIG. After the Dodd-Frank Act, both agencies have been greatly restricted in their ability to lend to a failing nonbank financial firm,⁸² except to the extent that such a firm is being liquidated pursuant to the special "resolution authority" that the Dodd-Frank Act gives the FDIC.⁸³

82. Section 1101(a)(6) of the Dodd-Frank Act restricts the FRB's former authority under section 13(3) of the Federal Reserve Act to make emergency loans to a failing institution. Dodd-Frank Act, Pub. L. No. 111-203, § 1101(a)(6), 124 Stat. 1376, 2113-15 (2010) (to be codified at 12 U.S.C. § 343). Under section 1101(a)(6), the FRB can no longer lend to a single firm, but it can make emergency loans "for the purpose of providing liquidity to the financial system, and not to aid a failing financial company." *Id.* Such lending must be incident to a "program or facility with broad-based eligibility." *Id.* Further, section 1101(a)(6) provides that such loans must be fully and adequately collateralized in a manner that "is sufficient to protect taxpayers from losses." *Id.* Neither Lehman nor AIG could have satisfied this standard. Finally, section 1101(a)(6) specifically denies the FRB the power to make loans to a "single and specific company" under its emergency lending authority or to make loans "for the purpose of assisting a single and specific company to avoid bankruptcy, resolution under title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act, or any other Federal or State insolvency proceeding." *Id.* In substance, this language makes explicit that the FRB's emergency lending authority cannot encompass targeted bailout loans to a future AIG or Lehman.

In the case of the FDIC, which is permitted to lend to a "covered financial company" in receivership under section 204(d) of the Dodd-Frank Act, section 212(a) ("No Other Funding") bars the provision of funds by the FDIC to such companies outside of a Title II receivership. *Id.* §§ 204(d), 212(a) (to be codified at 12 U.S.C. §§ 5384, 5392). Although the FDIC can guarantee the obligations of a firm that is being liquidated (and there is no ceiling on its authority in this regard), it can do nothing for an individual firm that remains solvent. Possibly, the FDIC will continue to arrange mergers or "purchases and assumptions." See *supra* note 56 and accompanying text. But, as Lehman showed, there is not always an available buyer.

83. Section 204(d) ("Funding for Orderly Liquidation") of the Dodd-Frank Act authorizes the FDIC to make loans to, or to guarantee the obligations of, a "covered financial company" (i.e., a company in receivership under Title II), but, as just noted, section 212(a) precludes lending to such firms outside this receivership context. Dodd-Frank Act §§ 204(d), 212(a) (to be codified at 12 U.S.C. §§ 5384, 5392).

In place of this former “bailout” authority, Title II of the Act (“Orderly Liquidation Authority”) attempts to craft an intermediate option between a bankruptcy and a bailout. Title II’s compromise, which will apply in the future to nonbank financial firms (such as a Lehman, Bear Stearns, or AIG), intends a controlled winding up of the failing nonbank, rather than a reorganization in bankruptcy. Although the FDIC can advance funds to keep such a firm afloat until the liquidation is completed, neither the FDIC nor the FRB can advance funds to a specific company to enable it to avoid insolvency.⁸⁴ Thus, the Dodd-Frank Act makes FDIC receivership the exclusive route by which such a firm can receive funds from these agencies. This presents a major problem for the firm that is not yet insolvent (and whose shareholders would be wiped out in a liquidation), but that faces a serious liquidity crisis. As just noted, these were the firms that bank regulation classically sought to save. Just as in Vietnam, where it was allegedly necessary to “destroy the village to save it,” the Dodd-Frank Act may actually force some firms into an arguably unnecessary liquidation in order to qualify them for loans. Finally, an overarching question is whether the FRB or the FDIC will have the political courage to place a significant financial institution into receivership before it has clearly failed. Politically, it may be safer and easier to delay and hope for the best.

At this juncture, the utility of contingent capital comes into clearer focus as an alternative means by which to avert unnecessary liquidations. An unjustifiable gap exists between the reach of “safety and soundness” regulation and that of resolution authority. In this zone, financial regulators can do little to help the firm that is not insolvent but that faces a liquidity crisis and may fail because, absent some intervention, short-term creditors are likely to rationally race for exit and refuse to roll over their loans. Recent major financial failures have recurrently involved firms that experienced such a fate.⁸⁵ For the future, it is a lamentably safe prediction that the same overworked, underfunded, and politically pressured financial regulators that missed Long-Term Capital Management, the 2000 IPO stock bubble, Enron, WorldCom, the subprime mortgage crisis, and Bernie Madoff will again miss or fail to call attention to a developing crisis, until it is too late.

III. THE FAILSAFE OPTION: CONTINGENT CAPITAL AS A COMPLEMENT TO REGULATORY OVERSIGHT

Nothing in what has been said so far challenges the need for “safety and soundness” regulation of financial institutions or the wisdom of a

84. See *supra* note 82 and accompanying text.

85. For a recent history of such failures in addition to Lehman and AIG, see Anabtawi & Schwarcz, *supra* note 4, at 8–12 (discussing systemic failures since the Great Depression, including Enron and Long-Term Capital Management); see also Covitz et al., *supra* note 75, at 2–6 (discussing “panic” in short-term commercial paper market); Gorton, *Invisible Hand*, *supra* note 65, at 33–34 (discussing similar problem in “repo” market).

private, industry-funded bailout fund.⁸⁶ The more modest claim has instead been that such preventive safeguards must be supplemented by additional measures. Precisely because the regulator is neither omniscient nor always politically free to act in the manner that it wants, other checks need to be built into the system. But, as just seen, the Dodd-Frank Act actually reduces the options available to regulators for dealing with a troubled financial institution in order to prevent public bailouts. Properly designed, contingent capital can fill much of this void.

A. *The Contingent Capital Alternative: Some Background*

The idea of contingent capital as a means of stabilizing large financial firms is relatively new, and its discussion has been largely confined to financial economists.⁸⁷ Generally, it has been agreed that contingent capital should reduce effective leverage, the risk of a bankruptcy, and the justifications for a bailout.⁸⁸ For these reasons, the Basel Committee on Banking Supervision, the Association for Financial Markets in Europe (AFME), and the Squam Lake Working Group have endorsed the concept, and the Financial Stability Board seems to be leaning in its favor.⁸⁹ Lloyd's Banking Group actually issued such a security in 2009, and Rabobank followed with a larger offering in 2010.⁹⁰ Most recently, in late

86. The House version of the Dodd-Frank Act, which passed the House in December 2009, did contain a significant private insurance fund, but it was dropped at the Conference Committee stage. See H.R. 4173, 111th Cong. § 1609(n) (as passed by House, Dec. 11, 2009); *supra* note 17 and accompanying text.

87. See, e.g., Mark J. Flannery, No Pain, No Gain? Effecting Market Discipline via "Reverse Convertible Debentures", in *Capital Adequacy Beyond Basel: Banking, Securities and Insurance* 171, 171–72 (Hal S. Scott ed., 2005) [hereinafter Flannery, No Pain]; Mark J. Flannery, Stabilizing Large Financial Institutions with Contingent Capital Certificates 3 (Oct. 6, 2009) (unpublished manuscript), available at <http://ssrn.com/abstract=1485689> (on file with the *Columbia Law Review*) [hereinafter Flannery, Stabilizing]; Robert L. McDonald, Contingent Capital with a Dual Price Trigger 1 (Feb. 15, 2010) (unpublished manuscript), available at <http://ssrn.com/abstract=1553430> (on file with the *Columbia Law Review*).

88. See, e.g., George Pennacchi, A Structural Model of Contingent Bank Capital 28 (Fed. Reserve Bank of Cleveland, Working Paper No. 10-04, 2010), available at <http://ssrn.com/abstract=1595080> (on file with the *Columbia Law Review*); Flannery, Stabilizing, *supra* note 87, at 3; McDonald, *supra* note 87, at 1.

89. See *supra* note 27 (noting support of FSB, Basel Committee, Goldman Sachs CEO Lloyd Blankfein, and others); see also Harry Wilson, Bonds Must Take Place of Bail Outs in Future, *Daily Telegraph* (London), Aug. 13, 2010, available at <http://www.telegraph.co.uk/finance/financialcrisis/7941485/Bonds-must-take-place-of-bank-bail-outs-in-future.html> (on file with the *Columbia Law Review*) (explaining AFME's support for contingent capital as most practical alternative); Squam Lake Working Grp. on Fin. Regulation, An Expedited Resolution Mechanism for Distressed Financial Firms: Regulatory Hybrid Securities 3 (Apr. 2009) (unpublished working paper), available at <http://www.cfr.org/economics/expedited-resolution-mechanism-distressed-financial-firms-regulatory-hybrid-securities/p19002> (on file with the *Columbia Law Review*) (expressing support for such a security).

90. See Wilson, *supra* note 89 (noting Lloyds Banking Group issued such a security in 2009 and that market already refers to this new type of security as "cocos" for "contingent

2010, Credit Suisse announced plans to issue as much as \$30 billion in contingent capital bonds, beginning in 2011, in order to comply with the stricter Swiss capital adequacy requirements for banks,⁹¹ and Barclays Capital has indicated an intent to issue contingent capital securities to its employees as a form of executive compensation.⁹²

Much of the academic discussion has assumed that mandatory conversion was a means of scaling back the issuer's debt, and has therefore focused on the incentives of the issuer to either manipulate the market or increase the firm's level of risk following the issuance of such a security.⁹³ Several papers have focused on the mechanics for specifying the conversion ratio and whether a single or a dual price trigger should be used,⁹⁴ while other commentators have worried about the absence of any clear equilibrium associated with the use of contingent capital.⁹⁵ These concerns are relevant to this Article only to the extent that contingent capital might invite market manipulation.⁹⁶

convertibles"). In 2010, Rabobank sold a 1.25 billion euro unsecured ten-year bond that would convert into equity if the bank lost \$15 billion of its roughly \$35 billion in equity. Peter Lee, Rabobank Brings Contingent to New-Issue Market, *Euromoney*, Apr. 2010, at 29. The interest rate on the bonds was 6.875% or 351 basis points above the yield on equivalent swaps. On this basis, the offering was easily oversubscribed. *Id.* For a further description of these offerings, see *infra* notes 99, 117, 119 and accompanying text.

91. See Baer & Guerrero, *supra* note 29 (noting Credit Suisse might issue as much as \$30 billion in such bonds over the next several years). For a description of the stricter Swiss rules on capital adequacy, see *supra* note 23.

92. Rob Cox, A Pay System That May Please, *N.Y. Times*, Dec. 6, 2010, at B2; see also Guerrero et al., *supra* note 29. The idea is intended to align managerial interests with those of creditors and regulators.

93. Pennacchi concludes that a moral hazard incentive does arise following the issuance of contingent capital to increase the firm's level of risk, but that it is less than that which arises on the issuance of subordinated debt. Pennacchi, *supra* note 88, at 28. To reduce the incentive to manipulate (by persons who might buy the contingent security and short the common stock), some have proposed more complicated designs under which the newly issued security can be repurchased. E.g., George Pennacchi et al., *Contingent Capital: The Case for COERCs 9* (INSEAD Faculty & Research, Working Paper No. 2010/89/FIN, 2010), available at <http://ssrn.com/abstract=1656994> (on file with the *Columbia Law Review*) (describing features of proposed "call option enhanced reverse convertible" bond). But see *infra* notes 128–129 and accompanying text (concluding contingent capital security, as proposed in this Article, would be less vulnerable to manipulation).

94. E.g., McDonald, *supra* note 87, at 2. McDonald favors a dual trigger which would convert the debt only when the firm's own stock price and a stock index price for similar financial institutions both declined to defined levels. He argues that if banks generally are not in distress, there is less reason to spare the individual bank from bankruptcy and that a dual trigger reduces the prospect of price manipulation. *Id.* at 4, 20. The dual trigger may indeed reduce the prospect of manipulation, but if we are focused on systematically significant financial institutions, the bankruptcy of even one could be catastrophic.

95. See Suresh Sundaresan & Zhenyu Wang, *Design of Contingent Capital with a Stock Price Trigger for Mandatory Conversion 6* (Fed. Reserve Bank of N.Y., Staff Report No. 448, 2010) (arguing contingent capital proposals do not usually lead to a "unique equilibrium" in equity or contingent capital prices).

96. Because, as proposed here, the debt security would convert into a preferred stock and not a common stock, its volatility would be far lower and thus the incentive to

Instead, the design advocated here seeks to protect the debt holder from loss on conversion and deliberately imposes the burden instead on the common shareholders. This potential wealth transfer is intended to deter the equity from approaching the trigger points at which conversion would occur—and thus to disincentivize shareholders at systemically significant financial institutions from tolerating excessive leverage.

To date, commentators have not focused at all on voting rights. This is understandable because if the debt security converts into common stock, the newly issued shares would predictably come to be owned by the same categories of institutional investors as already held that common stock.⁹⁷ Little would change. Voting rights are, however, a special attraction of using a nonconvertible preferred stock with a fixed return. The holders of such a fixed return security have interests naturally aligned with the debt holders and should vote in a manner consistent with the debt's interests to resist increases in risk. From this starting point, issues about conversion ratios, procedures, and pricing come into a sharper focus, and concerns about wealth transfers between bondholders and common shareholders can be more coherently addressed.

B. *Designing Contingent Capital*

In designing an equity security to underlie the issuer's bonds, both firms and regulators must recognize that they are offering a novel security to basically risk-averse debt investors. These debt investors may rationally fear that the new security locks them into a sinking ship (the banking industry's Titanic) or asks them to bear a loss to support the common stockholders. The more debt investors suspect such a purpose, the more they will resist contingent capital. Precisely to counter those fears, the design of the convertible security must minimize the likelihood of any wealth transfer from bondholders to common stockholders.⁹⁸ Conversely, it is both acceptable (and arguably desirable) if the reverse wealth transfer occurs from stockholders to the former bondholders, because this creates a disincentive for shareholders to increase the firm's risk level. Nonetheless, the idea that creditors should be spared is far from

manipulate should be much weaker. In addition, use of a dual price trigger (as proposed by McDonald, *supra* note 87) can eliminate the ability of the would-be manipulators to force a conversion. See *infra* notes 128–129 and accompanying text. The potential for manipulation may also be reduced if the trigger for mandatory conversion is set by the spread on credit default swaps, rather than stock price levels.

97. This is both because some debt investors (for example, money market funds) cannot legally hold common stock and, more generally, because the holders of debt securities tend to be risk averse (or at least want to maintain their prior portfolio balance and so, after conversion, will replace the former debt security that they held with a new debt security by selling the common stock that they receive).

98. Of course, the former bondholders will experience losses if their firm continues to decline after the time of conversion. The point here is only that they should not be asked to subsidize or share losses with the common shareholders through a conversion formula that writes down their claims.

universally accepted; indeed, in the first major transaction in which a contingent capital security was offered to investors, its terms provided for a severe writedown for the bondholders on conversion.⁹⁹

1. *The Conversion Formula.* — The simplest and most feasible conversion formula would be to convert the bonds into a similar principal amount of preferred stock. Thus, \$1,000,000 in principal amount of bonds would convert into 10,000 shares of preferred stock with a \$100 par value. This is an easy decision, because, in the case of preferred stock, the critical issue is how to adjust the dividend rate on the shares to hold the former bondholders harmless. Here, two possibilities can be reasonably debated. First, one could provide in the bond indenture a specific dividend rate on the preferred stock that would be sufficient to cause the preferred stock to trade at par in the market (at least as of the time of the bonds' original issuance). Thus, if the bonds were issued at, say, a 9% interest rate, it might follow that the dividend rate would be, hypothetically, 12% (or whatever rate would then permit the preferred stock to trade at par).

Alternatively, another possible procedure would be to appoint, in the bond indenture, an arbitrator or panel of arbitrators to specify the dividend rate at the time of conversion. The indenture would instruct the arbitrators to select the dividend rate that would enable a nonparticipating preferred stock issued by a company of a similar risk level to trade at par (subject possibly to some ceiling level). This alternative could provide a windfall to the bondholders (for example, if interest rates moved upward between the time of issuance of the bonds and their conversion), or it could even pay them less than the first alternative (if interest rates over the same time period fell). Still, it would assure the bondholders that their preferred stock would actually trade closer to par than under the first alternative, thereby reducing the prospect that the issuer could seek to force a conversion to exploit the bondholders.

Under either formula, the likely dividend rate on the preferred stock will be higher than the interest rate on the bonds. Thus, conversion will increase the servicing costs to the financially strained issuer. This should not concern us from a public policy perspective, because unpaid dividends cannot result in a default, but simply in the buildup of cumulative arrearages. Also, because the likely servicing cost to the issuer should

99. In the Rabobank issuance in 2010, which is discussed *supra* at note 90 and *infra* at notes 117 and 119, “investors [would] lose 75% of their money” on conversion. Louise Bowman, *Bank Capital and Regulation: Damned If You Do, Damned If You Don't*, *Euromoney*, June 2010, at 92, 95. The terms of the offering required redemption of the bonds at 25%. The Rabobank transaction appears to have been marketable largely because the bank had an AAA rating, and the risk of conversion seemed remote. *Id.* For more detail on the Rabobank issuance, see *supra* note 90 and accompanying text and *infra* notes 117, 119.

increase under either alternative, there is less reason to fear that the issuer will seek to manipulate its stock price to force a conversion.¹⁰⁰

2. *The Timing of Conversion.* — Possibly the most important design issue involves the choice of the trigger point or points at which conversion becomes mandatory. Should it await the twelfth hour when the financial institution's failure has become virtually inevitable? Or should intervention begin at an earlier point and involve a series of partial conversions of the contingent bonds (say, 25% at each of four thresholds)?

Those favoring a minimalist strategy will probably favor a delayed conversion that waits until the twelfth hour, because this approach reduces the prospect of any conversion occurring. Under such an approach, contingent capital is essentially substituting for a liquidation pursuant to the FDIC's resolution authority; the use of such a security would amount to the equivalent of a prepackaged bankruptcy. Still, there are reasons to prefer earlier and multiple conversions. First, if we wish to deter excessive risk taking, an early partial conversion seems preferable, precisely to create a stock market penalty that warns shareholders that high leverage can lead to painful dilution.

Second, from a political perspective, it makes sense to prefer multiple incremental conversions to a single major conversion. To reduce market shock, an incremental design might hypothetically convert 25% of the bonds on a 25% stock price decline from the stock price on the date of the bonds' issuance; another 25% might convert on a further 25% decline; and the balance would convert if the stock price fell 75% (or more) from the original price.¹⁰¹ Because the market's anticipatory reaction to each incremental conversion will be less dramatic than to the approach of a single 100% conversion, the prospect of a political nullification (such as by means of a regulatory waiver, legislative relief, or even shareholder amendment of the issuer's certificate of incorporation) seems less likely.

100. Conceivably, an attractive premium on conversion could create a corresponding incentive for price manipulation by bondholders. But this scenario seems less likely, and management could resist such manipulative efforts by causing their corporation to make stock purchases in the open market.

101. To illustrate the impact of such a conversion, assume that a financial institution has 100 million shares of common stock outstanding, which have long been trading at \$100 per share (for a total market equity capitalization of \$10 billion). It also has issued \$6 billion in contingent capital debt. Under financial stress, its stock price now declines to \$75 per share (or below) for a period sufficient to trigger conversion. As a result, \$2 billion of these bonds (which could be selected by lot, just as in the case of a bond sinking fund) would convert into 20 million shares of preferred stock, \$100 par value. This would be a significant, but not yet dominant, voting block. On a further decline in the financial institution's share price to \$50 per share or below, another 20 million shares of this preferred would be issued, with the balance of the contingent debt converting if the stock price fell to \$25 or below. Nothing would prevent the financial institution from selling additional common stock if it wishes to change the ratio between the preferred and common stock outstanding.

Use of the market price as a trigger supplies an objective measure that is less easily manipulated than accounting standards. Alternatively, a defined widening of credit default spreads on the issuer's debt may supply another potential objective measure.¹⁰²

Other additional triggers might be used. For example, a rating downgrade of the bonds by a major ratings agency to a level below investment grade might trigger a conversion of some percentage of the bonds (say, 50%). This would again penalize the shareholders more than the bondholders and disincline shareholders from pressuring their firm for increased risk or leverage after the issuance of the bonds. The problem with such a trigger, however, is that ratings downgrades to below investment grade may not occur until the very brink of bankruptcy.¹⁰³

Possibly the most important rationale for early and incremental conversion is to enable the new preferred shareholders to exercise influence on the corporate board as voting shareholders. If the new preferred shareholders are to be given voting rights in the hope that this will alter corporate governance at the issuer and/or affect managerial preferences, such an issuance cannot come at the twelfth hour if it is to work. Corporate governance changes take time, discussion, and negotiation. Nor is it reasonable to trigger the complete conversion of the debt security into preferred stock based only on a moderate stock price decline (which might occur for extrinsic reasons and later be reversed). Hence, a series of smaller conversions, beginning at an early point, seems preferable.

Others have suggested that conversion should be triggered by a regulator's decision that additional equity capital was needed.¹⁰⁴ However, this may place too much faith both in the issuer's accounting or in regulators. Market declines—in stock prices or credit default spreads—seem a more reliable measure of stress (although prudence suggests that the closing stock price should have to remain below the specified level for

102. There is, however, a complication with the use of credit default spreads. Because conversion will reduce the outstanding debt, credit default spreads would be meaningless in the case of the convertible security (as it cannot default). Moreover, the credit default spread on senior, nonconvertible classes of debt might tighten (or at least remain stable) as a mandatory conversion neared, because these assets are benefitted by the conversion (even if the firm's position has deteriorated). Conceivably, a credit default swap could still define conversion as a "credit event" that triggers a payoff to the holder of the credit default swap, but this would represent a windfall if the senior debt holders benefitted from the conversion. Nonetheless, in general, credit default spreads represent an alternative trigger to stock price decline, with either causing a mandatory conversion.

103. In the well-known example of Enron, its debt continued to be rated investment grade by the major rating agencies until just four days before its bankruptcy. John C. Coffee, Jr., *Gatekeepers: The Professions and Corporate Governance* 34 (2006); Claire Hill, *Regulating the Rating Agencies*, 82 *Wash. U. L.Q.* 43, 43 (2004).

104. E.g., Flannery, No Pain, *supra* note 87, at 182–87 (recommending tying conversion of debt security to decline in bank's equity ratio). In contrast, McDonald recommends against the use of accounting numbers in the trigger or conversion formulas (and this Article agrees). McDonald, *supra* note 87, at 1.

some brief period—say, three or more trading days—before the conversion trigger would be pulled).

3. *Voting Rights.* — A reasonable debate is equally possible over the nature of the voting rights that the preferred stock should carry. Often, preferred stock is issued on a basis under which it votes only if its dividend is missed. Yet, because the goal here is to create a voting counterweight to the risk-neutral stance of the common stockholders, voting rights should commence immediately on conversion, without waiting for a default on the preferred dividend as a precondition.

A related choice is how the preferred stock should vote: i.e., with the common as a single class, or, alternatively, as a separate class that would have the right to elect a specified number of directors (say, one quarter of the board). This latter provision would require classification of the board, which would usually require a charter amendment, unless the corporation had a “blank check” preferred stock provision in its certificate of incorporation.¹⁰⁵ Allowing both the common and preferred classes to vote as a single class has the virtue of simplicity and is less likely to produce a factionalized board of directors.

If a more potent remedy is desired, the preferred could be given multiple votes per share. The case for such a “super-voting” provision is strongest when the initial conversion would likely result in a class of preferred with only modest voting power (say, 10% or less). Again, such a super-voting provision would have to be authorized by the certificate of incorporation (or by a “blank check” preferred provision authorizing the board to set the terms of the voting rights).

Although the preferred shareholders would be entitled to cumulative arrearages, such arrearages are vulnerable and can be eliminated through mergers and other well-known techniques.¹⁰⁶ Thus, to protect this right to cumulative dividends, it would be appropriate to give the preferred an additional voting right: the right to elect as a class some additional percentage of the directors each year that their dividend is omitted. The right to such class voting would end once the arrearages were fully paid. On this basis, control of the corporation might pass to

105. Many public corporations may have sufficiently broad “blank check” preferred stock clauses in their corporate certificates of incorporation that they could accommodate such a class voting system without amendment of the certificate. Under the law of most major jurisdictions of incorporation, such a provision may permissibly authorize the board of directors to set the terms, including the dividend rate, voting rights, and other features of new classes of preferred issued from time to time. See Del. Code Ann. tit. 8, § 151(g) (2001); N.Y. Bus. Corp. Law §§ 402(a)(6), 502(c) (McKinney 2003). These provisions have only been successfully challenged when used to create a class of stock that precludes a hostile takeover. See *Unilever Acquisition Corp. v. Richardson-Vicks, Inc.*, 618 F. Supp. 407, 408–10 (S.D.N.Y. 1985) (enjoining “blank check” preferred class that had 25 votes per share).

106. For example, cumulative arrearages can be easily eliminated through a merger with the corporation’s wholly owned subsidiary. E.g., *Fed. United Corp. v. Havender*, 11 A.2d 331 (Del. 1940); *McNulty v. W. & J. Sloane*, 54 N.Y.S.2d 253 (Sup. Ct. 1945).

the preferred shareholders within two or three years if the arrearages were not eliminated.

Finally, the contingent capital would have to be issued by the parent holding company, not by the banking subsidiary, as voting rights would have little meaning at a controlled subsidiary.

4. *Amount to Be Issued.* — How much contingent capital should a systematically significant financial institution be required to issue? The prudent answer to this question has to be determined not by reference to the institution's long-term liabilities (e.g., other bonds and notes), but in terms of its short-term liabilities (e.g., repos and other short-term borrowings, including guarantees that are off the balance sheet).¹⁰⁷ A primary purpose of contingent capital is to prevent panic and dissuade these short-term creditors from refusing to roll over their debt obligations because of a fear of insolvency. Thus, the principal amount of the contingent capital that will convert must be sufficient to alleviate those concerns. In practical terms, one implication of this point is that federal regulators may need to negotiate the required amount of contingent capital, either on a case-by-case basis or through regulations that require the amount of contingent capital to be issued to equal or exceed some percentage of short-term debt.

Some may feel that a very large issuance of preferred stock would give the financial institution a "top heavy" capital structure. This is debatable, because nonpayment of a preferred stock dividend can never cause default or insolvency. Still, an incremental conversion design avoids any "day to night" change in capital structure and gives the financial institution the opportunity to issue additional common stock. Finally, if it were generally perceived as undesirable for the number of preferred shares outstanding to exceed the number of common shares, then, under the earlier proposed design, under which conversions would occur after 25%, 50%, and 75% stock drops, the final conversion could be to common stock.

One inevitable limitation on contingent capital must be acknowledged: Ultimately, it cannot prevent economic failure. Interest and amortization on bonds are fixed costs, which do not affect the decision whether to continue the firm in business. That decision is only rationally based on the firm's ability to recover its variable costs. If a firm's variable costs clearly exceed its revenues, and no turnaround is in sight, the firm will not be saved by converting its bonds into preferred stock. At such a point, resolution authority provides the superior mechanism for its liquidation. Thus, the boundaries within which contingent capital can feasibly work are set by the firm's ability to recover its variable costs.

107. "Short-term liabilities," as used here, would not include depositors, who arguably are less likely to panic because of the presence of FDIC deposit insurance, but would include repos and the debt issued by SIVs.

C. *Potential Objections and Implementation Concerns*

Some objections are foreseeable, and some uncertainties clearly exist. These are briefly discussed below.

1. *If the Goal Is to Avert Bankruptcy, Why Not Just Require More Common Stock to Be Issued?* — Skeptics have argued that it is simpler to mandate higher capital reserves than to use contingent capital.¹⁰⁸ They have suggested that issuers resist equity issuances because common stock is perceived by the industry as “too expensive.” But avoidance of bankruptcy is not the only goal; another goal is to reduce shareholder pressure on management for acceptance of greater risk. Even if avoidance of bankruptcy were the only goal, the sale of equity securities by a financially distressed issuer can be extremely difficult and may be feasible only at extreme discounts. These expected discounts may deter management from making stock issuances that would be in the interest of the taxpaying public, which bears the cost of bailouts. Finally, even if these critics are correct, their argument acknowledges that the industry will resist mandatory issuances of common stock. Given that resistance, use of a convertible preferred may encounter less resistance.

2. *If the Goal Is to Give Voting Rights to Creditors, Why Not Just Authorize Bondholders to Vote?* — Actually, the corporate law of most jurisdictions does not authorize voting by bondholders to elect the board of directors. Delaware, which permits the certificate of incorporation to authorize voting by bondholders, is the leading exception.¹⁰⁹ But the policy goal here is both to avoid default and bankruptcy as well as to create a new voting constituency. Those goals could not be fully realized if we simply gave bondholders voting rights to elect directors in limited circumstances (for example, based on ratings downgrades to below investment grade or other financial tests). Although such a voting power might reduce stockholder pressure, the prospect of default and a destabilizing bankruptcy would remain if the bonds did not convert into equity. Contingent capital thus achieves two objectives at once: (1) avoidance of default, and (2) alteration of voting power to give creditors a voice in corporate governance. In addition, limiting the voting rights to the preferred stock effectively restricts the creditors’ voice to times when the corporation is in financial distress. This minimizes the natural conflict between bondholders and shareholders over issues of risk and uses the preferred stock as a late-stage failsafe device.

108. E.g., Admati et al., *supra* note 9, at 5–6.

109. Section 221 (“Voting, Inspection and Other Rights of Bondholders and Debenture Holders”) authorizes certificate of incorporation provisions permitting bondholders to vote. Del. Code Ann. tit. 8, § 221 (2001). Few other jurisdictions follow Delaware in this regard.

In general, corporate law scholars have assumed that only shareholders should vote because they are the residual claimants on the firm.¹¹⁰ But as the corporation becomes insolvent, the board of directors' fiduciary obligation shifts from shareholders to creditors.¹¹¹ Chancellor Allen of the Delaware Chancery Court thus once famously suggested that in the "vicinity of insolvency, a board of directors is not merely the agent of the residual risk bearers, but owes its duty to the corporate enterprise."¹¹² Although Delaware has not pursued this idea (and indeed may have backed off of it),¹¹³ the "vicinity of insolvency" context remains highly problematic because shareholders do have rational incentives to accept very high risk at this stage. Instead of an "all or nothing" rule that switches the board's fiduciary duty from shareholders to creditors at an imprecisely defined moment, the foregoing proposal designs a compromise mechanism that provides a voice to creditors once in that "vicinity," but still leads to fewer legal uncertainties.

3. *Will Tax Law Recognize Contingent Capital as Debt When It May Be Converted to Equity?* — The short answer is yes, if some constraints are observed. Although the Internal Revenue Code eyes suspiciously debt instruments that have an "equity flavor,"¹¹⁴ the key point here is that, as of

110. See, e.g., Frank H. Easterbrook & Daniel R. Fischel, *Voting in Corporate Law*, 26 J.L. & Econ. 395, 403–04 (1983) ("As the residual claimants, the shareholders are the group with the appropriate incentives . . . to make discretionary decisions.").

111. *Geyer v. Ingersoll Publ'ns Co.*, 621 A.2d 784, 790 (Del. Ch. 1992); *Credit Lyonnais Bank Nederland, N.V. v. Pathe Commc'ns Corp.*, Civ. A. No. 12150, 1991 WL 277613, at *34 (Del. Ch. Dec. 30, 1991); accord *FDIC v. Sea Pines Co.*, 692 F.2d 973, 976–77 (4th Cir. 1982); *Clarkson Co. v. Shaheen*, 660 F.2d 506, 512 (2d Cir. 1981). For an overview, see Rutherford B. Campbell, Jr. & Christopher W. Frost, *Managers' Fiduciary Duties in Financially Distressed Corporations: Chaos in Delaware (and Elsewhere)*, 32 J. Corp. L. 491, 500–06 (2007); Laura Lin, *Shift of Fiduciary Duty upon Corporate Insolvency: Proper Scope of Directors' Duty to Creditors*, 46 Vand. L. Rev. 1485, 1510–23 (1993).

112. *Credit Lyonnais Bank Nederland, N.V.*, 1991 WL 277613, at *34.

113. See *N. Am. Catholic Educ. Programming Found., Inc. v. Gheewalla*, 930 A.2d 92, 101 (Del. 2007) (rejecting claim for breach of fiduciary duty to creditor while corporation was "operating in the zone of insolvency").

114. New financial products have placed the distinction between debt and equity under increasing strain. The Internal Revenue Service responded to this problem in Notice 94-47, which advised that the Service will "scrutinize" instruments that are designed to be treated as debt for tax purposes but as equity for regulatory purposes. I.R.S. Notice 94-47, 1994-1 C.B. 357. At present, contingent capital does not count as Tier 1 equity for bank regulatory purposes (although banks would certainly want it to so qualify). The IRS further warned in Notice 94-47 that instruments that are characterized as notes, "but that, on balance, are more equity-like are unlikely to qualify as debt for federal income tax purposes." *Id.* That Notice listed those factors that the IRS considers suspicious, including "whether the rights of the holders of the instruments are subordinate to rights of general creditors" and "whether the instruments give the holders the right to participate in the management of the issuer." *Id.* In truth, contingent capital can have these outcomes—but only once a conversion is triggered. For a recent review of the IRS's positions in this area, see Grace Soyoon Lee, *What's in a Name?: The Role of Danielson in the Taxation of Credit Card Securitizations*, 62 Baylor L. Rev. 110, 126–28 (2010).

the bonds' issuance, neither the issuer nor the shareholders want the mandatory conversion to be triggered. Such a trigger comes into play only when there is a substantial *decrease* in the price of the common stock (or a similar increase in credit default swap spreads), and thus contingent capital is very different from a subordinated convertible debenture (which will be converted to common stock when there is an *increase* in the stock price). Moreover, in many of the instances in which the Internal Revenue Service (IRS) believes that debt should be recharacterized as equity, it is relying on the factor that "there is identity between holders of the instruments and stockholders of the issuer."¹¹⁵ That is not the case with respect to contingent capital, where the purchasers of contingent capital securities would be traditional debt investors.

The bottom line is that even if some less-than-careful attempts to issue contingent capital could raise issues under the Internal Revenue Code, more prudent tax planning can assure that bonds that are contingently convertible into senior preferred stock will still be considered debt during the period prior to any such conversion. Probably, the factor that will receive the greatest attention from the IRS is the term of the debt security. The shorter the term, the more likely that the IRS will accept a debt characterization (as the prospect of conversion is reduced). Suppose then that a ten-year term is used. On maturity, the issuer can be required to replace the old issuance of contingent capital with a new issuance. Such a cycle of reissuances should satisfy the formalism of tax law.

4. *Will Investors Buy Contingent Capital?* — Some have expressed doubt that contingent capital can be sold to wary investors.¹¹⁶ Still, since the 2008 crisis, several offerings of contingent capital have been successfully completed,¹¹⁷ and Credit Suisse has announced its intention to mar-

115. I.R.S. Notice 94-47, 1994-1 C.B. 357 (listing this as sixth of eight factors); see also *Monon R.R. v. Comm'r*, 55 T.C. 345, 359-62 (1970) (holding 6% income debentures issued by railway to retire Class A stock "are in substance debt," despite fifty-year term and condition that interest was payable only out of available net income), acq., 1973-2 C.B. 3. The key features that led the Service to challenge (unsuccessfully) the debt character of the financial instrument in *Monon Railroad* was the fifty-year term of the bonds and the fact that interest was payable only out of earnings. Few debt securities issued by publicly held financial institutions are likely to approach this term or to have such an "income" precondition to the payment of interest.

116. See, e.g., Sara Schaefer Muñoz, *A Hard Road for 'Coco' Debt*, *Wall St. J.*, Oct. 15, 2010, at C3 (noting "U.K. banks and investors . . . remain wary" about purchasing contingent capital instruments); Philip Aldrick, *'Cocos' Could Destabilize Recovery*, *ABI Warns*, *Daily Telegraph* (London), Jan. 12, 2011, at <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/8253553/Cocos-could-destabilise-recovery-ABI-warns.html> (on file with the *Columbia Law Review*) (warning institutions have a "limited appetite" for contingent capital); see also *Who Will Buy CoCos?*, *supra* note 29 (discussing S&P report expressing doubts as to marketability of contingent capital). These doubts as to marketability were, however, expressed about bonds that convert into common stock, not bonds that will receive a higher fixed return as preferred stock after conversion (as proposed here).

117. The two most noteworthy offerings were by Lloyds Bank and Rabobank in 2010. *Bowman*, *supra* note 99, at 92, 94; *Rabo Sets Tongues Wagging with SCN Issue*, *EuroWeek*,

ket a series of such offerings.¹¹⁸ Although these transactions show that such offerings can be done,¹¹⁹ they hardly demonstrate that investors have definitively accepted this new product.

Three factors have chilled investors' enthusiasm to date. First, the ratings agencies have been unwilling to give an investment grade rating to, and reluctant even to rate, a debt security that may convert into an equity security.¹²⁰ Second, investors could read an individual financial institution's decision to issue contingent capital as a signal that it had private knowledge that it was approaching the "vicinity of insolvency." Third, some fixed income investors are simply not legally permitted to hold common shares.

None of these obstacles, however, should prove fatal to contingent capital's use. Rating agency reluctance to rate contingent capital securi-

Mar. 19, 2010 [hereinafter EuroWeek, Rabo]. These two transactions used similar formulas to trigger conversion. In Lloyds' case, the conversion would be triggered when its core tier one capital fell below 5%, while in the Rabobank offering, the conversion trigger would be pulled if the bank's equity ratio fell below 7%. Bowman, supra note 99, at 95. Nevertheless, both tests relied on regulatory requirements and accounting measurements, not the more objective test of a stock price decline recommended here. Investors expressed concern that such regulatory triggers were uncertain in their impact because the formulas used to compute ratios and tier one capital could change over time.

Overall, it appears that \$6 billion in "reverse convertible" bonds were issued by banks in 2010. See Faux, supra note 29. Although investors appear to have initially lost money on these bonds when stock prices rose, id., this means only that a higher return may need to be paid in future offerings.

118. See supra note 91 and accompanying text.

119. It is also noteworthy that the Lloyds Bank and Rabobank offerings involved very different issuers in terms of creditworthiness. In the Lloyds transaction, the contingent bonds were issued in exchange for existing bonds that Lloyds was unlikely to be able to repay. Hence, the existing bondholders had a stark choice: accept the exchange or expect default. In contrast, Rabobank had a triple-A rating, and observers report that Rabobank was able to market the deal with relative ease because investors saw little prospect that the trigger would ever be pulled. Bowman, supra note 99, at 94.

The contingent bonds marketed by Rabobank provided that if Rabobank's equity ratio fell below 7%, the senior bondholders would "automatically take a 75% write-down." EuroWeek, Rabo, supra note 117. This implies an immediate gain for the equity when (and if) this trigger is pulled. Although that prospect was deemed very remote in the Rabobank offering, this seems exactly the wrong formula to use and one that may encourage opportunistic behavior by management.

120. Moody's, for example, refused even to rate the Rabobank deal, stating: "We have opted not to rate newly issued contingent capital securities with regulatory capital triggers for the time being." EuroWeek, Rabo, supra note 117. Despite the lack of any rating, the deal received a "strong response" and was fully sold out, according to Morgan Stanley, the placement agent for the deal. Fitch, however, has recently indicated its willingness to rate contingent capital. See EuroWeek, High Hopes, supra note 23 (reporting Fitch's announcement it would rate contingent capital and describing its methodology for doing so). Standard & Poor's has also published a report predicting that \$1 trillion in contingent convertible debt will be issued by banks within the next five to ten years, suggesting that it sees this new asset class as viable. See supra note 29 and accompanying text.

ties appears to be a transitional problem.¹²¹ In all likelihood, if such capital were mandated by regulators (as the Swiss have already done), it would appear less novel or suspicious to investors and ratings agencies. Also, the legal need for institutions to receive investment grade ratings from ratings agencies as a precondition to debt purchases has been largely curtailed by the Dodd-Frank Act, which deleted most federal statutory references requiring such ratings.¹²² Investor fears about private knowledge on the part of the issuer would also be reduced if the issuer had little choice because of regulatory requirements. In that case, the issuer's decision to issue contingent capital would not resemble a market signal. Next, even if some investors cannot hold common shares, they can sell their contingent bonds prior to their conversion. This supplies an additional reason why the pricing formula should not require any writedown at the time of conversion, in order to make it easier for such bonds to trade smoothly.

Finally, and most importantly, investors who cannot hold common stock (either for legal or economic reasons) may be both able and more willing to hold a nonconvertible, cumulative preferred stock. Indeed, because of institutional style and risk preferences, such investors may much prefer to hold a senior preferred stock, rather than a common stock, if their bonds must be converted. The fear of many investors is likely to be that they will be converted into the common stock of a sinking ship—i.e., a financial Titanic that has already hit the iceberg. But this fear is at least mitigated if the conversion is not to equity (and hence the bottom of the ladder in bankruptcy) but to an intermediate senior security that would actually pay a higher fixed return than the bonds that are converted. For this reason alone, the conversion should be to a senior security to facilitate the sale of the original bonds.

Of course, some institutional investors may still insist on investment grade ratings, either because they do rely on the ratings agencies or because their boards are concerned about their potential liability under common law fiduciary standards, which require them to meet the standards of a “prudent man.” But in an increasingly competitive ratings marketplace, ratings agencies are unlikely to turn down opportunities to rate debt securities, particularly if contingent convertibles become a

121. Fitch's announcement that it would rate contingent capital seems important evidence of this transition. See *supra* note 120. Similarly, Standard & Poor's prediction of very large contingent capital issuances in the near future suggests which way it sees the wind to be blowing. See *supra* note 29 and accompanying text.

122. Section 939 (“Removal of Statutory References to Credit Ratings”) of the Dodd-Frank Act strikes references requiring specified credit ratings from several federal statutes, including the Investment Company Act of 1940, the Federal Deposit Insurance Act, and the Securities Exchange Act. Dodd-Frank Act, Pub. L. No. 111-203, § 939, 124 Stat. 1376, 1885–87 (2010) (amending various sections of 12 U.S.C. and 15 U.S.C.). Nonetheless, most institutional investors will predictably want investment grade ratings, both because they are risk averse and because they will want to protect their directors or trustees from liability for breach of their fiduciary duties as prudent trustees.

more prevalent asset class. Particularly when the convertible security will receive an improved rate of return on conversion (as proposed here), rating agencies may accept that this protection allows them to consider such a security “investment grade” (albeit at a low level).

5. *How Will the Market Respond to a Debenture Convertible into Preferred Stock?* — Convertible debt is a well-recognized security that over the last thirty years has constituted approximately 10% of total securities issuances by all U.S. corporations.¹²³ Typically, convertible debt offers the investor a two-way play: a straight debt security plus an option feature that offers equity appreciation through conversion. This Article’s proposal, in contrast, does not include this option-like element, as the debt converts only into a fixed return preferred stock (which offers little hope of equity appreciation) and conversion is not at the option of the holder. In all likelihood, this means that a major class of the investors who buy convertible securities—arbitrage and hedge funds—will not be interested in such a security. Still, although arbitrage funds began to dominate the convertible debt market in the 1990s,¹²⁴ their participation has fallen in this sector since the 2008 crisis (as their ability to hedge has been constrained).¹²⁵ At the same time, during the financial crisis, many cash- and credit-constrained firms apparently found issuing convertibles to “have been the only option.”¹²⁶ Thus, since 2008, convertible securities have been primarily issued by financially strained companies to longer-term investors who were not seeking to arbitrage.¹²⁷ On this basis, contingent convertible securities may be attractive to many traditional debt investors because they offer the higher debt return of subordinated debt plus an even higher dividend return following any conversion.

Even if the demand side would be willing to buy a security that converted into a fixed return preferred stock, the supply side (i.e., issuers) may have a different view. Issuers know that preferred stock is not tax advantaged, because they cannot deduct their dividend payments on such a security from their revenues (as they can in the case of a debt security). Normally, this might be a serious disincentive to its use. But a “contingent capital” security converts only when the firm is in distress. At this point, the interest deduction is likely to be less important because the

123. Eric Duca et al., *Why Are Convertible Bond Announcements Associated with Increasingly Negative Abnormal Stock Returns? An Arbitrage-Based Explanation I* (Sept. 13, 2010) (unpublished manuscript), available at <http://ssrn.com/abstract=1681392> (on file with the *Columbia Law Review*).

124. See Darwin Choi et al., *Convertible Bond Arbitrage, Liquidity Externalities, and Stock Prices*, 91 *J. Fin. Econ.* 227, 227 (2009) (noting “widespread belief among Wall Street practitioners . . . that convertible bond arbitrage hedge funds purchase 70% to 80% of the convertible debt offered in primary markets”). These investors typically buy the underpriced convertible security and short the common stock—a hedging strategy unlikely to work where the preferred stock has little potential for upside appreciation.

125. Duca et al., *supra* note 123, at 3.

126. *Id.* at 4.

127. *Id.* at 3.

firm is typically in a loss position (and thus cannot easily use the tax deduction). Moreover, at this point, the fact that the nonpayment of the dividend does not create a default is likely to be reassuring to the firm's management. Hence, although uncertainty remains, it is plausible that both the demand and the supply side would see such a security as attractive, even in the absence of any potential for equity appreciation.

Finally, if financial regulators require it, and large financial issuers must sell it, underwriters can be counted on to make a virtue out of necessity and market it vigorously.

6. *Would Management Resist Contingent Capital?* — Corporate managers are not known for welcoming ideas conceived by academics and imposed by regulators. Still, hostility to contingent capital should not be assumed. Outside the United States, some banks have already issued such securities, and others are likely to do so soon. But, more importantly, if a CEO of a major financial institution were faced with a proxy challenge (presumably pursuant to new SEC Rule 14a-11) led by activist shareholders seeking representation on his board, this CEO might find much to like about the idea of a significant voting block of preferred shareholders, whose rational incentive would be to resist increased risk.

7. *Can Conversion Be Called Off?* — As earlier discussed, a key problem with resolution authority is that regulators may fear the political repercussions of placing a major financial institution into liquidation. Correspondingly, a potential problem with contingent capital is that an approaching conversion might be postponed or even cancelled. This could occur either if the issuer could redeem or amend the bonds (possibly by means of a waiver provision permitting a delay in their conversion that was set forth in the bond indenture) or if it could conduct a debt tender offer that exchanged new, nonconvertible debt securities at a premium for the outstanding debt securities. An issuer might justify such a tactic on the grounds that extrinsic market developments had caused its stock price to decline and conversion would severely dilute its stockholders.

Such a scenario makes the case for an incremental conversion design. If conversion occurs on a piecemeal basis (say, 25% at each point in a series of stock price declines), then the issuer's management will have less reason to seek to cancel or delay the conversion feature. Nonetheless, a "contingent capital standard" (as it might be adopted by the FRB) should preclude post-issuance amendments or delays. To the extent that extrinsic market developments may trigger conversion, this problem is better addressed through a dual price trigger that requires an industry stock index to decline relative to the market as a whole before conversion is triggered.

Managers might also wish to make the preferred stock issued on conversion redeemable (in order to maximize their flexibility), but here again a conflict arises between their preferences and the desire of regulators to avoid sudden increases in leverage. As proposed here, the cumu-

lative preferred should not be redeemable. Of course, an issuer can repurchase stock in the market or tender for it, but such a major attempt to alter its balance sheet should come within the jurisdiction of the appropriate bank regulatory agency. As a guideline, if the major ratings agencies would not reduce their ratings on the issuer's debt as a result of such a repurchase of the preferred stock, then such repurchases seem acceptable.

8. *Can Contingent Capital Be Manipulated?* — Concern has been expressed that at least some designs for contingent capital may have multiple equilibria and that this indeterminacy facilitates market manipulation.¹²⁸ One such scenario might be that arbitrageurs collude to drive the market price of the common stock below the trigger price at which conversion becomes mandatory. Depending on the facts, this could either benefit the holders of the contingent capital security (if the common stock were to be significantly diluted and the conversion was at an unduly discounted price) or the common stock holders (if the contingent capital were converted to common stock at a price that was below the market value of the debt security).

Two brief responses to this market manipulation scenario should be sufficient. First, if the contingent capital employed a dual price trigger, manipulation becomes an exceedingly remote possibility. Under a dual price trigger, conversion would occur only if (1) the company's own stock price fell the requisite percentage, and (2) a stock index of similar financial institutions declined in relation to the general stock market by a defined percentage. While it may be possible to force the price of a single company down sufficiently to trigger conversion, it is a far more forbidding challenge to manipulate the stock price level of the entire financial industry.¹²⁹

Second, even if market manipulation might be a rational strategy for arbitrageurs in the case of a debt security that converted into common stock, there would be far less incentive to attempt manipulation when the debt security converted into a preferred stock. The common stock might be volatile, and the arbitrageurs might hope that it would rebound in value after the price decline and conversion that they caused. But such a rebound is far less likely in the case of a senior security, which should stay reasonably aligned in value with the debt security.

128. See generally Sundaresan & Wang, *supra* note 95. Sundaresan and Wang focus only on a debt security that converts into common stock (and not into a senior security). See *id.* at 4. Some of their discussion also contemplates that conversion is at the option of the debt holder.

129. Some commentators doubt that any manipulation can be maintained for any sustained period in an efficient market. See Daniel R. Fischel & David J. Ross, *Should the Law Prohibit "Manipulation" in Financial Markets?*, 105 Harv. L. Rev. 503, 512–19 (1991). A manipulation campaign among colluding arbitrageurs that would be strong enough to cause a large financial institution's stock price to fall 25% or more (and remain at that level for several days to trigger conversion) seems particularly implausible.

The bottom line then is that the possibility of market manipulation can be easily dealt with. Although some price indeterminacy might be associated with contingent capital, that prospect also largely fades when the debt security converts only into a preferred stock with a relatively similar return.

9. *Are There Any Legal Preconditions to the Issuance of Contingent Capital?* — As noted above, the issuer's certificate of incorporation must authorize any class of stock and define its rights. But this authorization can be implicit, as "blank check" preferred provisions are authorized by most corporation statutes and delegate to the board the actual determination of the rights, including voting and dividend rights, of any new class.¹³⁰ Such provisions are extremely common today.¹³¹ Still, in the unusual case where no such provision exists, an amendment to the certification of incorporation would be necessary, and this in turn raises the question: Would shareholders approve such a provision?

The most likely answer is that shareholders could be given little choice. Bank regulators can simply require a large financial institution to opt between raising significant equity capital by a public offering or issuing debt with contingent capital provisions. Because the public offering of common stock would be more dilutive (and in times of economic stress might significantly reduce the stock's market price), shareholders should logically prefer the contingent capital option. But this answer still leaves open whether regulators have the determination to force such a choice on systemically significant financial institutions.

D. *Regulatory Authority: How Should Regulators Implement Contingent Capital?*

Regulatory authority to require contingent capital is the one issue on which little doubt exists. The Dodd-Frank Act clearly authorizes financial regulators to impose "a contingent capital requirement" on both "non-bank financial companies supervised by the Board of Governors" and certain "bank holding companies."¹³² Under section 165(b)(1)(A) of the

130. See *supra* note 105 and accompanying text.

131. In a recent study of initial public offerings (or IPOs), Professor John Coates found that 86% of the IPOs in his survey had charters authorizing "blank check" preferred. See John B. Coates, *Explaining Variation in Takeover Defenses: Blame the Lawyers*, 89 *Calif. L. Rev.* 1301, 1357 (2001). Similarly, Professors Daines and Klausner of Stanford report that "blank check" preferred was authorized in 95% of IPOs between 1994 and 1997. See Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value? Antitakeover Protection in IPOs*, 17 *J.L. Econ. & Org.* 83, 96 tbl.2 (2001). Although these surveys are of recent IPOs, Professor Coates also notes that Investor Responsibility Research Center (IRRC) data, as of December 31, 1998, showed that "more than 90% of public companies have adopted charter provisions giving boards 'blank check' authority to issue preferred stock as needed without further shareholder approval." Coates, *supra*, at 1398.

132. Dodd-Frank Act, Pub. L. No. 111-203, § 165(b)(1)(B), 124 Stat. 1376, 1424 (to be codified at 12 U.S.C. § 5365). This is a permissive power, which authorizes the Board of

Dodd-Frank Act, the Board of Governors of the Federal Reserve is directed to adopt certain mandatory “prudential standards” dealing with specified topics,¹³³ and then under section 165(b)(1)(B), it is permitted to specify certain “additional standards,” including with respect to “a contingent capital requirement.”¹³⁴ Following the completion of a study of contingent capital by the FSOC,¹³⁵ the Board of Governors is further authorized by section 165(c) (“Contingent Capital”) of the Dodd-Frank Act to issue “regulations that require each nonbank financial company supervised by the Board of Governors and bank holding companies [with total assets over \$50 billion] to maintain a minimum amount of contingent capital that is convertible to equity in times of financial stress.”¹³⁶ Various factors are specified that must be considered in adopting these regulations, including any recommendations made by the FSOC.¹³⁷ In short, Dodd-Frank Act makes contingent capital an option and not a mandate, but it discusses it repeatedly.

In all likelihood, the Federal Reserve will not take any dispositive action until Congress receives the FSOC’s report in 2012. In the meantime, the financial industry will consider its position. For the industry, an important question will likely be whether contingent capital can qualify as Tier One capital that counts against the Basel III minimum standards for major banks. An obvious alternative position would be to follow the Swiss approach and require contingent capital to supplement

Governors of the Federal Reserve to establish a “prudential standard” with regard to contingent capital, but does not impose a mandatory requirement. In the case of bank holding companies, the institution must have total consolidated assets “equal to or greater than \$50,000,000,000.” *Id.* § 165(a)(1). In the case of “nonbank financial companies,” the Federal Reserve must have first determined to exercise supervision over the institution because of its potential systemic significance. Obviously, the Federal Reserve will do this only in a few cases.

133. For example, section 165(b)(1)(A) expressly lists “liquidity requirements,” “overall risk management requirements,” “resolution plan and credit exposure report requirements,” and “concentration limits.” *Id.* § 165(b)(1)(A) (to be codified at 12 U.S.C. § 5365).

134. Other topics that the Board of Governors could similarly subject to an “additional prudential standard[]” include “enhanced public disclosures” and “short-term debt limits.” *Id.* § 165(b)(1)(B) (to be codified at 12 U.S.C. § 5365).

135. Under section 115(c), the FSOC is instructed to conduct and submit a report to Congress on the “feasibility, benefits, costs, and structure of a contingent capital requirement.” This report is to be submitted not later than two years after the Dodd-Frank Act’s date of enactment—or July 21, 2012 (as Dodd-Frank Act’s date of enactment was July 21, 2010). *Id.* § 115(c)(1)–(2) (to be codified at 12 U.S.C. § 5325). Based on this report, the FSOC may make a recommendation to the Federal Reserve Board as to the “minimum amount of contingent capital” that should be maintained. *Id.* § 115(c)(3) (to be codified at 12 U.S.C. § 5325).

136. *Id.* § 165(c)(1) (to be codified at 12 U.S.C. § 5365). On the face of the statute, the FSOC’s report does not control the Federal Reserve’s discretion, but its completion and submission to Congress are procedural prerequisites under section 165(c).

137. *Id.* § 165(c)(2) (to be codified at 12 U.S.C. § 5365). The first factor so listed is “the results of the study undertaken by the [FSOC] and any recommendations made by the [FSOC].” *Id.*

the minimum required equity under Basel III.¹³⁸ To be sure, Switzerland is distinctive in that it, possibly alone, faces the prospect of banks that are “too big to be saved.”¹³⁹ But counting contingent capital as Tier One capital might allow banks to operate with a 100:1 debt-to-equity ratio.

What compromise makes sense? From this Article’s perspective, the appropriate minimum level for contingent capital should be determined with reference to the financial institution’s short-term liabilities, because a recurrent cause of collapse at financial institutions has been that short-term lenders suddenly back away as they sense a possible failure (which is how they behaved in the cases of Lehman and Bear Stearns).¹⁴⁰ The goal must be to assure these creditors that conversion protects them from the risk of default. Thus, rather than follow the Swiss approach, which adds across the board a mandatory 9% second tier of contingent capital on top of Tier One capital, the amount of contingent capital required might properly vary with the level of the company’s short-term liabilities (computed on an average outstanding basis). That should reduce the potential for panic.

The most important issues relating to the use of contingent capital involve whether it should be used proactively to deter excessive risk-taking or only as a twelfth hour substitute for bankruptcy and liquidation. Opting for the former approach, this Article has advocated the use of an early trigger and partial, incremental conversions to a senior security. The financial industry, however, will likely prefer a delayed trigger so that the debt only converts on the doorsteps of bankruptcy. From the industry’s perspective, if bankruptcy is inevitable, contingent capital simply implements a close equivalent to a prepackaged bankruptcy, but does not otherwise interfere with issuers’ operations (and also gives them the tax advantages of debt capital). This Article has two objections to such a minimalist use of contingent capital. First, a single all-or-nothing conversion will likely produce pressure for delay and modification (much as “orderly liquidation” pursuant to resolution authority will also be resisted). Second, delaying conversion until the twelfth hour abandons the possibility of deterring risk taking through an earlier trigger.

Nonetheless, at this point, politics rears its ugly head. Even if the attitude of the still-embryonic FSOC on this issue cannot be anticipated, the Federal Reserve has shown a marked tendency to align itself with the industry’s perspective and preferences.¹⁴¹ Similarly, the use of a voting

138. Under the Swiss rules, a major bank must have Tier One capital equal to 10% of its risk-adjusted assets (whereas Basel III requires only 7%), and must issue an additional 9% in contingent capital. First Mover, *supra* note 23.

139. See *supra* note 23.

140. See Gorton, *Invisible Hand*, *supra* note 65, at 15–23 (detailing history of banking panics).

141. The Federal Reserve is often described as autonomous, technocratic, nonpartisan, somewhat elitist in style, and politically unaccountable. Commentators from Congressman Ron Paul on the right to Senator Bernard Sanders on the left regularly echo this theme of its alleged lack of accountability. For representative critiques, see generally

preferred stock may be too novel an idea for the traditionalist Federal Reserve. In short, the danger is that the potential of contingent capital will not be seriously considered, as the industry and regulators quietly agree to treat it only as a substitute for an insolvency reorganization. If nothing more is done than to authorize a twelfth-hour conversion of debt to equity, that minimalist response will both evidence the subservience of the Federal Reserve to the financial industry and forfeit a promising opportunity to reduce the potential for a systemic risk crisis. Time will tell.

In one last, important respect, the implementation of contingent capital should move beyond the Dodd-Frank Act's contemplated use of it. As the Dodd-Frank Act recognizes, clearinghouses need to play a central role in the over-the-counter derivatives markets if a future AIG-like failure is to be averted. Thus, the Dodd-Frank Act recognizes that clearinghouses may attain "systemic importance,"¹⁴² but, once again, the Dodd-Frank Act, fearing bailouts, restricts the Federal Reserve Board's authority to lend to them.¹⁴³ Few scenarios for financial destabilization are more frightening (or more plausible) than the prospect of a clearinghouse's failure.¹⁴⁴ Thus, if clearinghouse bailouts are discouraged or made politically too costly, the best remaining alternative is the mandatory use of contingent capital in the capital structure of all major clearinghouses (and probably also at the major securities and futures exchanges as well).

William Greider, *Secrets of the Temple: How the Federal Reserve Runs the Country* (1987); Michael Wade Strong, *Rethinking the Federal Reserve System: A Monetarist Plan for a More Constitutional System of Central Banking*, 34 *Ind. L. Rev.* 371 (2001). The proper role of the Federal Reserve is beyond the scope of this Article. All that is asserted here is that, in culture and style, the Federal Reserve tends to share the financial industry's perspective, at least unless convinced that serious risks to the financial system are at stake. For precisely this reason, Congress gave the new consumer protection agency created within the Federal Reserve unique autonomy from its parent.

142. Section 804 ("Designation of Systemic Importance") authorizes the FSOC to designate a "financial market utility" as "systemically important" and hence subject to special oversight and regulation. Dodd-Frank Act § 804 (to be codified at 12 U.S.C. § 5463). Section 803(6) defines "financial market utility" to include clearinghouses and other settlement systems. *Id.* § 803(6) (to be codified at 12 U.S.C. § 5462).

143. Section 806 ("Operation of Designated Financial Market Utilities") permits a Federal Reserve Bank to provide "discount and borrowing privileges" to a "financial market utility" (i.e., a clearinghouse) "only in unusual and exigent circumstances" and only after (1) an affirmative vote by a majority of the Federal Reserve Board, (2) consultation with the Secretary of the Treasury, and (3) "a showing by the designated financial market utility that it is unable to secure adequate credit accommodations from other banking institutions." *Id.* § 806 (to be codified at 12 U.S.C. § 5465). These restrictions do not wholly forbid loans, but restrict them tightly.

144. Clearinghouses have failed in the past, and some economists believe that clearinghouses for over-the-counter swaps are particularly at risk of failure, because the counterparties who clear through them will have significant informational advantages over the clearinghouse. See Craig Pirrong, *The Clearinghouse Cure*, *Reg.*, Winter 2008–2009, at 44 (arguing OTC clearinghouses could increase systemic risk); Gretchen Morgenson, *Safety Net Encourages Bad Risks*, *Int'l Herald Trib.*, Oct. 4, 2010, at 20 ("[Clearinghouses] are big, interconnected and they can fail when we have big market shocks." (quoting Craig Pirrong)).

However, the Dodd-Frank Act does not confer authority on the Federal Reserve to require the use of contingent capital at clearinghouses or exchanges.¹⁴⁵ This is a dangerous and inconsistent omission. Prudent regulation, standing alone, will not prevent an eventual clearinghouse failure, and a failsafe strategy is thus needed.

CONCLUSION

Contingent capital is an idea whose time is coming—both within the United States and internationally. Its special virtue is that it responds to the problem of high risk-correlation among major financial institutions without relying on the ability of regulators to always make wise and far-sighted decisions in politically heated crises. Although use of contingent capital may be costly, this cost is another way to tax the externality that arises when creditors come to believe that some financial institutions are “too big to fail.”¹⁴⁶

For the immediate future, contingent capital will likely be initially tested in Europe.¹⁴⁷ This may reflect the more leveraged character of

145. The FSOC's and the Federal Reserve Board's authority to require contingent capital derive from sections 115(c) and 165 of the Dodd-Frank Act, which basically authorize enhanced supervision of “nonbank financial companies.” Dodd-Frank Act §§ 115(c), 165 (to be codified at 12 U.S.C. §§ 5325, 5365). Section 102(a)(4) defines the term “nonbank financial company” to exclude a “national securities exchange,” a “clearing agency,” a “securities-based swap execution facility,” and a “derivatives clearing organization” from this definition, thereby denying the Federal Reserve Board power over them under section 165. *Id.* §§ 102(a)(4), 165 (to be codified at 12 U.S.C. §§ 5311, 5365). Under section 805 of the Dodd-Frank Act, the Federal Reserve Board is given broad authority to “prescribe risk management standards” for “systemically important financial market utilities” (which includes a clearinghouse), but this authority would not seem to include power to impose a “contingent capital standard” (particularly because section 165 was very explicit in authorizing contingent capital with respect to “nonbank financial companies”). *Id.* § 805 (to be codified at 12 U.S.C. § 5464). The Act confers additional authority on both the SEC and the CFTC with respect to clearinghouses, but grants neither agency any statutory authority to issue a contingent capital standard. *Id.* § 716 (to be codified at 12 U.S.C. § 8305).

146. The riskier a financial institution is perceived by the market to be, the higher the likely interest rate will need to be on its contingent capital debt. This at least loosely adjusts the tax in a risk-adjusted fashion. In contrast, assessments charged to banks by a private industry bailout fund are less likely to be objectively risk-adjusted.

147. The European Commission expects to soon publish a “consultation paper” focusing on mandatory debt conversion into equity as a step towards enacting “a binding law.” Ambrose Evans-Pritchard, *EU Plans for Bondholder Haircuts Unsettles Debt Markets*, Daily Telegraph (London), Jan. 5, 2011, at <http://www.telegraph.co.uk/finance/financetopics/financialcrisis/8242275/EU-plans-for-bondholder-haircuts-unsettles-debt-markets.html> (on file with the *Columbia Law Review*); see also Ambrose Evans-Pritchard, *Europe Unveils Sweeping Plans to Govern Reckless Banks*, Daily Telegraph (London), Jan. 6, 2011, at <http://www.telegraph.co.uk/finance/financetopics/financialcrisis/8244160/Europe-unveils-sweeping-plans-to-govern-reckless-banks.html> (on file with the *Columbia Law Review*) (describing consultation paper). In addition, Switzerland has adopted higher equity standards for banks than the EU, and Switzerland's standards require the use of contingent capital. See *supra* note 23.

some European banks, or the stricter capital standards of some European countries, or possibly the disinclination of U.S. regulators (especially the Federal Reserve) to impose a new and untested idea on U.S. financial institutions. Yet, unlike many other potentially meritorious ideas that would require legislation, the Federal Reserve Board already has the legal authority to implement a “contingent capital requirement.”¹⁴⁸ Moreover, because contingent capital is a concept that regulators are considering on a worldwide basis, its adoption could avoid regulatory arbitrage and related problems that may undermine other sensible reforms.¹⁴⁹ International convergence on such a reform is much more possible than on issues such as resolution authority or cross-border bankruptcy, where individual nations have long, complex legal traditions and do not change course easily.

Attractive as the concept of contingent capital is, the devil remains in the details. This Article has proposed two design principles for a contingent capital standard for systemically significant financial institutions that will be controversial: (1) incremental conversion in a series of steps should be preferred over a massive, one-time conversion, and (2) shareholder pressure for short-term profit and higher leverage is best countered by giving the debt holders a limited right to vote in times of financial distress. Contingent capital can thus be designed to give us two reforms in one package: a safer, less default-prone capital structure and a counterweight to shareholder pressure.

More importantly, contingent capital is an illustration of a new kind of regulatory strategy: an attempt to embed a market-based buffer into the corporate governance of financial institutions in order to protect against both industry capture of the regulator and the cognitive limitations of all market participants. While desirable, regulatory oversight will inevitably be ad hoc, politically constrained, and inconsistent, and thus needs to be supplemented by more objective and market-based standards.¹⁵⁰ To be sure, contingent capital is not a panacea, nor a substitute for preventive regulation, but nothing is more certain than that regulators will again miss a crisis (or equivocate in the face of one). Contingent capital offers a systemic shock absorber to mitigate that next predictable failure.

148. See *supra* notes 132–137 and accompanying text.

149. For example, proposals for a bank levy to support a private insurance fund face problems if some countries adopt such a proposal and others do not. Those nations that do not tax their banks would become essentially free riders on the efforts of the other nations, as the fund will presumably protect all creditors of the insured bank.

150. This Article has politely refrained from stressing the failures of Drexel Burnham, Long-Term Capital Management, Bear Stearns, Lehman, Enron, WorldCom, or the SEC’s experience with Bernard Madoff. For a review of these failures, see Anabtawi & Schwarcz, *supra* note 4. At a minimum, the burden of persuasion is on those who believe that the Dodd-Frank Act will end future regulatory failures.