

The Uncertain Role of Banks’ Corporate Governance in Systemic Risk Regulation

Law Working Paper N° .179/2011

July 2011

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Abstract

This paper examines how corporate governance reform of banks relates to systemic risk. Although there has been substantial emphasis on the importance of corporate governance of banks, it is not entirely clear how this enterprise relates to the goal of financial stability. The first part of the paper differentiates between kinds of risk that arise from the structure of the firm, such as shareholder ownership, limited liability and the separation between control and ownership, and kinds of risk that arise from interactions at the systemic level. It highlights why the risk-taking of banks presents, in many respects, a special case not only because of the structure of their business but also because of recent innovation in the financial sector. It then analyzes how these different kinds of risk are related to each other, showing how firm-level sources of risk are much easier for corporate governance and regulation to address than risk arising at the systemic level. Then, with particular emphasis on recent reforms in the European Union, the paper analyzes policy proposals, including those related to strengthening risk management, altering board remuneration, reformulating board duties and altering the limited liability structure of the firm. The paper concludes that corporate governance reforms have a necessary yet often limited role in the regulation of systemic risk and then relates this discussion to the current state of affairs in the European Union.

Keywords: Banks, corporate governance, banking regulation, systemic risk, financial crisis
JEL Classifications: G21, G28, G34, K22, K23

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1. Introduction: The Competing Goals of “Good” Corporate Governance and Systemic Risk Regulation

Corporate governance reforms have been widely accepted as essential to prevent a repeat of the financial crisis.¹ While new financial regulatory regimes from jurisdictions the world over have elements aimed at reforming the corporate governance of banks,² it is not entirely clear how helpful this enterprise is in the pursuit of financial stability.³ Out of necessity, financial reform proposals, including those related to corporate governance, use the firm as the basic unit of analysis. After all it is the firm, in most cases the stockholding company, that conducts business and operates as a legal personality in the global economy, yet the basic problems of systemic risk—a widespread crisis of confidence resulting from a series of interrelated and correlative defaults of banks—are only solvable through a broader perspective. This view of the problem emphasizes how firm strategies interact through ever-changing relationships that, under certain circumstances, can threaten the entire financial system. Although some commentators have been tempted to disregard corporate governance

¹ For example, several high-profile proposals have viewed corporate governance as a critical element of financial reform. See Financial Services Authority, ‘Effective corporate governance,’ Consultation Paper 10/3, January 2010, <<http://www.fsa.gov.uk/pubs/cp/cp103.pdf>>; Grant Kirkpatrick, ‘The Corporate Governance Lessons from the Financial Crisis,’ *Financial MarketTrends* (2009): 1-30, also available online at <http://www.oecd.org/document/48/0,3343,en_2649_34813_42192368_1_1_1_1,00.html>; David Walker, ‘A review of corporate governance in UK banks and other financial industry entities – Final recommendations,’ <http://www.hm-treasury.gov.uk/walker_review_information.htm>, 26 November 2009, 9; G20 Working Group 1, ‘Enhancing Sound Regulation and Strengthening Transparency,’ <<http://www.internationalepolitik.de/ip/dossiers/g20/enhancing-sound-regulation-and-strengtheningtransparency.html>>, 25 March 2009; ‘Report of the High-Level Group on Financial Supervision in the EU,’ <http://ec.europa.eu/internal_market/finances/committees/index_en.htm#deLarosièrereport>, February 2009, no. 11 *hereinafter* the the Larosière Report; Association of Chartered Certified Accountants, ‘Corporate Governance and the Credit Crunch,’ <<http://www.accaglobal.com/economy/analysis/acca>>, November 2008, 4. See also Nestor Advisors, *Banks Boards and the Financial Crisis* (London: Nestor Advisors, 2009); Renee B. Adams, ‘Governance and the Financial Crisis,’ *ECGI Finance Working Paper No. 248/2009*, <<http://ssrn.com/abstract=1398583>>, April 2009.

² The term “bank” is meant to include securities firms, investment banks, and universal banks, all of which borrow from creditors to fund long-term investments, and most of which are now organized as stockholding companies. This definition of banking is different from legal and regulatory approaches. In particular, the European Parliament’s Directive 2006/48/EC relating to the taking up and pursuit of the business of credit institutions limits its application to credit institutions, which are defined as firms that take deposits. On the other hand, many of the Dodd-Frank Act’s requirements depend on a firm being organized as a bank holding company and having certain asset levels.

³ Since 2007, when the financial crisis began, there has been a wave of new law regulating the financial sector, many of which have elements especially aimed at reforming corporate governance. See e.g., Financial Secretary to the Secretary, ‘A New Approach to Financial Regulation: Building a Stronger System, Report to Parliament,’ <www.hm-treasury.gov.uk/d/consult_newfinancial_regulation170211.pdf>, February 2011; The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, 12 U.S.C. § 5301 (2010); Committee of Experts on ‘Too Big to Fail,’ Schlussbericht der Expertenkommission “Too big to fail” (Final Report of the Commission to the Swiss Government), <<http://www.sif.admin.ch/dokumentation/00514/00519/00592/index.html>> 4 October 2010; Peter Brierley, ‘The UK Special Resolution Regime for Failing Banks in an International Context,’ Bank of England Financial Stability Paper, <http://www.bankofengland.co.uk/financialstability/role/risk_reduction/srr/index.htm>, 7 July 2009, 6-8.

reforms entirely as “irrelevant,”⁴ there remains a widely held belief that substantial failures in corporate management made the financial crisis possible.⁵ This paper aims to explain how those failures relate to the larger picture of systemic risk and financial regulation.

One view is that firms took on too much risk by ignoring known and identifiable dangers because of poor incentives, whether they were poor compensation schemes leading to excessive focus on short-term results or fundamental features of the stockholding company, leading to overly high levels of risk taking.⁶ Prudential regulation, in the form of minimum capital requirements and limits on firm leverage, directly regulate the level of risk a bank may take.⁷ Logically accompanying these proposals are corporate governance reforms, which make sure that banks limit their risk-taking, either through limiting misaligned incentives or otherwise reducing the riskiness of business strategies. From this vantage point, financial reforms and corporate governance reforms address the problem of risk portfolio addition—if every firm is taking too much risk, then the entire system will also bear too much risk.

Analytically distinct from this discussion is the problem of systemic risk regulation. Here the regulatory concern is the combination of interconnectedness and correlation of risk portfolios, which in turn means that when a low-probability event occurs, such as a stark depreciation in a class of assets, many firms will experience a drastic decline in liquidity,

⁴ See Nicolas Howson, ‘When ‘Good’ Corporate Governance Makes ‘Bad’ Financial Firms: The Global Crisis and the Limits of Private Law,’ *Michigan Law Review First Impressions* 108 (2009): 44-50. A number of high-profile reports on the causes of the financial crisis failed to even mention corporate governance. See, e.g., ‘UBS, Investor release of July 1, 2008,’ <<http://www.ubs.com/1/e/investors/releases?newsId=144611>>, 1 July 2008; The President’s Working Group on Financial Markets, ‘Policy Statement on Financial Markets,’ <http://www.ustreas.gov/press/releases/reports/pwgpolicystatemktturmoil_03122008.pdf>, March 2008; Financial Stability Forum, ‘Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience,’ <http://www.financialstabilityboard.org/list/fsb_publications/page_3.htm>, 7 April 2008; International Monetary Fund, ‘The Recent Financial Turmoil – Initial Assessment, Policy Lessons, and Implications for Fund Surveillance,’ <<http://www.imf.org/external/np/pp/eng/2008/040908.pdf>>, 9 April 9 2008.

⁵ See, e.g. *supra* note 3. See also the Larosière Report.

⁶ See recitals 1 – 4 of the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies, L 329/3 CRD III.

⁷ Somewhat ironically capital requirements have traditionally been viewed as one of the most important weapons in the arsenal against the dangers of systemic risk, yet in reality, these requirements are aimed to ensure firm solvency in case a systemic event occurs. See Hal Scott, ‘The Reduction of Systemic Risk in the United States Financial System,’ 33 *Harvard Journal of Law & Public Policy* (2010): 671, 679. The design of such requirements, however, can *increase* systemic risk, if they, for example, incentivize institutions to sell illiquid assets at the same time, thereby effecting rapid price declines. See Monica Billio, Mila Getmansky, Andrew Lo, & Lorian Pelizzon, ‘Econometric Measures of Systemic Risk in the Finance and Insurance Sectors,’ MIT Sloan Research Paper No. 4774-10; NBER Working Paper No. 16223; AFA 2011 Denver Meetings Paper, <<http://ssrn.com/abstract=1571277>>, 18 July 2010, 1-4; Rolf Nebel, ‘Regulations as a Source of Systemic Risk: The Need for Economic Impact Analysis,’ *Geneva Papers on Risk and Insurance* 29 (2004): 273-283, also available at <<http://ssrn.com/abstract=517097>>.

threatening the solvency of the given institution.⁸ This formulation of the systemic risk problem reflects the importance of how systemic risk creates risk to the individual firm. In contrast to other kinds of risk, this risk can be very difficult for individual firms to diversify away because the danger presents itself at the level of the system. Aside from problems of “moral hazard,” regulatory solutions to systemic risk have much less to do with incentives and much more to do with managing a potential systemic event at various stages, with the explicit aim to prevent catastrophic losses to the financial system.⁹ Although firms can have procedures to ameliorate the effects of a systemic event, it will still be difficult to ensure solvency when such an event indeed occurs.

With these two analytically different approaches to financial regulation in mind, it is not necessarily clear where corporate governance reform should fit into the policy debate. From a systemic risk perspective, corporate governance should not be that important,¹⁰ yet corporate governance reform and regulation of firm-level risk-taking, at least, should still be relevant to the extent that firms have incentives to take on too much risk, aside from that risk that is systemic in nature. Overly leveraged or overly risky firms with bad corporate governance will more likely succumb to a systemic event. Yet this paper also finds that some specific corporate governance reforms can have even more of a direct relationship to systemic risk, thereby reducing both firm-level and systemic risk.

This paper considers how to design corporate governance and, more broadly financial reform, with these different kinds of risk in mind. It then proposes a theoretical framework for considering these policies, with specific emphasis on corporate governance. In the first part, by addressing agency conflicts related to limited liability and the separation of ownership and control, it explains why banks have incentives to take on too much risk and how this kind of risk has specific implications for the financial system at large. It then explains how this category of risk is analytically distinct from systemic risk, but how they are both related to one another, which leads to powerful normative arguments for how corporate governance and financial reform should be formulated. It then analyzes policy proposals, with particular emphasis on those being currently implemented in the European Union. First, it addresses reforms that enhance traditional corporate governance mechanisms. In this category are those reforms, which alter board composition and remuneration policies. It then

⁸ See e.g., Billio, Getmansky, Lo & Pelizzon, ‘Econometric Measures of Systemic Risk,’ 1-4; Steven L. Schwarcz, ‘Systemic Risk,’ *Georgetown Law Journal* 97, no. 1, (2008).

⁹ See *supra* note 3.

¹⁰ “Most other aspects of traditional corporate governance—good or improved, indifferent or idealized—are quite *irrelevant* to what occurs at modern firms.” Howson, ‘When ‘Good’ Corporate Governance Makes ‘Bad’ Financial Firms,’ 46.

discusses redesigning corporate governance mechanisms, through changing director duties and eliminating limited liability, and then analyzes how these reforms could be designed to address systemic risk. Finally, the paper concludes that corporate governance reforms have a necessary yet often limited role in the regulation of systemic risk and then relates this discussion to the current state of affairs in the European Union.

2. Why Do Firms Take on Too Much Risk?

2.1 Firm-Level Models of Risk

Academic work on financial risk has traditionally focused on how individual firms take on too much risk. It has long been known that the creation of limited liability has affected shareholder incentives, capping potential losses on the one hand, yet allowing theoretically unlimited financial gains. Indeed, much of the most influential and groundbreaking work in corporate finance over recent decades has clarified these incentive structures. In the case of banks, these fundamental problems, related to limited liability, create additional risk for the real economy. A different and analytically distinct problem is the danger of misaligned incentives for managers. This is a problem that necessarily arises from the separation of ownership and control. The next section then makes some observations about why firm-level risk taking of banks presents, in many respects, a special case.

2.1.1 Shareholder Ownership and Limited Liability

At the firm level, the literature has modeled externalities, based on shareholders and their incentives to invest and take risk. This problem can first be presented as a fundamental issue of the limited liability of the stockholding company. Two seminal articles, one by Jensen and Meckling and the other by Myers, defined two separate agency problems related to the debt financing of firms owned by shareholders. These theories are necessary starting points to consider how limited liability and shareholder ownership can cause any firm, including a bank, to take on too much risk. Finally, these general problems are then specifically related to banks.

Jensen and Meckling showed, through modeling the “asset substitution” problem, that shareholders will choose overly risky projects because their incentives resemble those of a call option.¹¹ In other words, shareholders only face the loss of the value of their share upon insolvency but can theoretically reap unlimited profits, which will make shareholders inclined to choose highly risky, yet highly profitable projects, even if those projects have a negative net present value. If that project fails and causes insolvency, many of those costs will be borne by debtholders, yet if it is successful, shareholders reap most of the benefits. In a similar vein, Myers demonstrated that, because of the “debt overhang” problem, shareholders

¹¹ Michael Jensen & William Meckling, ‘Theory of the Firm: Managerial Behavior, Agency Costs, and Capital Structure,’ *Journal of Financial Economics* 4 (1976): 177-203.

will not pursue net present value projects, when there is an existing debt position and the project will mostly benefit debt-holders, especially when firms are closer to insolvency.¹²

2.1.2 Separation of Ownership and Control

Analytically distinct from costs arising from the limited liability of stockholding companies are those agency costs arising from the separation between ownership and control. It is a common feature of the modern stockholding company that, on the one hand, shareholders own the enterprise, but the board, on the other hand, has independent power to control the enterprise.¹³ There is no guarantee, however, that directors or officers, for that matter, will serve the best interests of the owners. This problem, noted early by no other than Adam Smith¹⁴ and elaborated in more recent times by Berle and Means,¹⁵ and Fama and Jensen,¹⁶ has been one of the most fundamental and troubling problems of the stockholding company.¹⁷ In the context of banks, the costs of misaligned manager incentives may be even greater because of the potential costs may be imposed on the rest of the economy through weakened

¹² Stewart Myers, 'Determinants of Corporate Borrowing,' *Journal of Financial Economics* 5 (1977): 147-175. Relatedly, manager-controlled firms are more risk adverse, argues Coffee, because managers do not have the same ability to diversify risk as shareholders. John Coffee, 'Shareholders Versus Managers: The Strain in the Corporate Web,' *85 Michigan Law Review* (1986): 1.

¹³For example, the Delaware Corporate Code §141a requires that the board of directors manages the corporation. In the case *Automatic Self-Cleansing Filter Syndicate Co., LTD v. Cuninghame* [1906] 2 Ch. 34. C.A., the court held that the board's decision was valid even though it contradicted the will of the majority of shareholders.

¹⁴ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Clarendon, Oxford, 1776), 741.

¹⁵ "The interests of control are different from and often radically opposed to those of ownership; that the owners most emphatically will not be served by a profit-seeking controlling group." Adolf A. Berle & Gardiner C. Means, *The Modern Corporation and Private Property* (New York: Harcourt, Brace & World, [1932] 1968), 113-14.

¹⁶ [The agency] "problem [has][...] bothered students of corporations from Adam Smith to Berle and Means." Eugene F. Fama & Michael C. Jensen, 'Separation of Ownership and Control,' *Journal of Law and Economics* 26, no. 2 (1983): 301-325, also available at <<http://ssrn.com/abstract=94034>>. Other authors have theorized that the separation of control and ownership survives because of the benefits of specific knowledge at the decision level and the agency problems associated with diffuse shareholder ownership. See Gavin Kelly & John Parkinson, 'The Conceptual Foundations of the Firm,' in *The Political Economy of the Company*, (d. Andrew Gamble, Gavin Kelly, & John Parkinson (London: Hart, 2000).

¹⁷ See regarding 'empire building,' Michael Jensen, 'Agency Cost of Free Cash Flow, Corporate Finance, and Takeovers,' *American Economic Review* 76 (1986): 323-329; Oliver Williamson, *The Economics of Discretionary Behavior: Managerial Objectives in a Theory of the Firm* (Englewood Cliffs, N.J.: Prentice Hall, 1964). See also regarding remuneration, "the increase in academic papers on the subject of CEO compensation during the 1990s seems to have outpaced even the remarkable increase in CEO pay itself during this period." Lucian A. Bebchuk & Jesse M. Fried, 'Executive Compensation as an Agency Problem,' *Journal of Economic Perspectives*, Vol. 17 (2003): 71-92, 71, also available at <<http://ssrn.com/abstract=364220>>. See regarding "short-termism," Eva Liljeblom & Mika Vaihekoski, 'Corporate Ownership and Managerial Short-Termism: Results from a Finnish Study of Management Perceptions,' *International Journal of Production Economics* 117, no. 2 (2009), also available at <<http://ssrn.com/abstract=1346892>>. See also Andrei Shleifer & Robert W. Vishny, 'Large Shareholders and Corporate Control,' *Journal of Political Economy* 94, no. 3 (1986): 461-88.

credit markets, which serve an essential function to the day-to-day operation of the real economy. In other words, managers of banks who misuse corporate assets, for whatever reason, leave the firm less well off, thereby increasing the risk portfolio of shareholders and the larger economy.

Jensen in particular has argued that to solve the agency problem, directors and managers must be able to optimally contract so that the compensation of executives is aligned to the interests of the firm.¹⁸ Most problematic, according to this approach, are regulations or policies, which interfere with “optimal contracting.” Jensen and Murphy thus argued that government regulation of executive compensation had resulted in too meager compensation schemes, which would fail to give manager sufficiently handsome monetary incentives.¹⁹ However, contracting will only be optimal if boards negotiate with managers to ensure that the resulting contract maximizes shareholder value. Problematic, in view of a real-world application of these principles, are circumstances in which arm’s-length negotiation does not occur.

Precisely with this problem in mind, other commentators take a different view of the problem of executive compensation: although executive compensation can be a solution to the agency problem, it can also be problematic in and of itself.²⁰ The general thrust of these arguments is that boards of directors will often “go along” with a strong-willed CEO, thus doing little to resolve the agency problems inherently present in management’s decisions.²¹ In countries with a two-tier board, the worry is that the supervisory board will not conduct adequate oversight over the management board, when making remuneration decisions.²² Particularly troublesome is the movement of members of the management board to the supervisory, thereby creating a conflict of interest.²³ For a variety of reasons a board of directors may not seek to maximize shareholder value because of defects exist in the process

¹⁸ Michael Jensen & Kevin Murphy, ‘Performance Pay and Top Management Incentives,’ *Journal of Political Economy* 98 (1990): 225-263. See also Kirkpatrick, ‘Corporate Governance Lessons,’ 13.

¹⁹ *Ibid.*

²⁰ Bebchuk & Fried, ‘Executive Compensation as an Agency Problem,’ 2.

²¹ For example, without the requisite information and expertise, the board of a financial institution will not be able to provide oversight of the management’s risk-management and risk-taking activities. This problem is exacerbated by the fact that management will have better access to information. See Kirkpatrick, ‘Corporate Governance Lessons from the Financial Crisis,’ 19-20.

²² *Ibid.*

²³ See e.g., OECD Steering Group on Corporate Governance, Directorate for Financial and Enterprise Affairs, Corporate Governance and the Financial Crisis, ‘Corporate Governance and the Financial Crisis: Conclusions and Emerging Good Practices to Enhance Implementation of the Principles,’ <www.oecd.org/dataoecd/53/62/44679170.pdf>, 24 February 2010, 17.

of negotiation.²⁴

In the United States, these problems are exacerbated further. Shareholders do not vote for individual candidates but rather for an entire slate of candidates. CEOs have a critical role in deciding who will be nominated as part of management's slate of candidates, which very often is, for lack of an alternative, the only slate of candidates, for which shareholders may vote.²⁵ Precisely with this problem in mind, the SEC has recently proposed rules granting proxy access to the candidates of significant, long-term shareholders.²⁶ A number of scholars have noted how limited proxy access may alter director incentives, since a director who challenges management too forcefully, for example on issues of compensation or risk management, may find herself not re-nominated on the next slate. Usually, directors do not have a significant equity stake in the firm, and their normal source of information, especially regarding compensation will be the schemes of other firms, which presumably suffer from the same defects. Finally, Bebchuk, Fried and Walker note that market forces will do relatively little to punish inadequate oversight or "optimal contracting," because, for example, firms have substantial defenses against takeover, e.g., in the form of the poison pill.²⁷

2.1.3 Why Banks Are Different

So far, a series of generic observations have been made to explain why any firm might take on too much risk. There are many aspects of banks, particular with regard to the mismatch of maturity between assets and liabilities, which further increase the possibility of inefficient risk-taking. The most important function of banks is the investment in long-term loans, which are funded through deposits that can be withdrawn unconditionally at any time.²⁸

²⁴ For example, Bebchuk and Fried recently systemically analyzed the problem of executive compensation. Directors are well compensated, and the position is "likely to provide prestige and valuable business and social connections." Bebchuk & Fried, 'Executive Compensation as an Agency Problem,' 2.

²⁵ Lucian A. Bebchuk, 'The Myth of the Shareholder Franchise,' *Virginia Law Review* 93, no. 3 (2007): 675-732, 703.

²⁶ See 'SEC Adopts New Measures to Facilitate Director Nominations by Shareholders,' <<http://www.sec.gov/news/press/2010/2010-155.htm>>, August 25, 2010.

²⁷ See *supra* note 24. See Lucian A. Bebchuk, Jesse M. Fried & David I. Walker, 'Managerial Power and Rent Extraction in the Design of Executive Compensation,' *University of Chicago Law Review* 69, no. 3 (2001): 751-846.

²⁸ See Peter O. Mülbart, 'Corporate Governance of Banks After the Financial Crisis—Theory Evidence, Reforms,' *Revue Française d' Enterprise*, no. 8 (2010): 151-6, also available at <<http://ssrn.com/abstract=1448118>>. For example, one model shows that financial firms have incentives to overly invest in short-term illiquid assets, which may impose costs on the firm during a crisis through fire sales. When many firms must sell relatively illiquid assets at once, the problem is compounded because many fire sales occurring at once will have the effect to reduce prices further, which will, in turn, negatively affect

More broadly, the balance sheets of banks are purposefully structured so that assets and liabilities are mismatched in terms of maturity so that long-term assets are difficult to convert to cash.²⁹ This mismatch results in banks being especially vulnerable to liquidity shocks, which are often systemic in nature,³⁰ but which are also a reflection of the basic nature of their business.³¹ Furthermore, the organization of the banks in the United States as bank holding companies will tend to exacerbate the problem, because such organization adds another layer of limited liability.³² Although non-U.S. firms are not organized as bank holding companies, the increased riskiness of the large U.S. financial sector has global implications.

Several other aspects have important implications for risk-taking strategies of banks. Because capital will flow to the cheapest service provider, it matters greatly how different banks and other financial intermediaries are regulated differently. In recent years it has become possible for different new market participants to achieve similar economic results, an outcome which is closely related to increasing usage of derivatives and complex financial instruments.³³ Securitization, in effect, blurs the differences between the roles the parties are taking. Financial regulation of banks creates a very complex set of incentives because some actors, such as banks, are very heavily regulated, while others remain much less regulated.³⁴ In addition, large banks raise the bulk of their short-term financing through the overnight commercial paper market. In the event that a firm cannot obtain short-term financing from this source, it can experience a drastic decline in the funding which fund the day-to-day operations of the bank.³⁵ Banks manage a myriad of risks through hedging, usually by writing option contracts often to protect against price fluctuations. As was seen during the crisis, the management of these portfolios of instruments, ostensibly designed to reduce risk, can under circumstances create catastrophic risk for the given firm.³⁶ As will be seen, this firm-level risk-management strategy can interact to have important systemic risk implications

liquidity at the firm level. Oliver de Bandt & Philipp Hartmann, 'Systemic Risk: A Survey,' *ECB Working Paper*, no. 35, <<http://ssrn.com/abstract=258430>>, November 2000, 13, 19.

²⁹ Mülbart, 'Corporate Governance of Banks,' 151-6.

³⁰ *Ibid.*

³¹ For example, when many depositors decide to withdraw, the bank may default even though it is solvent in the long term. See e.g., Mülbart, 'Corporate Governance of Banks,' 151-6. de Bandt & Hartmann, 'Systemic Risk,' 13, 17.

³² Lucian A. Bebchuk & Holger Spamann, 'Regulating Bankers' Pay,' *Georgetown Law Journal* 98, no. 2, (2010): 247-287, 2010, also available at <<http://ssrn.com/abstract=1410072>>.

³³ See Charles Whitehead, 'Reframing Financial Regulation,' 90 *Boston University Law Review* 1 (2010): 20.

³⁴ Billio, Getmansky, Lo, & Pelizzon, 'Econometric Measures of Systemic Risk in the Finance and Insurance Sectors, 1-4'

³⁵ For a more detailed discussion of this problem, see Scott, 'Reduction of Systemic Risk in the Financial System,' 686-607.

³⁶ *Ibid.*

for the financial system. Further, banks receive compensation specifically because there is a mismatch between the maturation of assets and liability. Increasing lending will increase the amount of this compensation, driving up profits, but it will also increase the leverage of the firm, thereby increasing the probability of the given firm's failure.³⁷

For these reasons, the central bank has traditionally taken the role of the "lender of last resort."³⁸ In the latest financial crisis, central banks, especially the Federal Reserve, coordinated unprecedented intervention into the markets for short-term liquidity. When banks do not undergo net present value positive projects because of the limited liability structure, their failure to do so will spillover to the financial sector at large and the real economy, creating, at the time of a crisis, a power argument for government subsidies. In fact, there is evidence that the entire financial sector suffered from such a debt-overhang problem during the financial crisis.³⁹ Ex ante, an overly risky bank will be unlikely to reduce its risk portfolio voluntarily. Black, Scholes and Merton showed the biggest determinant of the value any at-the-money or out-of-the-money option will be the underlying volatility of the asset.⁴⁰ Shareholders will resist any attempt to reduce the volatility of the underlying asset, either through selling common stock or disposing of toxic assets. They will therefore require a subsidy, because any such action will negatively affect their future payoff, probably in the form of a government bailout.⁴¹

Most company law addresses the incentive problems of the firm in general, yet even the most effective strategies to ameliorate these sources of risk may be inadequate to address the particular dangers of the financial sector. On the one hand, banks because of their essential function as lenders will have a disproportionate effect on the rest of the economy compared to this sector's size. On the other hand, there are many features of banks and their modern business strategy that make them more risky than the average firm.⁴² With these features in mind, this paper will explore how to create company law rules and regulation that addresses these problems specifically with regard to banks. A very different kind of

³⁷ See Mülbart, 'Corporate Governance of Banks,' 151-6.

³⁸ See Inman Anabtawi & Steven Schwarcz, 'Regulating Systemic Risk: Towards an Analytical Framework,' *Notre Dame Law Review* 86, no. 4 (2011): 55-6, also available at <<http://ssrn.com/abstract=1735025>>. See also Mülbart, 'Corporate Governance of Banks,' 151-6.

³⁹ See Linus Wilson, 'Debt Overhang and Bank Bailouts,' <<http://ssrn.com/abstract=1336288>>, 12 September 2009, 4.

⁴⁰ See Fischer Black & Myron Scholes, 'The Pricing of Options and Corporate Liabilities,' *Journal of Political Economy* 81, (1973): 637-654; Robert C. Merton, 'Theory of Rational Option Pricing,' *Bell Journal of Economics and Management Science* 4, (1973): 141-183. For an application to the financial crisis, see also Wilson, 'Debt Overhang and Bank Bailouts,' 6.

⁴¹ Wilson, 'Debt Overhang and Bank Bailouts,' 6.

⁴² See *supra* section Why Banks Are Different.

financial risk is systemic risk, a category of risk that so far has only been mentioned in passing but has relevance for the maintenance of financial stability.

2.2 Models of Systemic Risk

Banks do not only create risk for the economy through the riskiness of their individual business strategies but also through systemic risk. This kind of risk has very different theoretical underpinnings from firm-level risk. Although systemic risk has long been known to be a danger to the financial system and the world economy,⁴³ this classification of risk has taken on more importance since the financial crisis of 2008.⁴⁴ Despite the large amount of academic discussion of systemic risk, it has been difficult to relate such discussions to practical policies, on the one hand, and to compare relative costs and benefits of such approaches, on the other.⁴⁵ The core of the problem is to understand why sometimes the failure of a bank, even one that is relatively large and connected with other firms through real exposures, will cause barely hiccups in the entire financial system,⁴⁶ and why at other times such a failure will threaten the very survival of the entire financial system. This concern, which is related to the “Too Big to Fail” problem, is alternatively formulated in the corporate finance literature as the difference between idiosyncratic risk and systemic risk.⁴⁷

For a *definition of systemic risk*, this paper borrows from Andrew Lo’s testimony to the House Financial Services Committee: “Systemic risk is usually taken to mean the risk of a broad-based breakdown in the financial system, often realized as a series of correlated

⁴³ See e.g., Charles Kindleberger, *Manias, Panics, and Crashes: A History of Financial Crises*, (New York: Wiley, 1996).

⁴⁴ See e.g., Schwarcz, ‘Systemic Risk.’ See also ‘Speech by SEC Commissioner: Regulatory Reform That Optimizes the Regulation of Systemic Risk Commissioner Luis A. Aguilar,’ <<http://www.sec.gov/news/speech/2010/spch041610laa.htm>> 16 April 2010. Chairman Bernanke noting miscalculation of the systemic danger at the Lehman bankruptcy would impose, recalled that, “[i]f the effect was measured on a scale of 0 to 100, some thought a Lehman failure would be a ‘minor disruption’ – in the 1-15 range. Bernanke’s own view was in the 90-95 range. However, the actual effect turned out to be ‘maybe 140. It was worse than almost anybody expected.’” ‘Lehman Brothers Holdings Inc. Chapter 11 Proceedings Examiner’s Report of Anton Valukas,’ <<http://lehmanreport.jenner.com/>>, 11 March 2010, 5839-40.

⁴⁵ For a good analysis of the legal issues, see Schwarcz, ‘Systemic Risk.’

⁴⁶ Compare to the concept of a black swan event. “Small perturbations in one part of the financial system can now have surprisingly large effects on other, seemingly unrelated, parts of that system.” Andrew W. Lo, ‘Written Testimony Prepared for the U.S. House of Representatives Financial Services Committee The Feasibility of Systemic Risk Measurement,’ <<http://ssrn.com/abstract=1497682>>, 19 October 2009, 4.

⁴⁷ “In an extreme sense idiosyncratic shocks are those which, initially, affect only the health of a single financial institution or only the price of a single asset, while systematic or widespread shocks – in the extreme – affect the whole economy.” de Bandt & Hartmann, ‘Systemic Risk a Survey,’ 10.

defaults among financial institutions— typically banks—that occurs over a short period of time, i.e., a “bank run” that spreads quickly and leads to multiple bank failures.”⁴⁸

This paper emphasizes two core elements in this definition of systemic risk: *correlative risk portfolios* and *interconnectedness*. Correlation means that the risk profile of one firm will tend to correlate with that of other firms or that of the economy—that is macroeconomic conditions—thus creating a feedback loop, which becomes worse and worse as the crisis proceeds and leads to default.⁴⁹ However, correlation of risk portfolios by itself will not create systemic event: there must be interconnectedness, which means channels by which the financial “contagion”⁵⁰ is spread. In other words, interconnectedness is the means by which correlative defaults occur in practice.⁵¹ These two elements—correlation and interconnectedness—can interact to threaten the failure of several different firms, the financial sector as a whole, or even, during a widespread crisis of confidence, the wider economy, thereby being a catalyst for an economic recession or depression.⁵²

2.2.1 Correlation of Risk Portfolios

⁴⁸ Lo, ‘The Feasibility of Systemic Risk Measurement,’ 3. The I.M.F. lists various theoretical approaches to a definition of systemic risk, including “the network approach,” the co-risk model,” “the distress dependence matrix,” and “the default intensity model”, see International Monetary Fund, ‘Global Financial Stability Report: Responding to the Financial Crisis and Measuring Systemic Risks,’ <www.imf.org/external/pubs/ft/gfsr/2009/01/pdf/text.pdf> 21 April 2009, 74. Drehmann and Tarashev stress the difference between a bank’s participation in a systemic event and its contribution to systemic risk. Particularly, “it is necessary to account explicitly for the fact that a bank contributes to systemic risk not only via its exposure to exogenous shocks but also by propagating such shocks through the system and by being itself vulnerable to propagated shocks. Matthias Drehmann & Nikola Tarashev, ‘Measuring the Systemic Importance of Interconnected Banks,’ *Bank for International Settlements Working Paper*, No. 132, <www.bis.org/publ/work342.htm>, March 2011, 1. Finally, the IMF, BIS and FSB in a report to the G-20 and central bank governors, note that most jurisdictions do not have a formal or legal definition of systemic importance, but rather authorities stress how failure of an institution can cause “widespread distress,” either focusing on the impact on the financial sector or the real economy. Staff of the International Monetary Fund and the Bank for International Settlements, & the Secretariat of the Financial Stability Board, ‘Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations—Background Paper,’ <www.imf.org/external/np/g20/pdf/100109a.pdf>, October 28, 2009. Finally, the British Treasury report emphasizes on essential aspects of regulation to manage systemic risk, such as information problems, misaligned incentives, market illiquidity, contagion, systemically important institutions, and inadequate market infrastructure. The Financial Secretary to the Secretary, ‘A New Approach to Financial Regulation: Building a Stronger System, Report to Parliament,’ 16.

⁴⁹ Even when a crisis begins with correlative losses across financial institutions, there is usually observed a strong correlation between such losses and poor macroeconomic performance. See de Bandt & Hartmann, ‘Systemic Risk a Survey,’ 23-24.

⁵⁰ de Bandt & Hartmann, ‘Systemic Risk a Survey,’ 18.

⁵¹ *Ibid.*

⁵² See e.g., ‘Lehman Brothers Examiner’s Report,’ 1505; de Bandt & Hartmann. The danger of financial failure can lead to recession or even depression. ‘Systemic Risk a Survey,’ 16.

Correlation of asset portfolios leading to firm default is a core element of systemic risk.⁵³ As a starting point, it is useful to work through a thought experiment first proposed by Viral Acharya, in which there is an economy with two firms. Each firm is either diversified or focused, and there are only two industries, in which the firms invest. At the firm level, to protect against losses the firms will diversify their risk portfolios, meaning they will invest to some degree in both industries. However, in a crisis scenario, both firms' portfolios will tend to correlate. If one firm fails, the other will tend to fail, which will cause systemic risk for our imaginary economy. In contrast to the firm-level risk analysis leading to diversification, from a systemic risk perspective, it would be optimal for either firm to invest exclusively in each separate industry, so that the danger that all firms will fail would be lower.⁵⁴ One basic feature of systemic risk is that optimal firm-level risk management strategies may at certain times increase systemic risk.

It is more difficult to move away from abstract models to a model of how exactly firm-level risk diversification causes a spillover on the rest of the financial sector, causing a correlation to evolve in to a full-blown financial crisis. Viral Acharya has created a model, in which banks' portfolios correlate to each other, causing risk to the financial system. At partial equilibrium, each firm will diversify risk to maximize returns, yet they will not take into account the interaction of these portfolios. Acharya describes the problem as follows: “[Such partial equilibrium] ignores that in general equilibrium, each bank’s investment choice has an externality on the payrolls of other banks and thus on their investment choices.”⁵⁵ To solve the problem it is necessary to ensure that banks take into account collective risks that could arise from a systemic event, in effect anticipating how risk diversification can lead to systemic risk.

In practice, it may be difficult to predict the co-movement of asset prices and, accordingly, the correlation of risk portfolios. Perhaps most problematic for systemic risk regulation is the fact that asset classes will correlate during a financial crisis, yet during normal times, their prices will not fluctuate in tandem. Some event, such as the insolvency of a major bank, triggers a crisis of confidence—this occurrence is explored in the next section as a problem of asymmetric information. Once a crisis in confidence begins, asset prices begin to behave in an unpredictable manner, making pre-crisis analyses of exposure less than adequate. During such a crisis scenario, prices may fluctuate in such a manner that cannot be

⁵³ See *supra* note 48.

⁵⁴ Viral Acharya, ‘A Theory of Systemic Risk and Design of Prudential Bank Regulation,’ *Journal of Financial Stability* 2, Forthcoming, (2011): 33-34, also available at < <http://ssrn.com/abstract=1334457>>.

⁵⁵ Viral V. Acharya, ‘A Theory of Systemic Risk and Design of Prudential Bank Regulation,’ 2.

explained by fundamental analyses.⁵⁶ The unexpected co-movement of asset prices means that the risk profile of a given bank can change quite rapidly leading to insolvency, which, in turn will further endanger other banks or firms.⁵⁷ Such rapid drops in prices will be more likely after a boom, in which both asset prices and lending activity rose dramatically.⁵⁸ Once a recession or depression is underway, prices will be further depressed because prices tend to correlate to general macroeconomic conditions, just as they had during the previous economic boom.⁵⁹

In fact, the widespread use of VaR, the statistical model, which is part of the second pillar of Basel II as a preferred approach for measuring market risk,⁶⁰ probably increased correlative movements of asset prices, because similarly situated investors, who were guided by VaR, would sell assets exactly when correlative asset price movements were the most dangerous, i.e. at the apex of the crisis.⁶¹ Entire classes of assets, which previously had been freely traded, either experienced drastic declines in prices or for a significant amount of time, had no value at all.⁶² The rapid increase in repo spreads on the overnight commercial paper market, which reflected the drastic decline in asset prices posted as collateral for short-term loans, resulted in the sudden disappearance of short-term liquidity for large banks.⁶³ For example, in a matter of two days, Bear Stearns' liquidity pool decreased by 83%, from \$12 to \$2 billion, a drop reflecting counterparties' unwillingness to provide short-term financing on

⁵⁶ de Bandt & Hartmann, 'Systemic Risk,' 14.

⁵⁷ Chairman Christopher Cox testified that the liquidity pool of Bear Stearns fell by 83% in two days and observing, "what neither the [SEC] regulatory approach nor any existing regulatory model had taken into account is the possibility that secured funding, even if it was over-collateralized with U.S. Treasury or agency securities, might disappear in a crisis of confidence." Lehman Brother's Examiner's Report, 1388.

⁵⁸ See e.g., Kindleberger, *Manias, Panics, and Crashes: A History of Financial Crises*.

⁵⁹ de Bandt & Hartmann, 'Systemic Risk,' 23-24. See also G. Gordon, 'Banking Panics and Business Cycles,' *Oxford Economic Papers* 40 (1988): 751-781.

⁶⁰ See 'Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework - Comprehensive Version: Part 3: The Second Pillar—Supervisory Review Process, 206-8,' <<http://www.bis.org/publ/bcbs128.htm>>, June 2006.

⁶¹ See e.g., Michele Bonollo, Paola Mosconi & Fabio Mercurio, 'Basel II Second Pillar: An Analytical VaR with Contagion and Sectorial Risks,' *The IUP Journal of Financial Risk Management* 7, nos. 1 & 2 (2010): 7-23. Jón Danielsson & Jean-Pierre Zigrand, 'Equilibrium Asset Pricing with Systemic Risk,' *Economic Theory* 35, no. 3 (2008): 293, 308.

⁶² See *supra* note 35.

⁶³ Repo spreads are the difference between the face value of the asset and the amount of the short-term loan. If the borrower defaults on the loan, the creditor usually will be able to keep the asset. A widespread increase in repo spreads means that the market doubts the ability to sell given classes of assets at face value. For a very clear explanation of this market and its relationship to the Lehman Brothers bankruptcy, see the Lehman Brothers Examiners Report, 732-800. See also Peter Hördahl & Michael R. King, 'Developments in Repo Markets During the Financial Turmoil,' *BIS Quarterly* (December 2008): 45, also available at <<http://ssrn.com/abstract=1329903>>. For an analysis specifically with regard to the European overnight commercial paper market and ECB liquidity programs, see Nuno Cassola & Michael Huetl, 'The Euro Overnight Interbank Market and ECB's Liquidity Management Policy During Tranquil and Turbulent Times,' ECB Working Paper No. 1247, <<http://ssrn.com/abstract=1678446>>, 17 September 2010.

the over-night commercial paper market, based on collateral, such as asset-backed securities.⁶⁴ AIG experienced a similar situation when it could not honor its contractual obligations by posting adequate collateral as the prices of sub-prime loans fell further.⁶⁵

2.2.2 Real and Informational Linkages

Correlation of risk portfolios, by itself, probably will not threaten the entire financial sector. There must be some linkage between firms, by which the “contagion” is spread.⁶⁶ Conceptually, such linkages can be thought of as either being “real” or “informational.”⁶⁷ The former refers to “domino effects” of losses, through channels, such as interbank deposits, net payment systems or counter-party exposure through derivative contracts. The latter relates to depositors or other participants, who pull their deposits or other assets from firms, on the basis of imperfect information, such as radical and quick swings in the market, which are interpreted as an indicator relating to extent of the shock and the health of any given bank.

Real linkages are exposures by which counterparties experience losses because of the concrete losses due to a contractual relationship. Unlike other industries, competitors in the banking sector are also business partners in important respects, including the inter-bank loan, derivatives and foreign exchange markets. The typical bank must manage these relationships as part of its risk-management strategy, yet the complexity and size of these markets also are a significant source of systemic risk.⁶⁸ Interbank deposits create the danger of the spread of losses because of direct exposure from deposits or loans between banks.⁶⁹ Net payment systems refer to the practice of one firm settling its position in “net settlement systems,” such as the Clearinghouse Interbank Payments System (CHIPS), in the United States,⁷⁰ or the Trans-European Automated Real-time Gross settlement Express Transfer System

⁶⁴ See Whitehead, ‘Reframing Financial Regulation,’ 22-23.

⁶⁵ With specific reference to A.I.G., see *ibid.*, 39-40.

⁶⁶ Hal Scott has noted that there are four principal linkages, including “interbank deposits, net payment systems, imitative runs, [and] counterparty risk on derivative contracts.” Scott, ‘The Reduction of Systemic Risk in the United States Financial System,’ 672-676. See also de Bandt & Hartmann, ‘Systemic Risk,’ 14.

⁶⁷ de Bandt & Hartmann, ‘Systemic Risk,’ 18

⁶⁸ Harrington observes, “the Federal Reserve and U.S. Treasury judged that it was better to undertake a *de facto* government takeover of AIG than risk the consequences. There can be little doubt that this judgment was affected by the desire to protect AIG’s banking counterparties.” Scott E. Harrington, ‘The Financial Crisis, Systemic Risk, and the Future of Insurance Regulation,’ *The Journal of Risk and Insurance* 76 (2009): 785-819, 785, 798. For an alternative view, see Scott, ‘The Reduction of Systemic Risk in the United States Financial System,’ 675-676.

⁶⁹ See ‘The Clearing House,’ <www.chips.org>. See also Scott, ‘The Reduction of Systemic Risk in the United States Financial System,’ 673-75.

⁷⁰ Scott, ‘The Reduction of Systemic Risk in the United States Financial System,’ 673-75.

(TARGET), in Europe.⁷¹ When other firms do not receive payment, they may be in danger of failure as well. Both of these kinds of exposures played a relatively minor role in the financial crisis;⁷² however, another, principal real linkage, that among banks via counterparty risk through derivative contracts, was one of the most consequential during the financial crisis.

In recent years, the relationships among banks have changed and continue to change, often creating potential exposures, where there had been no relationship between the firms before.⁷³ It is not just that major banks are interconnected but that the nature of this interconnectedness is constantly evolving. The over-the-counter (OTC) derivative market grew exponentially up until the crisis, and this market expanded the extent to which banks were linked.⁷⁴ OTC derivatives are characterized by being private, bilateral contracts that are often standardized but allow for a degree of customization, depending on the nature of the transaction.⁷⁵ One important feature of the OTC derivative market is that it involved many different participants, not only including banks but also such entities as insurance companies, a development, which allowed many different market participants to achieve economically similar results to those previously only achievable by banks. This development resulted in a corresponding increase in the complexity of such markets and the number of relevant parties, thereby increasing interconnectedness.⁷⁶

Accordingly, the balance sheets of banks have become increasingly opaque to outsiders not only because the physical assets themselves are hard to evaluate but also because this evaluation is complicated by the use of various financial instruments, such as Asset-Backed Securities (ABSs), Credit Default Obligations (CDOs) and Credit Default

⁷¹ See generally, 'European Central Bank, Trans-European Automated Real-time Gross settlement Express Transfer system TARGET2,' <<http://www.ecb.int/ecb/legal/1003/1349/html/index.en.html>>; See also Cornelia Holthausen & Jean-Charles Rochet, 'Efficient Pricing of Large Interbank Payment Systems.,' *ECB Working Paper* (2002): 7, also available at <www.ecb.int/pub/pdf/scpwps/ecbwp184.pdf>.

⁷² "The U.S. payment and settlement systems continued to function smoothly during the 2007-2008 period of market stress. This owed both to the robustness of the systems' risk management and infrastructure and to the actions by the Federal Reserve (Fed) to sharply increase balances held at the Federal Reserve Banks by financial institutions (reserve balances)." International Monetary Fund Monetary and Capital Markets Department, Financial Sector Assessment Program United States of America: Selected Issues on Liquidity Risk Management in Fedwire Funds and Private Sector Payment Systems Technical Note,' <www.imf.org/external/pubs/ft/scr/2010/cr10122.pdf>, May 2010.

⁷³ Billio, Getmansky, Lo, & Pelizzon, 'Econometric Measures of Systemic Risk in the Finance and Insurance Sectors,' 1-4.

⁷⁴ See Olufunmilayo B. Arewa, 'Risky Business the Credit Crisis and Failure,' 104 *Northwestern Law Review Colloquy* (2010): 398, 399-400.

⁷⁵ See Scott, 'The Reduction of Systemic Risk in the United States Financial System,' 688-90.

⁷⁶ See Whitehead, 'Reframing Financial Regulation,' 20.

Swaps (CDSs), which are often based on “baskets” of assets in the real world.⁷⁷ The irony should not be lost that such instruments, which ostensibly have the function of managing risk portfolios, were themselves a major source of systemic risk.⁷⁸

Informational linkages are theoretically distinct from real exposures, but in reality, the two types of linkages often interact, increasing the speed and severity of the spread of “contagion”. When the public or a market has asymmetric information about the health of a bank, then the result will be an inefficient, volatile equilibrium, based on the information available. Periods of uncertainty lead to asset price fluctuations that cannot be explained through fundamental analyses, meaning that there is no theoretical justification for price fluctuations in terms of valuation. During a so-called “imitative run,” if one firm fails, market participants may use that piece of information about the health of other firms, even when those firms are essentially healthy.⁷⁹ The result is a feedback loop, in which price declines become more and more intense.⁸⁰ Such drastic changes in markets, particularly of the over-night commercial paper, which is the primary source of short-term funding for banks, occurred in 2008.⁸¹ The classic example of such “herd-like” behavior is the depositor run.⁸² Even when an interbank “contagion” is absent, the financial situation of banks will tend to be very sensitive to wider macroeconomic shocks, notably including interest rate hikes or stock market crashes. During such periods, investors demonstrate a degree of irrationality, which is sometimes referred to as a psychological component of a financial crisis.⁸³ To the extent that there is rationality explaining the behavior of investors as they pull money out of financial sector stocks, these investors might understand the macroeconomic shock as an imperfect informational signal about the financial soundness of a given bank.⁸⁴

⁷⁷ See Mülbert, ‘Corporate Governance of Banks,’ 151-6. See also, the Goldman Sachs Abacus transaction subject of SEC settlement as an example. Synthetic CDOs can quickly be created, which can result in much larger losses than the underlying mortgage market itself. This leveraging up resulted in government bailout of IKB Deutsche Industriebank AG. A.I.G. also insured some \$6 billion of these Abacus transactions. Arewa, ‘Risky Business the Credit Crisis and Failure,’ 410.

⁷⁸ See, e.g., Scott, ‘The Reduction of Systemic Risk in the United States Financial System,’ 671.

⁷⁹ See de Bandt & Hartmann, ‘Systemic Risk,’ 18.

⁸⁰ de Bandt and Hartmann distinguish between an efficient and inefficient systemic event. A systemic event is efficient when the market is unaware that an institution is insolvent, new correct information causes its failure, and the new equilibrium reflects the actual health of institutions. Rather, when an “endogenous uncertainty,” which changes investor expectations but does not reflect actual information. de Bandt & Hartmann, ‘Systemic Risk,’ 15, 18.

⁸¹ See discussion of Bear Sterns and A.I.G. Whitehead, ‘Reframing Financial Regulation,’ 22.

⁸² de Bandt & Hartmann, ‘Systemic Risk,’ 23-24.

⁸³ One author notes that, “There is an element of irrationality in the way a crisis unfolds...the terms distress, euphoria, mania, panic have a psychological connection.” Rosa María Lastra, ‘Systemic Risk, SIFIs and Financial Stability,’ *Capital Markets Law Journal* 6, no. 2 (2011): 197-213, 204-5.

⁸⁴ See Abhijit Banerjee, ‘A Simple Model of Herd Behaviour,’ *Quarterly Journal of Economics* 107, no. 3 (1992): 797-811; Sushil Bikhchandani, David Hirshleifer, & Ivo Welch, ‘A Theory of Fads, Fashions,

2.3 The Relationship Between Firm-Level Risk and Systemic Risk

The next section makes several observations about the relationship among different kinds of risk. It attempts to show how corporate governance is relevant to systemic risk and, more broadly, financial risk. First, when a crisis actually occurs, the distinction between firm-level risk and systemic risk will be less important because both kinds of risk will feed into each other. When a firm is highly leveraged, the unexpected correlation of risk portfolios will in effect be amplified, making it more likely that a bank will fail. Its failure will then further exacerbate the severity of the systemic event. Furthermore, in light of the role of informational channels during a crisis, the danger of insolvency will be further exacerbated when a firm is thinly capitalized. Policies designed to ameliorate the debt-overhang problem or misaligned manager incentives will then have a role in ameliorating the worst effects of a systemic event.

However, the feedback relationship between different kinds of risk does not necessarily provide an adequate basis for creating an appropriate policy mix ex ante. It is a somewhat obvious point that highly capitalized firms will be less likely to fail. Such firm-level prudential requirements, however, have necessarily high costs and only operate as a “rough cut” to achieve a certain end. Similarly, corporate governance reforms aimed at managing risk can result in reducing risk too far. Thus, there must be room in the discussion for the regulation of systemic risk, which will have a different set of costs from regulation at the firm level.

With these two previous points in mind, it is important that regulation be designed not to prevent firms from failing but rather to prevent a widespread crisis of confidence, resulting in the failure of the entire financial sector. Risk-taking is necessary for a well operating financial system, in order for banks to provide credit to the rest of the economy. Indeed, the core banking function is risk taking, by lending long-term loans, which are funded by deposits. The provision of credit is a necessary element of the market economy. Thus, idiosyncratic risk taking, which could result in localized financial failure, must remain a reasonable possibility, and even in some circumstances, a desirable one. After a crisis like the one in 2008, downturns or institutional failures may appear to be systemic and needed to

Customs and Cultural Changes as Informational Cascades,’ *Journal of Political Economy* 100 (1992): 992-1026. See also Christopher Avery & Peter Zemsky, Multidimensional Uncertainty and Herd Behavior,’ *American Economic Review* 88, no. 4 (1998): 724-748.

be managed away.⁸⁵ Banking supervisors will ex ante attempt to create rules to prevent bank failures, lest such failure be judged as a failure of banking supervision.⁸⁶ Stringent prudential regulation may have the effect of dampening risk taking to a suboptimal level. However, it must remain the primary policy goal that institutional risk be managed efficiently and not be eliminated. From this perspective corporate governance is attractive because such reforms, if implemented correctly, will alter incentives so that managers conduct an optimal cost-benefit analysis to reach a business plan, ideally taking externalities, even those which are systemic, into account. Indeed, both the Basel Committee on Banking Supervision and the OECD make the observation that sound corporate governance practices will reinforce efficient decision-making and the market economy.⁸⁷ However, in practice, even the best practices probably cannot enable managers to realize the systemic externalities of their actions.

Finally, the most important policy question remains how to regulate at the firm level to address systemic externalities because regulation at the level of the system is confronted by several problems, including the fragmentation of national regulations and the general difficulty for regulators to identify potential problems, when the global financial system is at once so large and complex. With this particular problem in mind, the following sections identify corporate governance reforms that will lower firm-level risk and in some cases, systemic risk as well. Through this policy analysis, the next section explicitly outlines the relationship between corporate governance and systemic risk.

⁸⁵ See Ezra Klein, 'Don't Trust the Regulators: Financial Reform Can't Be left to Those who Failed Us Before,' *Newsweek*, 2 April 2010.

⁸⁶ Bank supervisors will have a "financial stability perspective," meaning their main goal will be to maintain the stability of the financial sector. Mülbart, 'Corporate Governance of Banks,' 164-9. See also Johan Devriese et al., 'Corporate governance, regulation and supervision of banks,' in *Financial Stability Review 2004*, ed. National Bank of Belgium (Brussels: National Bank of Belgium, 2004), 95-120, also available at <http://nbb.be/pub/06_00_00_00_00/06_03_00_00_00/06_03_02_00_00/FSR_20040602.htm?l=en>.

⁸⁷ Basel Committee on Banking Supervision, 'Enhancing corporate governance for banking organisations,' Basel: BIS, < www.bis.org/publ/bcbs168.pdf >, 15 June 2010, 32.

3. Corporate Governance and Systemic Risk Regulation: Corporate Governance Reforms as Responses to Firm-Level Models of Risk

3.1 Enhancing Corporate Governance Mechanisms

Since the financial crisis, lawmakers and international organizations have proposed corporate governance reforms in order to manage better the risks that banks in particular pose to the larger economy. The definition of corporate governance by the Cadbury Commission is a useful starting point: “the system by which companies are directed and controlled.”⁸⁸ More specifically, the OECD Principles for Enhancing Corporate Governance define it as “[involving] a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.”⁸⁹ Most reforms in the following section are related to enhancing traditional corporate governance. These proposals generally either promote better risk management, through, for example creating a board-level risk management committee or alter board member incentives through altering remuneration schemes, by increasing oversight or imposing other substantive rules on compensation. Other reforms envision redesigning the stockholding company, such as through changing rules of limited liability. All the while, the following section considers how reforms could more specifically be tailored for firms in the financial sector. Basic firm-level analyses of externalities create powerful arguments for specific corporate governance reforms, yet these reforms specifically address systemic risk only in a few specific circumstances.

3.1.1 Risk Management

The financial collapse of 2008 has prompted renewed discussion of the importance of board level procedural safeguards, by creating legal rules to promote board level risk-management committees, to require a chief risk officer and to increase board expertise regarding risk-management issues.⁹⁰ In the wake of the Enron and Worldcom scandals in the United States

⁸⁸ *Report of the Committee of the Financial Aspects of the Corporate Governance*, Gee & Co. Ltd., London: 1992, 25.

⁸⁹ OECD, *Principles of Corporate Governance* Paris: OECD, 2004, 1, also available online at <www.oecd.org/daf/corporateaffairs/principles/text>. The Association of Supervisors of Banks of the Americas, for examples, uses this definition. See A.S.B.A., *Corporate Governance in Banking Institutions*, <www.asbaweb.org/Grupos/libros/fscommand/G5-ing.pdf>, 2009, 12.

⁹⁰ See Mülbart, ‘Corporate Governance of Banks,’ 171.

and the Parmalat and Ahold failures in Europe, all of which largely resulted from major deficiencies in board-level oversight,⁹¹ several major corporate governance reforms resulted, of which new rules regarding independence of committee members were a major feature.⁹² Despite these reforms aimed at fixing corporate governance, oversight failed again during the financial crisis, and accordingly there have been renewed efforts to establish risk management procedures for banks,⁹³ especially with respect to the development of international standards for risk management.⁹⁴ These requirements run parallel to substantive rules regulating risk management, such as leverage requirements or the use of statistical methods,⁹⁵ such as VaR, to provide hard limits on the risk appetite of a given firm.⁹⁶

At the international level, there has been much discussion regarding how the corporate governance procedures of banks can be used to improve risk management and thereby promote financial stability. The Basel Committee on Banking Supervision's report on corporate governance of 2010 emphasizes the importance of risk-management procedures, particularly focusing on the importance of "an effective internal controls system and a risk management function (including a chief risk officer or equivalent) with sufficient authority, stature, independence, resources and access to the board."⁹⁷ The OECD makes similar conclusions that such procedures, especially a chief risk officer, are necessary, but it also

⁹¹ 'Report of investigation by the special investigation committee of the board of directors of Enron Corp, William C. Powers Jr. et. al.,' <<http://news.findlaw.com/wp/docs/enron/specinv020102rpt1.pdf>>, 2002. See also Robert Eil Rosen, 'Risk Management and Corporate Governance: The Case of Enron,' *Connecticut Law Review* 35, no. 1157 (2003), also available at <<http://ssrn.com/abstract=468168>>. The wake of the Enron and Worldcom failures, in the United States, and the similar Parmalat and Ahold scandals in Europe, had an important effect on the international corporate governance discussion. See OECD, 'The Corporate Governance Lessons of the Financial Crisis,' 3.

⁹² The major reform in the United States was Sarbanes Oxley. § 301 requires audit committee independence, while section 407 requires certain periodic reports. Similarly, Section 303A of the NYSE's listed company manual creates specific requirements for audit committees, including independence and financial knowledge. For the E.U. see Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006, *OJ C* 157 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC.

⁹³ See, generally OECD, 'Corporate Governance and the Financial Crisis: Key Findings and Main Messages,' <www.oecd.org/dataoecd/3/10/43056196.pdf>, June 2009.

⁹⁴ OECD Steering Committee on Corporate Governance, 'Corporate Governance and the Financial Crisis,' 14.

⁹⁵ The European Union, for example, is requiring member states to implement revisions to regulations regarding substantive risk rules. See recitals 34, 35 of the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies. See also Peter Mülbart, & Alexander Wilhelm, 'Reforms of EU Banking and Securities Regulation after the Financial Crisis,' *Banking & Finance Law Review* 187 (2011): 205-206.

⁹⁶ See Mülbart, 'Corporate Governance of Banks,' 171-2.

⁹⁷ Basel Committee on Banking Supervision, 'Principles for Enhancing Corporate Governance,' 17.

emphasizes the importance risk management be done on an enterprise-wide basis, while not entirely eliminating risk-taking.⁹⁸

The European Commission Green Paper on corporate governance in financial institutions and remuneration policies outlines the perceived inadequacies of board-level risk management, in particular, “a lack of understanding of risks,” “a lack of authority...to be able to curb activities of risktakers,” “ a lack of expertise...in risk management,” and “a lack of real-time information on risks.”⁹⁹ As a consequence, the Green Paper envisages the following recommendations with regard to risk management: delineating board level responsibilities, creating a board-level risk supervision committee and particular a chief risk management officer, requiring familiarity with the “organizational complexity” of the relevant firm, and finally, increasing cooperation not only between relevant supervisor authorities and boards of directors but also between the risk committee and other parts of the firm.¹⁰⁰

In the United States, corporate governance reforms were also a part of financial reform. The Dodd-Frank Act requires that institutions, which are either systemically important publicly traded non-bank financial companies or publicly-traded bank holding companies with total consolidated assets of over \$10 billion, to have a risk committee.¹⁰¹ It also grants the Federal Reserve the power to require publicly traded bank holding companies with assets of less than \$10 billion “to promote sound risk-management requirements.”¹⁰² Such committees must have at least one member who is an expert with “experience in risk management at large complex companies.”¹⁰³ The exact implementation these requirements will depend on promulgated regulations by the Federal Reserve.

At least with respect to the implementation of risk-management committees and/or chief risk officer, and the inclusion of board members with diverse expertise, the financial crisis showed that such procedural safeguards did indeed matter. The report of the Senior Supervisor’s Group, prepared by representatives of the Federal Reserve Board, the Securities and Exchange Commission, as well as several regulators from the United Kingdom, France, Switzerland and Germany, although acknowledging that firm-specific qualities, such as risk

⁹⁸ OECD Steering Committee on Corporate Governance, ‘Corporate Governance and the Financial Crisis’ 15.

⁹⁹ European Commission, ‘Green Paper on Corporate governance in financial institutions and remuneration policies,’ COM 284 (2010), <http://ec.europa.eu/internal_market/company/docs/modern/com2010_284_en.pdf>, 7.

¹⁰⁰ European Commission, Green Paper, 11-14,.

¹⁰¹ Dodd-Frank Act § 165h, 12 U.S.C. § 5365 (2010).

¹⁰² Dodd-Frank Act § 165hB2, 12 U.S.C. § 5365 (2010).

¹⁰³ Dodd-Frank Act § 265hC3, 12 U.S.C. § 5365 (2010).

appetite or business strategy are also important, concluded that certain risk management practices differentiated firm performance during the crisis.¹⁰⁴ Most importantly, the firms that fared the best were ones with senior management oversight of risk, in the form of a high-level committee, which served as a locus for sharing information and understanding the magnitude of risks facing the firm.¹⁰⁵ These firms had management teams with prior experience in capital markets, which leads the authors to emphasize that senior management should “include people with expertise in a range of risks since the source of the next disruption is impossible to predict.”¹⁰⁶ Indeed, in a study of 60 global financial firms, Ernst & Young found that, in the wake of the crisis, banks are taking care to improve corporate governance mechanisms with respect to risk management, especially increasing board oversight and the responsibilities of a chief risk officer, but the successful implementation of such policies requires “deep cultural transformation.”¹⁰⁷

While it is fairly clear that risk management practices mattered during the financial crisis, it is less clear how well even the best risk-management team could prevent a firm from suffering from a systemic event, especially when substantive regulations of the risk appetite of the bank fails. In some ways these best practices directly confront systemic risk, if those in management had understood how certain practices amplified danger to the firm. Particularly the Senior Supervisors report cites how firm risk management did not clearly understand how complex financial instruments affected the risk portfolio of banks.¹⁰⁸ CDO's should, for example, help firms diversify risk, but their role in systemic risk is much more complicated. Particularly, it has been shown how tranches (subordination of claims) in such instruments reshuffles risk so that the effect can be to concentrate risk.¹⁰⁹ This kind of risk is manageable at the firm level, if those in charge know the potential problems associated with such instruments, particularly in a crisis scenario. Similarly, firms' use of VaR did not anticipate the co-movement of asset prices during a crisis, nor did firms realize that the

¹⁰⁴ Senior Supervisor's Group, Observations on Risk Management Practices During the Recent Market Turbulence, < www.financialstabilityboard.org/publications/r_0804.pdf >, 6 March 2008, 8.

¹⁰⁵ *Ibid.*, 1-2, 6-10. See also James A. Fanto, 'The Role of Financial Regulation in Private Financial Firms: Risk Management and the Limitations of the Market Model,' 3 *Brooklyn Journal of Corporate, Financial & Commercial Law* 29 (2008).

¹⁰⁶ Senior Supervisor's Group, 'Observations on Risk Management,' 8.

¹⁰⁷ See Ernst & Young, Making Strides in Financial Services Risk Management, 2010, 1.

¹⁰⁸ *Ibid.*, 12-14.

¹⁰⁹ Jan Pieter Krahen & Christian Wilde, 'Risk Transfer with CDOs and Systemic Risk in Banking' CFS Working Paper No. 2006/04; EFA 2007 Ljubljana Meetings Paper, <<http://ssrn.com/abstract=889541>>, 5 June 2006.

widespread use of such a model would in itself have consequences for systemic risk, yet some firms used VaR more sophisticatedly than others.¹¹⁰

It is also apparent that substantive rules to limit the risk taking of firms—the CSE program comes to mind—failed to provide hard limits on the risk-taking strategies of firms.¹¹¹ With this regulatory failure in mind, corporate governance can serve as a useful backstop, especially since such corporate governance mechanisms of oversight had a cognizable effect on firm performance.¹¹² Firm corporate governance had an effect on how linkages would operate during a systemic event. If firms conducted such practices in the aggregate, then the performance of the financial sector as a whole would ostensibly be better, yet it is also important to recognize that risk-management will not eliminate systemic risk, to the extent that managers cannot be all-knowing monitors of a world of complex risk interaction.

3.1.2 Remuneration

It is unsurprising that a large portion of the policymaking discussion has focused on board remuneration,¹¹³ given the emphasis of commentators, politicians, and academics alike on exorbitant levels of compensation of firm executives, who later received government bailouts. The next section analyzes these reforms, highlighting several general categories of reform: altering of the structure of compensation to give executives incentives aligned with the long-term interests of the firm, changing governance mechanisms, through, for example, the creation of a remuneration committee, limiting the absolute amount of compensation, allowing shareholders a “say on pay,” and finally, increasing transparency requirements. These policy reforms ideally will alter compensation schemes so that executives will have the proper incentives to lessen the firm’s risk profile and thereby, promote financial stability.

At the international level, there has been a wide-ranging discussion with regard to executive remuneration of executives and board members of banks. Following a request of

¹¹⁰ Senior Supervisor’s Group, ‘Observations on Risk Management,’ 14-16.

¹¹¹ The SEC’s implementation of Basel II permitted American investment banks to become very highly leveraged. See Scott, ‘The Reduction of Systemic Risk in the United States Financial System,’ 672-76.

¹¹² See *Ibid.*

¹¹³ See, generally, ‘FSB Principles for Sound Compensation Practices,’ <www.financialstabilityboard.org/publications/r_090925c.pdf>, 25 September 2009, 1; Committee of European Banking Supervisors, ‘Guidelines on Remuneration Policies and Practices,’ <www.eba.europa.eu/Publications/Standards-Guidelines.aspx>, 10 December 2010; Basel Committee on Banking Supervision, ‘Compensation Principles and Standards – Assessment Methodology,’ Basel: BIS, <<http://www.bis.org/publ/bcbs166.htm>> January 2010; OECD, *Principles of Corporate Governance*. See also Mühlbert, ‘Corporate Governance of Banks,’ 174-180.

the G20 for the Pittsburgh Summit on September 24/25, 2009, the Financial Stability Board prepared the FSB Principles of Sound Compensation Practices which set ground-breaking internationally agreed minimum standards.¹¹⁴ The European Commission established a High Level group chaired by Jacques de Larosière, specifically to offer recommendations for revising European banking regulation and remuneration policies.¹¹⁵ Since then, the European Union adopted Directive 2010/76/EU (“CRD III”) amending the Capital Requirements Directive (“CRD”) to require the implementation of remuneration policies by member states.¹¹⁶ As a follow-up the former Committee of European Banking Supervisors (CEBS)¹¹⁷ issued guidelines, which contain some more detailed policies for how these more general requirements in the directive could be carried out by member states.¹¹⁸

The most important category of remuneration reforms includes those, which alter the structure of compensation to give boards better incentives by linking pay with performance more closely. In line with one of the de Larosière report’s general propositions that, “bonuses should reflect actual performance and not be guaranteed in advance”,¹¹⁹ CRD III requires that performance assessment consists of a combination of individual and firm-wide performance criteria, include an adjustment for current and future risks, and generally is “consistent with and promotes sound and effective risk management.”¹²⁰ In the United States, Dodd-Frank requires that firms disclose how compensation is related to firm performance, including changes in the value of shares, dividends and distributions.¹²¹ Federal regulators also must promulgate regulations to require covered firms to report incentive structures and to prohibit incentive structures that encourage excessive risk taking.¹²²

More specifically, reforms aim to address the perceived short-termism and leveraging effects of incentive structures, composed of stock and options. CRD III requires that, “the assessment process is based on longer-term performance and that the actual payment of performance-based components of remuneration is spread over a period which takes account

¹¹⁴ FSB, ‘Principles for Sound Compensation Practices.’

¹¹⁵ See generally, the Larosière Report. For background information on the Larosière Group, see Mülbert & Wilhelm, ‘Reforms of EU Banking and Securities Regulation after the Financial Crisis,’ 197.

¹¹⁶ Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC. As to the CRD III’s provisions on remuneration policies see also Mülbert & Wilhelm, ‘Reforms of EU Banking and Securities Regulation after the Financial Crisis,’ 187.

¹¹⁷ As of January 1, 2011, CEBS has become the European Banking Agency EBA.

¹¹⁸ CEBS, ‘Guidelines on Remuneration Policies and Practices.’

¹¹⁹ Larosière Report, 31.

¹²⁰ Annex I 1 to the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies amending Annex V to the Directive 2006/48/EC CRD I by adding a Section 11. REMUNERATION POLICIES Point 23 a.

¹²¹ Dodd-Frank Act § 953a, 15 U.S.C. § 78n (2010).

¹²² Dodd-Frank Act § 956b, 12 USC § 5641 (2010).

of the underlying business cycle of the credit institution and its business risks.”¹²³ More specifically, CRD III mandates that compensation in the form of shares or options based on share price movements should not vest for three years, and after vesting, directors should hold a number of those shares until their mandate at the firm ends. CRD III also requires that at least 40% of variable compensation (and 60% when the compensation is particularly “high”) be deferred. Additionally, those firms should disclose adequate information in regard to the scope and decision-making process that led to the particular compensation structure.¹²⁴

CEBS emphasizes that remuneration should be risk-adjusted, which means that bonus packages, for example, can be adjusted after the fact. Such a policy would mean that if an executive receives compensation solely on the basis of short-term results, then the firm should be able to claw back his compensation.¹²⁵ CEBS also suggests that severance pay not be designed to reward failure.¹²⁶ With these problems in mind, the de Larosière report, for example, proposes that bonuses be paid out over a five-year period, not only for management but also for all asset managers and proprietary managers.¹²⁷

To the extent that remuneration policies had overly given executives incentives to take too much risk to get short-term benefits, this category of remuneration reform has the potential to solve agency conflicts related to executive incentives, which is a major source of excessive firm-level risk taking. Besides the aggregation of firm risk, these policies may have some effect on systemic risk, but only to the degree that better structured compensation tempers business strategies in the boom before the bust happens. It is an open question, however, if market frenzies related to any asset are related to aggregate approaches to incentive structures or whether such booms are rather certain fundamental aspects of human behavioral psychology. Suffice it to conclude that it makes little sense for compensation policy to add incentives to drive up prices in the short-term, contributing to overvaluation of underlying assets.

¹²³ Annex I 1 to the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies amending Annex V to the Directive 2006/48/EC CRD I by adding a Section 11. REMUNERATION POLICIES Point 23 h.

¹²⁴ Annex I 5 b iii to the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies amending Annex XII to the Directive 2006/48/EC CRD I by amending Part 2 by adding Point 15.

¹²⁵ CEBS, ‘Guidelines on Remuneration Policies and Practices,’ 66-68.

¹²⁶ *Ibid.*, 42.

¹²⁷ *Ibid.*, 30-31. For an alternative proposal to “block” the vesting of shares and options, See Lucian A Bebhuk & Jesse M. Fried, Paying for Long-Term Performance, *University of Pennsylvania Law Review* 158 (2010): 1915-1959, also available at <<http://ssrn.com/abstract=1535355>>, 9, 17. See also Lo, Written Testimony, Hearing on Compensation Structures and Systemic Risk,’ 3.

Other proposals attempt to improve efficacy of compensation governance mechanisms, to ensure that the negotiation of compensation schemes are conducted at arm's-length so that executives are not overly influencing the deliberation process, thereby promoting "optimal contracting." Already in 2006, the recast Banking Directive (part of "CRD I") emphasized the need for a credit institution to have mechanisms in place to avoid conflicts of interest.¹²⁸ With this in mind, CRD III sets out to give incentives credit institutions to achieve this goal, for example, by using supervisory boards and/or external experts.¹²⁹ Credit institutions that are significant in terms of their size, internal organization and the nature, scope and complexity of their activities shall be required to have a remuneration committee.¹³⁰ The chair and members of the committee should be members of the management body, who do not perform any executive function.¹³¹ Further, the remuneration committee shall directly oversee remuneration policy, and compensation must be subject annually to an independent, internal review.¹³² CEBS proposes that internal management body periodically review remuneration policies to make sure they do not conflict with the given firm's risk-management strategy. The supervisory board or a compensation board that is part of the Board of Directors should take on this task.¹³³ OECD also emphasizes that the board of directors should be responsible for monitoring remuneration policies, and there should be policies to ensure that negotiations are conducted at arm's length.¹³⁴ Along these lines, the FSB emphasizes that a remuneration committee should cooperate with the firm-risk management committee to formulate sound practices.¹³⁵

In line with recommendations by many commentators, the United Kingdom, Germany¹³⁶ and the United States have introduced shareholder "say on pay" regimes, in order

¹²⁸ Annex V 1 to the Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions recast, *O.J.* 2006 L 177/1.

¹²⁹ Annex I 5 b iii to the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies amending Annex XII to the Directive 2006/48/EC by amending Part 2 by adding Point 15.

¹³⁰ Annex I 1 to the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies amending Annex V to the Directive 2006/48/EC by adding a Section 11. REMUNERATION POLICIES Point 24.

¹³¹ *Ibid.*

¹³² Annex I 1 to the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies amending Annex V to the Directive 2006/48/EC by adding a Section 11. REMUNERATION POLICIES Point 23 d, f.

¹³³ CEBS, 'Guidelines on Remuneration Policies and Practices,' 28-29.

¹³⁴ OECD Steering Committee on Corporate Governance, 'Corporate Governance and the Financial Crisis,' 8.

¹³⁵ FSB, 'Principles for Sound Compensation Practices,' 2.

¹³⁶ Sec. 1204 of the Stock Corporation Act.

to align interests of executives and shareholders. For banks, such alignment can be problematic because shareholders, as noted in this paper, may themselves cause the firm to take on too much risk.¹³⁷ Nonetheless, both the European Commission Green Paper (citing the European Commission's recommendations on remuneration) and the Dodd-Frank law are in favor of such votes.¹³⁸ While CRD III does not mention say on pay, the European Commission recommendation supports shareholders, and especially institutional shareholders' use of their voting power regarding compensation,¹³⁹ and the CEBS guidelines note that shareholders "may" have a role in remuneration policies.¹⁴⁰ Dodd-Frank also gives shareholders the opportunity at regular intervals to have a non-binding vote on executive pay packages as well as golden parachutes given to executives after an M&A transaction.¹⁴¹

It is not clear that either reformed compensation committees or shareholder say on pay¹⁴² will successfully lower firm-level risk, let alone systemic risk. At the very least, it is not analytically clear how such requirements will make banks less likely to impose costs on third parties, when neither procedural device does much in the way of the reduction of externalities. Indeed, shareholders, in particular, have incentives to take on too much risk.

Finally, various reforms have highlighted the need for increased transparency of remuneration packages, with the hope that such transparency would provide some oversight mechanism for the structure and content of remuneration packages. Although disclosure might give stakeholders the needed information to perform oversight, such disclosure also can increase compensation because such disclosed compensation will become the benchmark in negotiations, resulting in a continual levering up of payments.¹⁴³ Nevertheless, the Financial Stability Board recommends aggregate disclosure of remuneration, "broken down by senior executive officers and by employees whose actions have a material impact on the risk exposure of the firm," which should include the relative amounts of fixed and variable

¹³⁷ See Bebchuk & Spamann, 'Regulating Bankers' Pay,' 255-57. See also Jeffrey N. Gordon, 'Say on Pay': Cautionary Notes on the UK Experience and the Case for Shareholder Opt-In,' *Columbia Law School Working Paper No. 343* (2009) <<http://ssrn.com/abstract=1331482>>.

¹³⁸ European Commission Green Paper, 10; Dodd-Frank Act § 951, 15 U.S.C. § 78n (2010).

¹³⁹ European Commission Recommendation of 30 April 2009 on remuneration policies in the financial services sector 2009/384/EC L 120/22.

¹⁴⁰ CEBS, 'Guidelines on Remuneration Policies and Practices,' 30.

¹⁴¹ Dodd-Frank Act § 951, 15 U.S.C. § 78n (2010).

¹⁴² Given the UK experience, the effectiveness of a non-binding shareholder vote in curbing remuneration excesses is doubtful, at best. See e.g., Brian Cheffins, 'Did Corporate Governance 'Fail' During the 2008 Stock Market Meltdown? The Case of the S&P 500,' 41 *ECGI Law Working Paper No. 124/2009*, July 2009, <http://ssrn.com/abstract=1396126>; Jeffrey N. Gordon, 'Say on Pay': Cautionary Notes on the UK Experience and the Case for Shareholder Opt-In,' *Columbia Law School Working Paper No. 343* August 2009, <<http://ssrn.com/abstract=1331482>>.

¹⁴³ See e.g., Jane Craighead, Michel Magnan & Linda Thorne, 'The Impact of Mandated Disclosure on Performance-Based CEO Compensation.,' *Contemporary Accounting Research* 21, no. 2.

compensation, deferred compensation, and severance packages.¹⁴⁴ The Basel Committee on Banking Supervision in consultation with FSB is considering requiring disclosure of certain aspects of a firm's remuneration policy as a part Pillar 3 of Basel II. These requirements would include a "description of the different forms of variable remuneration that the bank utilises and the rationale for using these different forms" in addition to total bank-wide remuneration, including disclosure of total bonus, severance payments and variable and deferred compensation.¹⁴⁵ Somewhat differently, CRD III requires disclosure of the "aggregated amounts for those members of staff whose professional activities have a material impact on the risk profile of the credit institution or investment firm."¹⁴⁶ The directive also states that supervisory authorities "should collect information on remuneration to benchmark remuneration trends."¹⁴⁷ The Dodd-Frank Act requires that financial companies disclose aggregate amounts of compensation of all employees besides the CEO, the compensation of the CEO, and the ratio between the CEO's salary to the median income of an employee in that firm. Even if these disclosures do not have the effect of ratcheting up compensation, there is little evidence that the market will discipline firms to have more reasonable compensation schemes.¹⁴⁸ The obvious theme, lurking not very far in the background, is the public outrage over executive compensation in the aftermath of massive public bailouts.¹⁴⁹

Somewhat more promising are those disclosure requirements that reinforce arm's-length negotiation of remuneration packages. The FSB requires disclosure of "the most important design characteristics of the compensation system, including criteria used for performance measurement and risk adjustment, the linkage between pay and performance, deferral policy and vesting criteria, and the parameters used for allocating cash versus other forms of compensation."¹⁵⁰ The Basel Committee on Banking Supervision heavily emphasizes such disclosure, proposing rules, which would require information related to composition and function of remuneration supervisory bodies and the design and structure of remuneration

¹⁴⁴ FSB, 'Principles for Sound Compensation Practices,' 4-5

¹⁴⁵ Basel Committee on Banking Supervision, 'Consultative Document, Pillar 3 Disclosure Requirements for Remuneration,' Basel:BIS, <www.bis.org/publ/bcbs191.htm>, 25 December 2010, 9.

¹⁴⁶ Recital 21 of the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies. See also Mülbert & Wilhelm, 'Reforms of EU Banking and Securities Regulation after the Financial Crisis,' 206-207.

¹⁴⁷ Recital 18 of the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies.

¹⁴⁸ Dodd-Frank Act § 943a, 15 USC § 78o-7 (2010).

¹⁴⁹ See e.g., Scott Colesanti, 'Laws, Sausages and Bailouts: Testing the Populist View of the Causes of the Economic Crisis,' *Brooklyn Journal of Corporate, Financial & Commercial Law* 4 (2010): 175; Adam J. Levitin, 'In Defense of Bailouts,' *Georgetown Law Journal* 99 (2011): 435.

¹⁵⁰ FSB, 'Principles for Sound Compensation Practices,' 4

processes. The committee also would require descriptions of how current and future risks are measured in remuneration decisions, how performance is linked to performance, and how the firm's long-term performance is taken into account in such decisions.¹⁵¹ CRD III already requires that, "institutions and investments firms should disclose detailed information on their remuneration policies, practices and, for reasons of confidentiality."¹⁵² Similarly, the Dodd-Frank Act requires that the SEC promulgate rules to require firms to explain the relationship between compensation and performance.¹⁵³ Even if these requirements do not ensure arm's-length bargaining, they do force banks to state their reasoning for a given compensation policy, which could improve the process of negotiation.

With the role of internal oversight (boards, remuneration committees, shareholders' say on pay) and of external oversight (disclosure to the market) in mind, the role of financial supervisors and regulators in the negotiation of compensation packages remains an open question. In a rather unique situation, several governments put hard limits on the compensation packages of executives of firms that received a government bailout.¹⁵⁴ Based on the problems experienced then, CRD III requires with a view to futures crisis that member states have in place a specific remuneration regime for credit institutions that benefit from exceptional government intervention, providing, *inter alia*, for the possibility of a supervisor's direct intervention as to the structure of remuneration and the total amount paid.¹⁵⁵ Outside of this extraordinary circumstance, supervisors should regulate the process of negotiation and the implementation fully risk-adjusted remuneration schemes. CRD III requires member states to grants "competent authorities [...] the power to impose either financial or non-financial measures or penalties for breach of a requirement under Directive 2006/48/EC, including the requirement to have remuneration policies that are consistent with sound and effective risk management."¹⁵⁶ CEBS proposes guidelines for banking supervisors

¹⁵¹ Basel Committee on Banking Supervision, 'Consultative Document, Pillar 3 Disclosure Requirements for Remuneration,' 9.

¹⁵² Recital 21 of the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies.

¹⁵³ Dodd-Frank Act § 953a, 15 U.S.C. § 78n, (2010).

¹⁵⁴ See, e.g., Section 111e "Shareholder Approval of Executive Compensation" and Section 111b4 "Certification on Compliance" of the Emergency Economic Stabilization Act of 2008 "EESA", as revised by the American Recovery and Reinvestment Act of 2009 "ARRA".

¹⁵⁵ Annex I 1 to the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies amending Annex V to the Directive 2006/48/EC CRD I by adding a Section 11. REMUNERATION POLICIES Point 23 k.

¹⁵⁶ Recital 15 of the Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies,.

with regard to remuneration to implement CRD III, emphasizing how supervisors should review the corporate governance practices of banks.¹⁵⁷ Dodd-Frank requires that the SEC promulgate regulations requiring national exchanges and associations to ensure the independence of members of compensation committees; the SEC is specifically required to promulgate factors, which reflect independence of board members.¹⁵⁸ In contrast, Bebchuk and Spamann, for example, argue that the government has a role in regulating the compensation schemes of systemically important financial institutions.¹⁵⁹

3.2 Redesigning Corporate Governance Mechanisms

This section considers how to redesign the corporate form in more radical terms with the purpose to promote financial stability and (perhaps) reduce systemic risk. These reforms include those that potentially alter some of the basic architecture of the modern company. The following section considers changing director and officer duties to include a wider array of concerns, including financial stability, and it then analyzes potential changes to the limited liability of the stockholding company.

3.2.1 Refocusing the Duties of Board Members/Officers

If the problem with banks in general is that shareholders have incentives to make a firm too risky, then rules designed to maximize shareholder value will not be adequate. From this perspective, the re-orientation of the duties of officers and board members, e.g., to take depositors' interests into account lessen firm-level risk taking and promote general financial stability. The logical conclusion of the imposition of such duties would be the imposition of direct liability towards depositors on directors and officers for their failure to meet these duties.¹⁶⁰ The effects of this solution would depend largely on whether changing the explicit duty will make any practical difference for the firm or the financial sector as a whole.

The European Commission's Green Paper considers whether, "the creation of a

¹⁵⁷ CEBS, 'Guidelines on Remuneration Policies and Practices,' 36.

¹⁵⁸ Dodd-Frank Act § 952, 15 U.S.C. § 78j-3 (2010).

¹⁵⁹ Bebchuk & Spamann, 'Regulating Bankers' Pay,' 282-86.

¹⁶⁰ In the same sense, but strongly opposed to creating such a direct liability-rule in favor of depositors and debtholders Marco Buschmann, 'EG-Grünbuch zur Corporate Governance: Alter Wein in neuen Schläuchen?' *Neue Zeitschrift für Gesellschaftsrecht* 14 (2011): 87-90 (Buschmann is a Member of the German Parliament).

specific duty for the board of directors to take account of the interests of depositors and other creditors in their decision-making ('duty of care') could help encourage the board of directors to adopt less risky strategies and improve the quality of the financial institution's long-term risk management."¹⁶¹ Such an extension of the duty of care would also theoretically lower the risk-taking of the firm, since creditors only want their fixed return and will receive no upside of risk taking. However, it is exactly for this reason why this solution is problematic: company law does not endow bondholders with control of the generic firm because they will seek too little risk. This will be particularly problematic because the financial sector's credit-giving function depends on an efficient cost-benefit analysis of risk.

While a duty to either depositors or to creditors as a whole could change the business strategies of firms, thereby lowering the aggregate risk taking in the financial sector, such solutions would do little to reduce systemic risk. It is doubtful that duties towards depositors or creditors—both of whom potentially receive explicit or implicit government guarantees—would make directors or board members ex post liable for most failures in identifying the correlative and interlocking dangers of the financial sector. It is questionable how a court could make such a determination. Further, unless duties to shareholders were eliminated, directors and board members would always have to balance different interests, making the likelihood of robust ex post judicial review difficult and unlikely. Indeed, German banks as stockholding companies are arguably subject to such a stakeholder regime.¹⁶² Nevertheless, anecdotal evidence from the current financial crisis strongly suggests that, all in all, German listed banks did not fare any better than their competitors in the UK or even Switzerland. The theoretical argument for preferring a monistic corporate goal is very well-known: Stakeholder supremacy allows directors/officers an unbridled pursuit of their own interests in the guise of balancing the interests of different stakeholders.

Alternatively, director duties could be widened even further so that they must consider some elements of financial stability as a whole.¹⁶³ It seems rather doubtful that board members or directors intentionally pursued business strategies at the expense of the (global) financial system. Again, it is difficult to imagine after the fact, how a court would

¹⁶¹ European Commission Green Paper, 12. See also Mülbart, 'Corporate Governance of Banks,' 182-3.

¹⁶² See, e.g., Uwe Hüffer, *Aktiengesetz*, 8th ed. (München: C. H. Beck, 2008), § 76 n. 12a et seq.; but see also Peter O. Mülbart, 'Shareholder Value aus rechtlicher Sicht,' *ZGR* (Zeitschrift für Unternehmens- und Gesellschaftsrecht) 26 (1997): 147-156; same, 'Soziale Verantwortung von Unternehmen im Gesellschaftsrecht,' *AG* (Die Aktiengesellschaft) 54 (2009): 770-772.

¹⁶³ Lars Böttcher, 'Bankvorstandshaftung im Rahmen der Sub-Prime Krise,' *Neue Zeitschrift für Gesellschaftsrecht* 12 (2009): 1050-1051 (claiming such a duty to form part of the existing directors' duties of care).

determine objectively that directors did not take adequate consideration of financial stability. One solution could be a kind of “embedded co-regulation,” by which the financial industry would promulgate rules for itself along the lines of the NASD.¹⁶⁴ Perhaps those rules or others provided by regulatory agencies could serve as objective criteria to decide if managers had satisfied their duties. However, from a systemic risk perspective, for the reasons already given, e.g., because of the inherent difficulties to identify the correlative and interlocking dangers of the financial sector it is unlikely that the foresight of management teams or boards will have much of an impact.

3.2.2 Altering Limited Liability and Creating New Liability Rules

Alternatively, the basic liability structure of the stockholding company could be altered, with the aim to resolve agency conflicts, possibly reduce systemic risk and thereby promote financial stability. This restructuring of liability for systemically important firms could either take the form of eliminating the limited liability of shareholders, or requiring certain other groups to provide funding, in lieu of a government bailout in the event of a systemic event, or, even better, before such an event were to occur.

Bondholders are an obvious candidate for liability, who with altered incentives, might offer adequate oversight over banks. Indeed, bondholders will have strong incentives to monitor a highly leveraged firm, especially as that firm comes closer to insolvency, i.e., “skating on thin ice.”¹⁶⁵ However, bondholders will provide less-than-optimal oversight. First, a feature of a systemic event is the speed by which liquidity can disappear. As firm outsiders, bondholders will probably not be able to predict this kind of radical swing in firm fortune. Secondly, as long as systemically important institutions (SIFIs) exist, they will often benefit from explicit state guarantees, and, regardless of the explicit regulatory policy, if too many firms fail, the government will provide a bailout in times of crisis, so that bondholders will not bear the full costs of an overly risky strategy.¹⁶⁶

The upshot is that unless a bank is near insolvency bondholders will have relatively few incentives to monitor risk strategies, and being outsiders makes it even more difficult to

¹⁶⁴ Saule T. Omarova, ‘Rethinking the Future of Self-Regulation in the Financial Industry,’ *Brooklyn Journal of International Law* 35, no. 3 (2010): 665, 2010, also available at <<http://ssrn.com/abstract=1695031>>.

¹⁶⁵ See Michael C. Jensen, ‘Agency Costs of Free Cash Flow, Corporate Finance and Takeovers,’ *American Economics Review* 76 (1986): 323; Michael C. Jensen, ‘Eclipse of the Public Corporation,’ *Harvard Business Review* Sept.-Oct., (1989): 61. See also Frank H. Easterbrook, ‘High-Yield Debt as an Incentive Device,’ *International Review of Law & Economics* 11 1991: 183; Albert Bandura & Dale H. Schunk, ‘Cultivating Competence, Self-Efficacy, and Intrinsic Interest Through Proximal Self-Motivation,’ *Journal of Personality and Social Psychology* 41 (1981): 586, 587, 593-94.

¹⁶⁶ See e.g., Bebchuk & Spamann, ‘Regulating Bankers’ Pay,’ 266-67.

monitor the complex interconnectedness of banks. From a corporate governance perspective, it could be possible to give bondholders some direct control in the firm, by, for example, giving them a vote on board members. However, such a strategy will suffer from the same problem of sub-optimally low risk taking discussed above.

A more promising solution could be to change the liability rules for shareholders. As observed above, the provision of limited liability increases a firm's appetite for risk, especially in the case of banks. A new shareholder liability regime for systemically important banks would result in shareholders being liable for more than their equity contribution. A simple version of this proposal would be to make systemically important firms partnerships with unlimited liability, so that the partners would be personally liable for the debts of the firm.¹⁶⁷ A problem with this risk reduction strategy is that it might increase the cost of capital for the firm, and the plan's effectiveness would depend on the ability of the partners to pay the obligations of the given firm.

However, if these two problems were overcome, partners would have powerful incentives to limit the risk appetite of the firm, yet even this radical solution would probably limit systemic risk only to the extent that firm-level risk would be lowered. The radical reduction of firm-level risk, however would have powerful effects on systemic risk. In this scenario, of course, it would be likely that firms would take radically much less risk with much less capital, which would likely eliminate many systemic risk concerns but at perhaps at very high costs, especially for large bank holding companies with a retail depositor component.

More realistically, the risk appetite of banks could be tempered through the mandatory use of convertible bonds as a fixed portion of capital. These bonds will automatically convert to equity when the systemically important financial institution's capital levels fall below a certain level, thereby reducing the value of the instrument and diluting shareholder claims. Through this financial instrument, the incentive structure of shareholders and bondholders would ostensibly be altered. Bondholders would have a much stronger incentive to oversee the firm's actions, lest their debt claims be converted to equity, but this oversight mechanism would suffer the same flaws as bondholder oversight generally.¹⁶⁸ At the same time, shareholders would also face the risk of dilution and thus perform their oversight function more rigorously. In fact, the Swiss financial regulatory

¹⁶⁷ Indeed, until the 1990s the major US investment banks were organized as general partnerships, which meant that the partners were exposed to the partnership's liability.

¹⁶⁸ See *supra* notes 160, 161, 162.

reform proposal includes exactly such a requirement for systemically important banks.¹⁶⁹ However, the main problem with this approach is that the costs of raising such instruments are unclear, and accordingly it is difficult to analyze how the costs and benefits of such a scheme are related.¹⁷⁰

¹⁶⁹ Admittedly, the wording of the draft provision amending the Banking Act (“Bankengesetz”) does not require banks to issue mandatory convertible bonds (see the proposed now Sect. 11(1)(1)(b) of the Bankengesetz) but according to the Swiss government’s official interpretation, systemically important banks must have such instruments in place. See Botschaft zur Änderung des Bankengesetzes (Stärkung der Stabilität im Finanzsektor; too big to fail) of 20.4.2011 Section 2.1.4.3.2 <<http://www.efd.admin.ch/dokumentation/gesetzgebung/00570/02265/index.html?lang=de>>.

¹⁷⁰ For a full discussion, arguing in favor of convertible contingent bonds, see John C. Coffee, ‘Bail-Ins Versus Bail-Outs: Using Contingent Capital to Mitigate Systemic Risk,’ *Columbia Law and Economics Working Paper No. 38*, <<http://ssrn.com/abstract=1675015>>, 10 September 2010.

4. Conclusions

Given a vast new array of regulation with the aim of addressing systemic risk regulation, one might properly ask why corporate governance matters all. Since the financial crisis, a variety of national reforms have already increased capital requirements for banks. The newly-adopted Basel III framework will increase regulatory capital requirements even dramatically. It will also mitigate liquidity risk by requiring a liquidity coverage ratio and a net stable funding ratio.¹⁷¹ On top of these requirements, (global) SIFIs may be, depending on the jurisdiction, subject to an additional capital surcharge. Even though prudential capital and liquidity rules can provide binding limitations on banks, it still can make sense to give firms the incentives to monitor their own capital structure. To the extent that corporate governance reforms are effective in this respect, they can be important elements of financial reform.

On the other hand, John Coffee, among others, argues that regulation designed to prevent systemic crises will likely fail because banks are necessarily deeply connected and they will always seek to improve profit margins by increasing leverage. Even the best designed regulation will largely concern itself with the last crisis and fail to predict new mechanisms for creating systemic risk.¹⁷² If prudential regulation in general and systemic risk regimes in particular will provide uncertain long-term oversight, corporate governance has a role in the policy mix as a backstop to government regulation. To the extent that corporate governance reforms are effective, they can help banks to take a harder look at their risk-taking and business strategies.

Further, the agency problems which justify the best corporate governance reforms are analytically much easier than systemic risk for policy to address. Although systemic risk is real, from a practical standpoint, the prevention of systemic crises is vexing because of the complexity of interconnections and the changing nature of the financial sector, especially as economically similar transactions can be achieved by increasing numbers of actors.¹⁷³ Even though corporate governance reforms usually will not directly address the sources of systemic risk, corporate governance is still relevant to the extent that it can reduce firm-level risk, thereby potentially ameliorating a systemic event. Since the legal task is clearer—correcting

¹⁷¹ See ‘Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems,’ <<http://www.bis.org/publ/bcbs189.htm>>, 16 December 2010.

¹⁷² Coffee, ‘Bail-Ins Versus Bail-Outs: Using Contingent Capital to Mitigate Systemic Risk,’ 7.

¹⁷³ See Whitehead, ‘Reframing Financial Regulation,’ 20.

incentives that are fundamental to stockholding companies and in particular banks—corporate governance has an important role to play in promoting financial stability.

Against this backdrop is it reassuring to note that the EU has already made substantial progress in improving the legal framework for banks' corporate governance. In particular, CRD III provides for a stringent comprehensive remuneration regime that, in part, has been anticipated by Member States by establishing compatible national regimes already in advance, even at the cost of putting EU banks at a disadvantage vis-à-vis their US competitors. In addition, CEBS has produced two comprehensive guidebooks on sound internal governance – Guidelines on Remuneration Policies and Practices and (draft) Guidebook on Internal Governance – the latter, inter alia, providing well-conceived detailed recommendations with respect to an appropriate risk governance framework for banks.

The Commission Green Paper “Corporate governance in financial institutions and remuneration policies” can be read as providing corroborative evidence. It lists six areas, in which the financial crisis has led to a significant loss of confidence in financial institutions: conflicts of interests, lack of effective implementation of corporate governance principles, board of directors, risk management, role of shareholders, role of supervisory authorities, and role of auditors. Some of these topics are either not corporate-governance specific (conflicts of interests) or are not financial-institution specific (board composition and evaluation issues, role of shareholders, or insufficient implementation of corporate governance principles). The very recent Commission Green Paper “The EU corporate governance framework” acknowledges that the earlier Green Paper already addressed mostly generic corporate governance issues by stating “financial institutions are a special case, because of the particular challenges faced in ensuring effective risk management and the systemic risks they may pose to the financial system”¹⁷⁴ and by dealing with these generic corporate governance issues in much more detail.

Seen from that perspective, the not-yet resolved bank-specific corporate governance issues identified in the earlier Green Paper, in essence, boil down to two possible reform areas: (i) strengthening the independence and authority of the risk management function, particularly by giving the chief risk officer (CRO) at least equal status to the chief financial officer, and (ii) creating a specific duty for the board to take account of the interests of depositors and other creditors. Regardless of whether one endorses any of these two ideas –

¹⁷⁴ European Commission. ‘Green Paper: The E.U. Corporate Governance Framework,’ COM 164 (2011), http://ec.europa.eu/internal_market/company/docs/modern/com2011-164_en.pdf, 3.

and we have already argued against such an expansion of the duty of care¹⁷⁵ – the major task ahead is not to tighten the EU corporate governance framework for banks even further. Instead, the key issue is how to ascertain the practical implementation of well-known best practices in the area of banks' corporate governance.

¹⁷⁵ See *supra* Section 3.2.1; see also Peter O. Mülbart, 'Corporate Governance in der Krise' *Zeitschrift für das gesamte Handelsrecht und Wirtschaftsrecht* 174 (2010), 375, 378 et seq. The German Parliament also opposes such a reform; see Deutscher Bundestag, 'Beschlussempfehlung, Bundestags-Drucksache 17/3112,' <dip.bundestag.de/btd/17/034/1703449.pdf>, 27 October 2010, 6 et seq.

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