

Columbia University

From the Selected Works of Jeffrey N Gordon

August 16, 2013

Systemic Harms and Shareholder Value

Jeffrey N Gordon



Available at: https://works.bepress.com/jeffrey_gordon/1/

Systemic Harms and Shareholder Value

*John Armour** and *Jeffrey N. Gordon***

This draft: August 15, 2013

Abstract

The financial crisis has demonstrated serious flaws in the corporate governance of systemically important financial firms. In particular, the Shareholder Value norm, which has guided corporate governance reform for a generation, proves to be a faulty guide for managerial action in systemically important firms. This is not only because the failure of such firms will have spillovers that defy the cost-internalization of the tort system but also because these spillovers will harm their own majoritarian shareholders. The interests of diversified shareholders fundamentally diverge from the interests of managers and other controllers because the failure of a systemically important financial firm will produce losses throughout a diversified portfolio, not just own-firm losses. Among the consequences: the business judgment rule protection that makes sense for officers and directors of a non-financial firm leads to excessive risk-taking in a systemically important financial firm. To encourage appropriate modification of the Shareholder Value norm, we propose officer and director liability rules as a complement (and substitute) to the prescriptive rules that have emerged from the financial crisis.

I. Introduction

The generally accepted framework for analyzing corporate law and governance implies that those running a corporation should seek to maximize the value of shareholders' claims, as measured by the stock price. This norm, which we refer to as 'shareholder value', is adopted as a way of rendering those controlling a public company accountable to shareholders. Where shareholders are numerous and widely dispersed, they have little incentive to engage actively in the firm's decision-making. The concern is therefore that the firm will be run in the interests of its managers, rather than

* Hogan Lovells Professor of Law and Finance, University of Oxford; Fellow, European Corporate Governance Institute.

** Richard Paul Richman Professor of Law, Columbia Law School; Fellow, European Corporate Governance Institute.

We thank Dan Awrey, Brian Cheffins, Tom Coleman, Bob Cooter, Frank Easterbrook, Victor Goldberg, Henry Hansmann, Bill Hubbard, Howell Jackson, Rob Jackson, Reinier Kraakman, Terry Lyons, Alan Morrison, Mariana Pargendler, Katharina Pistor, Eric Posner, Arad Reisberg, Roberta Romano, and Nicolas Serrano-Verlarde for helpful comments and discussions in relation to this material, and Alex Imas for excellent research assistance. We are grateful for comments received following presentations of earlier versions of this work at the American Law & Economics Association 2013 Annual Meeting, the ETH-NYU 2013 Law/Banking Conference; Columbia Law School, Univ. of Chicago Law School, Harvard Law School, FGV Rio, the Institute of Law & Finance, Frankfurt, the LSE, and Oxford. The usual disclaimers apply.

its owners. The shareholder value norm encourages managers instead to make decisions as diversified shareholders would, were these shareholders not beset by collective action problems.

The shareholder value norm thus responds to the ‘agency problem’ between managers and diversified shareholders. If the firm had only one shareholder, there would be no coordination costs and so that single owner could take an active role in corporate governance. The actions that a single owner would want therefore form a useful heuristic for the shareholder value norm. A sole owner would want the firm to maximize the value of their claims. The shareholder value norm encourages managers to act more like owners, by maximizing the value of shareholders’ claims. It has acquired an almost axiomatic status in discussions about corporate governance. For example, policy thinking about executive pay and the market for corporate control are largely premised on tying managerial welfare to the performance of the share price.¹

However, the shareholder value norm is not simply about encouraging managers to behave as if they were sole owners. Unlike a sole owner, the portfolios of diversified shareholders are insulated from the effects of idiosyncratic (firm-specific) risks.² Diversified shareholders will consequently want the firm to take more risks than would a sole owner. Managers, on the other hand, are undiversified, because they have human capital that is tied up with their firm. There is therefore an irony that as respects attitudes to risk, managers are more like sole owners than diversified shareholders. Hence the shareholder value norm encourages managers to take risks as if they were diversified.

Shares in widely-held firms are traded on capital markets, which—if they are informationally efficient—function to aggregate into the stock price all publicly available information relevant to the value of diversified shareholders’ claims.³ This provides a useful way to implement the shareholder value norm: that is, to encourage managers to maximize the share price. The share price increases in response to activities that increase the value of shareholders’ claims, as a sole owner would wish. But because participants in the market are typically diversified, prices will reflect their preferences as to risk—that is, they will not take into account idiosyncratic risk. In short, given efficient capital

¹ See, e.g., Michael C. Jensen & Kevin J. Murphy, Performance Pay and Top-Management Incentives, 98 J. Pol. Econ. 225 (1990); Kevin J. Murphy, *Executive Compensation*, in Orly C. Ashenfelter and David Card (eds), *Handbook of Labor Economics* 2485 (1999); Lucian Bebchuk and Jesse Fried, *PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION* (2004), 15-22.

² The fact that they can consequently bear risk more cheaply than undiversified investors is indeed an important explanation for the prevalence of dispersed ownership in very large firms.

³ To the extent that the stock market is not informationally efficient, it may be possible for managers to do a better job of maximizing the value of the shareholders’ residual claims by other means than maximizing the stock price. The debate about this issue, which has been widely canvassed elsewhere, does not form part of our critique. See, e.g., Ronald J. Gilson and Reinier Kraakman, *Delaware’s Intermediate Standard for Defensive Tactics: Is there Substance to Proportionality Review?*, 44 Bus. Law. 247 (1988); Lynn Stout, *Bad and Not-so-bad Arguments for Shareholder Primacy*, 75 S. Cal. L. Rev. 1189 (2001); Jill E. Fisch, *Measuring Efficiency in Corporate Law: The Role of Shareholder Primacy*, 31 *Journal of Corporation Law* 637 (2003); Lynn Stout, *THE SHAREHOLDER VALUE MYTH*, 63-73 (2012),

markets, focusing managers' efforts on share price maximization will reduce agency costs whilst at the same time ensuring the firm's decisions are made without regard to idiosyncratic risk.

By mitigating internal conflicts, the shareholder value norm also tends to enhance social welfare in a large range of circumstances.⁴ This is most obviously the case if the firm's activities have no adverse impact on third parties. However, where a firm's activities do have adverse impacts on third parties, a range of legal mechanisms—contracts, liability rules and regulation—act to ensure these costs are internalized into the firm's profit function.⁵ Where these internalization mechanisms function effectively, then shareholders ultimately bear the social costs of harmful activities, just as would a sole owner. Consequently the shareholder value norm, by aligning the interests of managers with shareholders, operates virtuously to encourage managers to take social costs into account.

This attractive result as regards social costs depends on the internalization mechanisms actually doing their job. If the firm's owners don't bear the full social costs of their activities, then the shareholder value norm will encourage managers to act in a way that increases social costs. Yet the accommodation at which those studying corporate governance generally arrive is to observe that any such failure implies a weakness of these internalization mechanisms, not of the shareholder value norm itself. That norm offers many benefits in terms of managerial accountability, and if problems of internalization can be solved by enhanced external measures, these are clearly preferable.⁶

In our view, the recent financial crisis calls this accommodation into question as regards financial firms whose activities are systemically important. We make three novel claims. First, the extent to which traditional private law mechanisms—in particular, the law of tort—fail to internalize systemic harms has been under-appreciated. The activities of certain sorts of firms—vividly exemplified by large financial institutions—can cause economic losses to large numbers of parties through indirect and diffuse causal channels. In contrast, tort law is primarily concerned with direct physical harms to individual plaintiffs. Purely financial or 'economic' losses are generally not recoverable. The rationale is that in most cases such harms do not result in net *social* losses. A financial harm (loss) to one party's business usually creates an equivalent opportunity (gain) for a competitor. This serendipitous result does not hold, however, for harms which are large and diffuse enough to have a negative impact on the entire economy—that is, economic harms which may be termed *systemic*. Nevertheless, tort liability is not available for negligent conduct causing such losses. Consequently private law does not do an 'imperfect job' of internalizing systemic harms. It does no meaningful job at all.

⁴ A point famously made by Milton Friedman. See Milton Friedman, *The Social Responsibility of Business is to Increase its Profits*, N.Y. TIMES MAG., Sept. 13, 1970.

⁵ See, e.g., Jonathan R. Macey, *Fiduciary Duties as Residual Claims: Obligations to Nonshareholder Constituencies from a Theory of the Firm Perspective*, 84 Cornell L. Rev. 1266, 1275-76 (1998).

⁶ See, e.g., Jonathan R. Macey, *An Economic Analysis of the Various Rationales for Making Shareholders the Exclusive Beneficiaries of Corporate Fiduciary Duties*, 21 Stetson L. Rev. 23 (1991).

The difficulties for tort law lie deeper than the distinction between physical and economic loss. To the extent that there is a causal relationship between financial firm bankruptcy and systemic losses, *ex post* liability for the firm is not an appropriate internalization tool. On the one hand, the fact that the firm will already be bankrupt in states of the world in which liability is imposed will undermine the deterrent effect of liability on shareholders. This in turn could be ameliorated by imposing unlimited shareholder liability for such harms.⁷ But even that would be undermined by the likelihood of government bailouts calculated to avoid the bankruptcy of financial firms and consequent realization of systemic harms. In the absence of liability, tort law would not internalize, regardless of limited liability.

Where private law is unable to do the work of internalization, it is generally thought that regulation is a desirable response.⁸ Our second claim is that the shareholder value norm creates incentives for firms systematically to undermine the efficacy of regulatory internalization. The easiest way to maximize shareholder returns may be not to innovate processes so as to reduce the social costs of one's activities in accordance with regulatory strictures, but to exercise political influence to achieve a lower rate of regulatory 'tax'. The upshot is that whatever the extent of the work that may be done by regulation, the shareholder value norm will tend systematically to undermine it.

As we have noted, the shareholder value norm encourages managers to behave more like sole owners, so as to mitigate agency costs. A sole owner, faced with incomplete tort liability, will engage in more hazardous activity than is socially desirable. And she will seek to exploit (and enlarge) gaps in the regulatory system to the extent that her marginal costs of doing so are less than her marginal benefits. But the shareholder value norm actually gives managers of widely-held firms *worse* incentives than those of sole owners under equivalent circumstances. This is because the shareholder value norm is implemented in a way that seeks to encourage managerial risk-taking. Pushing against regulatory boundaries is risky. A sole owner, whose investment in the firm was not diversified, would be less willing to take such risks than are diversified shareholders. Moreover, as widely-held firms tend to be larger than closely-held firms, the resources available to those running the firm to try to influence regulators are in any event likely to be greater.

The case of banks illustrates dramatically the problems of shareholder value in relation to systemic harms. The failure of a bank can trigger harms both to other banks and to other firms who might have used it as a source of credit. Thus bank risk-taking has a systematic, as opposed to idiosyncratic (firm-specific), character. Yet bank executives who had the strongest incentives to maximize the value of bank shares—as reflected in stock-based compensation, oversight by independent directors, and shareholder power—worked at the firms that took the greatest risks and

⁷ Henry Hansmann and Reinier Kraakman, *Towards Unlimited Shareholder Liability for Corporate Torts*, 100 YALE L.J. 1879 (1991).

⁸ See e.g., STEVEN SHAVELL, *FOUNDATIONS OF THE ECONOMIC ANALYSIS OF LAW* (2004), 92-101.

suffered the greatest losses.⁹ And regulators' ability to control such activity was undermined by sophisticated exploitation of regulatory gaps and well-organized lobbying from the banking sector.

The foregoing discussion generates the question how the problem we have identified—that is, the pernicious negative synergies between shareholder value and systemic harms—may be ameliorated. Financial regulation is being strengthened, and regulators better resourced, around the world. We do not doubt that this will improve matters to some extent. However, the structural problem we have identified remains: the shareholder value norm pushes managers hard to undermine regulation, and tort law contributes nothing to control this tendency. Hence in our view it is unsafe to rely on regulation alone.

To augment regulatory changes, we propose a modification to the corporate governance of systemic firms. Because the shareholder value norm generates particularly pernicious incentives as regards systemic harms, we argue its application should be relaxed for such firms.¹⁰ Relaxing the shareholder value norm would reduce the strength of managers' incentives to maximize profits, and as a result, impose less social costs. According to the standard accommodation, this would come at the expense of increased agency costs between managers and shareholders. Our third claim is that, where the harms are *systemic*, relaxing the shareholder value norm does not increase agency costs. This is because even the firm's diversified shareholders would rather that the managers did not impose externalities. The shareholder value norm presupposes that investors can diversify away risks associated with the project choices of individual firms and consequently that the share price is the sole benchmark of shareholder utility. The undiversifiable component of an investors' portfolio risk—that is, 'market risk'—is taken to be exogenous to individual firms' activities. Under these conditions, diversified shareholders always want managers to pursue projects that have a positive net present value for their firm, regardless of their riskiness. However, if the failure of an individual firm's projects may impose costs on other firms generally then this increases the correlation of investors'

⁹ See Shams Pathan, *Strong Boards, CEO Power and Bank Risk-Taking*, 33 J. Bank. & Fin. 1340 (2009); Rich Fortin, Gerson M. Goldberg & Greg Roth, *Bank Risk Taking at the Onset of the Current Banking Crisis* 45 Fin. Rev. 891 (2010); Andrea Beltratti & René Stulz, *The Credit Crisis Around the Globe: Why Did Some Banks Perform Better?*, 105 J. Fin. Econ. 1 (2012); David H. Erkens, Mingyi Hing & Pedro Matos, *Corporate Governance in the 2007-2008 Financial Crisis: Evidence from Financial Institutions Worldwide*, 18 J. Corp. Fin. 389 (2012); Renee B. Adams, *Governance and the Financial Crisis*, 12 Int'l. Rev. Fin. 7 (2012).

¹⁰ In so doing, we consider that early policy responses to the financial crisis, which assumed that problems arose because managers of financial firms were not sufficiently focused on shareholder value, were mistaken. The Dodd-Frank Act, for example, contains various corporate governance provisions, including authorization for SEC adoption of rules expanding shareholder access to the management proxy and provision for a shareholder advisory vote on executive compensation, so-called 'say on pay', Secs. 971, 951, Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1375, 1915, 1899 (2010). Similarly, the UK government-commissioned review by Sir Derek Walker of the corporate governance of banks concluded that greater engagement by shareholders was desirable. Sir Derek Walker, *A Review of Corporate Governance in UK Banks and other Financial Industry Entities*, 82-87 (2009), available at http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/d/walker_review_261109.pdf.

returns, and consequently the undiversifiable portion of their risk. For this to be the case, the externalities associated with the firm's projects must have a sufficiently general character as to affect the economy at large, rather than a few specific firms, and so not be amenable to diversification. Costs to *other* firms will not be fully reflected in the share price of the individual firm selecting the project. Consequently share price maximization can in the presence of systemic externalities lead to reduced portfolio returns to investors. In relation to projects with such potential consequences, diversified investors should not want managers to single-mindedly maximize share prices. As a result, a system in which 'shareholder value' is interpreted as share price maximization is paradoxically *not* aligning managers' interests with those of dispersed shareholders, at least as regards systemic risks.

The relaxation of the shareholder value norm we envisage has two components. First, and in line with a growing literature and regulatory developments, we urge that firms capable of causing systemic harms eschew the use of high-powered equity-based compensation for their managers. Second, we also make the case for the imposition of liability rules for directors and officers of banks. Such liability, appropriately structured, makes agents behave in a more risk-averse fashion, which the conventional wisdom underpinning the business judgment rule suggests is contrary to the interests of diversified shareholders. Our analysis reveals that when a firm's actions affect *systemic* risk, the conventional wisdom is reversed: diversified shareholders want managers to take *less* risk. This undercuts the case for business judgment protection. We argue that director and officer liability has a potentially useful role to play in circumscribing the limits of shareholder value. Such liability would be owed to the firm, and could be triggered by a derivative action following the occurrence of significant losses.

A particular merit of this proposal is that the imposition of liability does not presuppose, or itself trigger, the bankruptcy of the firm. The bankruptcy of a systemically important firm may be an event that causes systemic losses. Consequently politicians are willing to spend large amounts of public funds in order to avoid the bankruptcy of such firms. A liability regime that could only be triggered by, or which itself caused,¹¹ such a bankruptcy would have its deterrent effect undermined by the probability that a bailout of some sort would be engineered. Our proposal is for liability that is triggered by significant losses *to the firm*—and thereby to its shareholders—to which directors' and/or officers' negligence contributed. Diversified shareholders thus act as a proxy for society in enforcing claims against those making the firm's decisions. The liability regime would deter risk-taking that might endanger the firm's financial health.

The rest of this paper is structured as follows. In Section II, we consider limitations in the ordinary mechanisms for control of externalities. Section III then shows how the pursuit of

¹¹ An alternative to relaxing the shareholder value norm for systemic firms would be to remove tort law's restrictions on recovery for economic losses, in the case of systemic harms. Even assuming non-trivial difficulties regarding causation, quantification of losses, and aggregation of plaintiffs could be overcome; the size of the losses would likely bankrupt any firm that was made liable.

shareholder value, in the presence of externalities, may diverge from the interests of diversified shareholders. In Section IV, we turn to solutions, making the case for a duty of care in relation to the directors and officers of banks. In Section V, we consider extensions and responses to significant objections. Section VI concludes. At the outset, we should emphasize that we are far surer of the significance of the problem we document than we are of the efficacy of our proposed solutions, which we present primarily as a heuristic framework for debate.

II. Controlling Systemic Externalities

The consensus view is that the appropriate techniques for controlling externalities are themselves *external* to the firm: that is, they do not involve any interference with internal corporate governance arrangements. Provided such mechanisms cause the true social costs of the firm's activities to be impounded into the firm's cashflows, then the shareholder value norm will instrumentally result in socially optimal outcomes. Given the desirable governance properties of the shareholder value norm in ameliorating agency costs, this seems a powerful argument against interference with corporate governance arrangements. It is, provided that these other mechanisms of control actually do their jobs. Unfortunately, their ability to do so is rather less adequate than we might at first imagine. More troublingly still, the shareholder value norm might in some cases actually tend to *undermine* their efficacy. Before discussing these limitations, we first motivate the discussion by reference to the banking sector.

A. Financial Firms and Systemic Harms

Our motivation for writing this paper lies in the recent financial crisis. Banks (and other similar financial institutions) carry on activities that have the potential to impose losses on other actors. These losses are characteristically widely diffused, indirect and in aggregate very large. They are 'systemic' in the sense that they adversely impact a wide cross-section of actors in the economic system.

The most obvious occasion for triggering such losses is bank failure. In the first instance, this is because of the possibility of contagion to other financial firms—that is, the failure of one triggers the failure of others. Many financial institutions are structurally vulnerable, even fragile. This is because of the particular business model of banks (and bank-like institutions), which engage in a three-way transformation: transforming short-term liabilities of low expected risk and high expected liquidity (e.g., deposits) into long-term risky assets (e.g., term loans) with low expected liquidity (meaning: a sale or realization is likely to require a discount to par). That is, banks engage in risk transformation (safe to risky), maturity transformation (short-term to long-term), and liquidity transformation (liquid to illiquid). For example, the basic business model of a commercial bank involves raising money from depositors (paradigmatically, households) and then lending it to

businesses at a higher interest rate.¹² This model means that there is a liquidity mismatch: depositors require liquidity, but the money is invested in illiquid loans.¹³ If too much liquidity is demanded by depositors, long-term assets must be liquidated in a way that is destructive of value.¹⁴ Of course institutions actively manage this mismatch, but they remain vulnerable to events that trigger a sudden decline in the value of their liquid assets or a sudden increase in demand for liquidity.¹⁵

Financial institutions are also typically highly interconnected, meaning that problems at one can easily be transmitted to others. In the most literal sense, this occurs through direct connections between balance sheets, with the liabilities of one institution being assets of others that become devalued on its financial distress.¹⁶ Contagion can also be driven by correlation in investment strategies. Fire-sale liquidation of assets by a distressed institution depresses the market value of similar assets and consequently affects other institutions' balance sheets.¹⁷ Contagion can also occur across the liabilities side of firms' balance sheets, where short-term funders (such as depositors or money market mutual funds) infer from the failure of financial institution A that financial institution B is also likely to face difficulties, consequently provoking a run on B.¹⁸ Such an inference could be drawn if either of the previous two mechanisms of contagion are present—that is, if B holds A's debt, or if B holds assets that A is liquidating. This means that the various mechanisms of contagion can compound each others' effects. Intuitively, contagion within the financial system appears to be greatest for those other financial firms that are most closely connected with the failed institution,¹⁹ and/or are themselves most fragile.²⁰

¹² See generally, FREDERICK S. MISHKIN, *THE ECONOMICS OF MONEY, BANKING, AND FINANCIAL MARKETS*, 9th ed., Ch 10 (2010);); Jeffrey N. Gordon & Christopher Muller, *Confronting Financial Crisis*, 28 *YALE J. REG.* 151, 158-166 (2011).

¹³ See FSA, *The Turner Review: A Regulatory Response to the Global Banking Crisis*, 11-22 (2009)

¹⁴ This because prospective purchasers will assume that banks will exploit their informational advantages to sell relatively weak assets, "adverse selection," and therefore will insist on a discount to par; or, in a financial crisis, will withhold purchasing on the prospect that better bargains can be had through delay, which leads to "fire sale" valuations.

¹⁵ See XAVIER FREIXAS AND JEAN-CLAUDE ROCHET, *MICROECONOMICS OF BANKING*, 2nd ed, Ch 7 (2008).

¹⁶ See eg, Steven L. Schwarcz, *Systemic Risk*, 97 *GEO. L. J.* 193, 247 (2008).

¹⁷ Viral Acharya, *A Theory of Systemic Risk and Design of Prudential Banking Regulation*, 5 *J. FIN. STAB.* 224 (2009).

¹⁸ V.V. Chari and Ravi Jagannathan, *Banking Panics, Information, and Rational Expectations Equilibrium*, 43 *J. FIN.* 749 (1988); Gary Gorton, *Banking Panics and Business Cycles*, 40 *OX. ECON. PAP.* 751 (1988); Andrew Haldane & Robert May, *Systemic Risk in Banking Ecosystems*, 469 *Nature* 351 (Jan 2011).

¹⁹ See George Kaufman, *Bank Contagion: A review of the Theory and Evidence*, *J. Fin. Serv. Res.* 123, 129 (1994) (reviewing evidence); Nicolas Dumontaux and Adrian Pop, *Contagion Effects in the Aftermath of Lehman's collapse: evidence from the US financial services industry*, March 2013 working paper, no. 427, Banque de France, forthcoming in *J. Financial Stability*, available at http://www.banque-france.fr/uploads/tx_bdfdocumentstravail/DT-427_03.pdf (contagion experienced by other large financial firms, most intensely by those most connected to Lehman).

²⁰ See Itzhak Swary, *Stock Market Reaction to Regulatory Action in the Continental Illinois Crisis*, 59 *J. Bus.* 451 (1986) (failure of Continental Illinois bank holding company in 1984 associated with adverse stock price

Contagion to other financial institutions would not in itself be so problematic were it not the case that such institutions collectively perform functions that are of pivotal importance to the functioning of the real economy. Commercial (or ‘traditional’) banks act as repositories of human capital for making effective lending decisions and monitoring the performance of debtors. If banks suffer a shock that causes them to fail or simply reduces their liquidity, then would-be borrowers’ access to credit will be impeded.²¹ Good business projects will go unfunded, or face premature liquidation before they have had the opportunity to generate worthwhile returns.²² The identification of this ‘credit channel’ through which banks add value was one of the contributions upon which Ben Bernanke, now Chairman of the Federal Reserve, made his name as an academic economist.²³ Commercial banks also contribute to the payments system, the smooth operation of which is a public

impact for other banks of doubtful solvency); Elijah Brewer III, Hesna Genay, William Curt Hunter and George G. Kaufman, *Does the Japanese Stock Market Price Bank Risk? Evidence from Financial Firm Failures*, 35 *J. Money, Credit & Bank.* 507 (2003) (failure of Japanese financial institutions during 1995-98 had negative stock price impact on other banks, most pronounced for financially weaker institutions); cf Larry D. Wall and David R. Petersen, *The Effect of Continental Illinois’ Failure on the Financial Performance of Other Banks*, 26 *J. Mon. Econ.* 77 (1990) (results of Swamy study confounded by other events during event window).

²¹ See Victoria Ivashina and David Scharfstein, *Bank Lending During the Financial Crisis of 2008*, 97 *J. Fin. Econ.* 319 (2010) (new bank loans lending contracted during the financial crisis, most pronounced for banks with lower deposit bases). Similarly, a number of studies report that bank failures have adverse impacts on their clients, with whom lending relationships have been established: Myron B. Slovin, Marie E. Sushka, and John A. Polonchek, *The Value of Bank Durability: Borrowers as Bank Stakeholders*, 48 *J. Fin.* 247 (1993) (borrowers from Continental Illinois suffered negative stock price impacts following its failure in 1984); Michael S. Gibson, *Can Bank Health Affect Investment? Evidence from Japan*, 68 *J. Bus.* 281 (1995) (borrowers relying on troubled Japanese banks during 1991-92 made 30% less investment than the mean); Nobuyoshi Yamori and Akinobu Murakami, *Does Bank Relationship have an Economic Value? The Effect of Main Bank Failure on Client Firms*, 65 *Econ. Lett.* 115 (1999) (failure of Hokkaido Takusyoku Bank, the 17th largest bank in Japan, in 1997 triggered abnormal returns for client firms, most pronounced for those most reliant on it); Jun-Koo Kang and Rene M. Stulz, *Do Banking Shocks Affect Borrowing Firm Performance? An Analysis of the Japanese Experience*, 73 *J. Bus.* 1 (2000) (firms more reliant on bank borrowing performed worse during Japanese financial crisis 1990-93 and made less investment); Kee-Hong Bae, Jun-Koo Kang and Chan-Woo Lim, *The Value of Durable Bank Relationships: Evidence from Korean Banking Shocks*, 64 *J. Fin. Econ.* 181 (2002) (Shocks to Korean banks during 1997-98 Asian financial crisis associated with negative stock price impact for client firms, most pronounced for weaker banks and weaker clients); Simeon Djankov, Jan Jindra and Leora F. Klapper, *Corporate Valuation and the Resolution of Bank Insolvency in East Asia*, 29 *J. Bank. & Fin.* 2095 (2005) (failure of banks in Indonesia, Korea and Thailand during Asian financial crisis 1997-98 had adverse impact on their borrowers). However, cf Steven Ongena, David C. Smith and Dag Michalsen, *Firms and their Distressed Banks: Lessons from the Norwegian Banking Crisis*, 67 *J. Fin. Econ.* 81 (2003) (near-collapse of Norwegian financial system during 1988-91 was associated with only very small and temporary stock price effects for borrowing firms).

²² Of course, the state might step in to lend directly to firms. But simply providing easy access to government-sponsored credit will not replicate the effective channeling of funds to *good* projects and the monitoring of debtors. In other words, the damage done to the real economy by the loss of the banking sector is not simply the withdrawal of the funds provided by that sector, but the loss of the ability to *allocate* funds to good projects.

²³ Ben S. Bernanke, *Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression*, 73 *AM. ECON. REV.* 257 (1983).

good for the economy at large.²⁴ Investment banks similarly perform a screening function in relation to their underwriting clients, who suffer losses as a consequence of their failure.²⁵

The losses imposed by bank failure on the real economy can therefore be far larger than those suffered by bank shareholders. For example, the market capitalization of Lehman Bros, Inc. peaked in on January 29, 2007 at approximately \$60 billion,²⁶ and the high-water market capitalization of the “crisis banks,” those who either failed or required special assistance in order to survive,²⁷ was approximately \$1.2 trillion.²⁸ These numbers put an upper bound on the value of these firms’ business activities from the perspective of their shareholders. They are large sums by any measure, yet the fallout from the crisis was much larger. One measure is the size of the subsequent financial sector rescue efforts. A partial list of US-based responses in 2008-09 would include: seven different Federal Reserve emergency facilities entailing lending and guarantee commitments of up to \$7.7 trillion to various credit market participants²⁹; FDIC deposit and loan guarantee commitments of \$1.7 trillion to banks and bank holding companies; Treasury guarantees of more than \$1.6 trillion to money market fund shareholders;³⁰ and Congressional appropriations of \$700 billion for the Troubled Asset Relief Program. To be sure, many of these commitments were never called upon in full. Yet including the various stimulus programs, the US suffered *net* fiscal outlays of 3.6 percent of GDP, or

²⁴ Independent Commission on Banking (UK), *Final Report*, Chs. 1; 3.20-21; 5.7 (“Vickers Report”).

²⁵ Chitru S. Fernando, Anthony D. May and William M. Megginson, *The Value of Investment Banking Relationships: Evidence from the Collapse of Lehman Brothers*, 67 *J. Fin.* 235 (2012) (Lehman failure had adverse effect on its investment banking clients).

²⁶ Stock price data from www.finance.yahoo.com: LEH.

²⁷ The “crisis banks” failed, merged to avoid failure, or received special emergency assistance, and consisted of Citigroup, AIG, Bank of America, Lehman Brothers, Bear Stearns, Merrill Lynch, Goldman Sachs, Morgan Stanley, Wachovia, and Washington Mutual. See Charles W. Calomiris & Richard J. Herring, *How to Design a Contingent Convertible Debt Requirement* (April 2011), available at <http://ssrn.com/abstract=1815406>. Throughout this paper we will use “banks” and “financial institutions” somewhat interchangeably, unless the context requires precision. The financial crisis eliminated three major investment banks (Bear Stearns, Merrill Lynch, and Lehman Brothers) and forced the conversion of the two large remaining investment banks (Goldman Sachs and Morgan Stanley) into bank holding companies. Gordon & Muller, *supra* note 12, at --, explains how credit default swaps have made the investment bank model obsolete, because public revelation of changes in default risk heightens the fragility of such banks’ short term funding model.

²⁸ Stock market capitalization is derived from Wolfram Alpha, Yahoo! Finance, and author computations from 10-Ks. This “high water” mark sums the highest market capitalization reached by each of the crisis banks during the 2006-08 period, not the highest market capitalization of the group, collectively, during that period. This measure overstates the collective shareholder stake and thus understates the private benefit/social cost mismatch.

²⁹ See Phil Kuntz & Bob Ivry, *Fed Once Secret Price Data Compiled by Bloomberg Released to Public*, Bloomberg, Dec. 23, 2011 (tallying various Fed programs).

³⁰ Authors’ calculation based on *Inv. Com. Instit. 2007 Factbook* (Table 38). See also CONGRESSIONAL OVERSIGHT PANEL MARCH OVERSIGHT REPORT 25-37 (2011) (summarizing extent of government support).

\$5 trillion.³¹ Moreover, despite these efforts, the US economy contracted by 3.5 percent in the immediately following year 2009, down from a positive growth rate of 2.8% in 2007—a fall equivalent to approximately \$9 trillion.³² These US measures of course do not count the costs incurred elsewhere around the world.³³

It is tolerably clear that the difficulties banks found themselves in by the fall of 2008 were the consequence of the pursuit of high-risk, high-return strategies by bank executives. Such strategies earn good returns for shareholders, but by raising the volatility of the firm’s cashflows, also increase the risk of its failure, which triggers the externalities we have described. Why did the mechanisms ordinarily deployed to control externalities not restrict the pursuit of such strategies? We now consider each in turn.

B. Contractual Internalization

Ronald Coase famously pointed out that in many cases, supposed ‘externalities’ can in fact be impounded into a firm’s cashflows by contract.³⁴ If the firm’s activities impose costs on others, then those others have reason to seek to contract with the firm so as to give it an incentive to reduce those costs to the socially optimal level.

In the context of banks, bondholders and other creditors adjust the pricing of their loans according to the expected risk of the bank’s default. This forces the bank to take into account the expected costs to creditors *ex ante*. For one class of creditor, namely depositors, this internalization process does not operate smoothly. It is widely believed that retail depositors make systematic errors in the pricing of risk *ex ante*, leading them to underprice the level of risk undertaken by a bank.³⁵ As a consequence, the US like many other countries operates a system of deposit insurance, whereby individual depositors have their claims against banks insured by a regulatory agency—in the US, the Federal Deposit Insurance Corporation (‘FDIC’). In the event of bank failure, the agency pays out to the depositors and is subrogated to the latter’s claims against the bank. However, the “premium” paid to the agency for insuring deposits often does not reflect the risk of a particular bank’s default, likely a result of the sort of limitations of regulatory intervention described previously. Thus neither retail depositors, nor the deposit insurers who fill their shoes, seem able effectively to contract with banks so that the latter internalize even the immediate costs their default would impose.

³¹ Jan Schildbach, *Direct Cost of the Financial Crisis*, Deutsche Bank Research, May 14, 2010, 3-4. GDP in the relevant period was approximately \$14 trillion.

³² IMF, *World Economic Outlook 2011*, 2.

³³ For a broader assessment, see Basel Committee on Banking Supervision, *An Assessment of the Long-term Economic Impact of Stronger Capital and Liquidity Requirements*, 2010, available at <http://www.bis.org/publ/bcbs173.pdf>.

³⁴ Ronald H. Coase, *The Problem of Social Cost*, 3 J. LAW & ECON. 1 (1960).

³⁵ Indeed, the nature of the credit transformation process makes it very difficult for depositors to evaluate and price the bank’s risk *ex ante*. Part of the bank’s added value to the credit transformation process is its expert assessment of projects in circumstances in which market-based pricing would lead to substantial discounts.

Incomplete pricing of risk by depositors or their insurers is a well-known problem. Clearly, it can give banks incentives to take on excessive levels of risk. However, it is only one part of the larger picture. The costs of bank failure can fall heavily on parties who do not—and cannot—contract with the bank. Anyone who directly or indirectly relies on the payments system, or who might like in the future to obtain credit to fund investment or current consumption, will suffer a loss if the bank ceases to operate.³⁶ Banks provide specialized services in assessing credit-worthiness *ex ante*, in monitoring performance under the loan *ex post*, and in creating portfolios of such loans. Failure of a large bank will disrupt these activities and may leave would-be borrowers without substitutes.³⁷ The parties who depend on credit in their on-going business operations are immediately affected. Even parties who do not ordinarily use bank credit will change their business and liquidity practices to minimize the chance that they would need bank credit.³⁸ The follow-on effect from credit contraction can have systemic consequences.

We might be tempted to dismiss this problem as a mere ‘pecuniary’ externality; that is, a consequence of one firm’s actions that impacts solely on the prices of factors of production (*viz*, capital) for other firms.³⁹ Ordinarily, pecuniary externalities are left out of account in assessing social welfare, because the impact on returns for the consumer is exactly equivalent and opposite to the impact on returns for the producer: that is, they cancel out in aggregate.⁴⁰ However, the effect we are emphasizing is not *simply* a change in the cost of capital; rather it is an adverse impact on the financial system’s ability to overcome information asymmetries in the allocation of capital; that is, it not only increases prices but induces greater *volatility* (*viz*, inaccuracy) in the rationing of credit. This has the propensity to make both lenders and (would-be) borrowers worse off.⁴¹ The implication of this

³⁶ See Ivashina and Scharfstein, *supra* note 21 (during financial crisis, banks originated less new loans and borrowers drew down more existing lines of credit). See also GARY B. GORTON, SLAPPED IN THE FACE BY THE INVISIBLE HAND, 33 (2010).

³⁷ See Victoria Ivashina and David Scharfstein, Liquidity Management in the Financial Crisis, working paper (2009) (firms whose credit lines were not renewed during the financial crisis subsequently cut their investments); Ran Duchin, Oguzhan Ozbas and Berk A. Sensoy, *Costly External Finance, Corporate Investment, and the Subprime Mortgage Credit Crisis*, 87 J. Fin. Econ. 418 (2010) (corporate investment declined during 2008, most pronounced for firms with low cash reserves of high short term net debt); cf Kathleen M. Kahle and René M. Stulz, *Access to Capital, Investment, and the Financial Crisis*, J. Fin. Econ. Accepted Paper (2012), doi <http://dx.doi.org/10.1016/j.jfineco.2013.02.014> (contraction in investment is equally pronounced for firms which are and are not reliant on credit prior to crisis).

³⁸ Bo Becker and Victoria Ivashina, *Cyclicality of Credit Supply: Firm Level Evidence*, NBER Working Paper 17392 (2011), available at <http://ssrn.com/abstract=1572699> (during financial crisis, firms which had access to bond markets increased their borrowing by this channel, implying that firms which did not have access were constrained).

³⁹ Tibor Scitovsky, *Two Concepts of External Economies*, 62 J. POL. ECON. 143 (1954).

⁴⁰ *Ibid.*

⁴¹ In markets in which information asymmetry is present, not all pecuniary externalities ‘net out’: Bruce C. Greenwald and Joseph E. Stiglitz, *Externalities in Economies with Imperfect Information and Incomplete Markets*, 101 Q. J. ECON. 229 (1986).

discussion is that even if deposit insurers did price the risk of failure accurately, there would still be significant externalities associated with bank risk-taking.

It was the desire to avoid such costs that motivated the government bailouts of banks in the US and Europe. In the winter of 2008-9, developed world governments made commitments to support the financial sector that peaked at 50 per cent of GDP in the US,⁴² 70 per cent in the UK,⁴³ and averaged 40 per cent across the EU.⁴⁴ Although these commitments were not drawn down anything like fully, the extent of the direct costs to taxpayers is staggering.⁴⁵ To take another important case, in providing deposit guarantees and loan guarantees to banks, bank holding companies, and even a non-bank bank, the FDIC employed an exceptionally broad interpretation of its authority to provide open bank assistance under the “systemic risk” exception to its “least cost” resolution mandate.⁴⁶ In effect, the US financial regulators declared in fall 2008 that no large financial institutions would be permitted to fail, and made good on that determination, even to the extent of extraordinary aid to Citigroup⁴⁷ and support to AIG that amounted to solvency protection for several European banks.⁴⁸ More generally, more than 40 countries increased deposit insurance limits.⁴⁹ In some countries, including the United States, the cap was explicitly removed, if temporarily;⁵⁰ in many other countries, the cap has been implicitly removed.

⁴² Bank of England, 26 FIN. STAB. REP. 6 (2009).

⁴³ *Ibid.*

⁴⁴ European Commission, Executive Summary of the Impact Assessment Accompanying Proposal for a Council Directive on a common system of financial transaction tax and amending Directive 2008/7/EC, SEC(2011) 1103 final, Brussels 28.9.2011, 2.

⁴⁵ To be sure, sovereigns do not have unlimited capacity to bail out their financial institutions (see Viral V. Acharya, Itamar Dreschler & Philipp Schnabl, A Pyrrhic Victory? Bank Bailouts and Sovereign Credit Risk, NBER Working Paper 17136, June 2011), available at <http://www.nber.org/papers/w17136.pdf>. For such states, however, the moral hazard problem may be pushed back one step further, as other states may be forced to step in to bail the *state* out.

⁴⁶ See Gordon & Muller, *supra* note 12, at 197-198; Henry M. Paulson, ON THE BRINK: INSIDE THE RACE TO STOP THE COLLAPSE OF THE GLOBAL FINANCIAL SYSTEM (2010) (FDIC guarantee authority stretched to cover GE Capital). The GAO raised questions about broad use of FDIC guarantee authority under the “systemic risk” exception, See GAO, FEDERAL DEPOSIT INSURANCE ACT, REGULATOR’S USE OF SYSTEMIC RISK EXCEPTION RAISES MORAL HAZARD CONCERNS AND OPPORTUNITIES EXIST TO CLARIFY THE PROVISION (April 2010), available at <http://www.gao.gov/new.items/d10100.pdf>. The FDIC’s authority was substantially cut back in the Dodd-Frank Act. See Gordon & Muller, *supra* note 12, at 198-199.

⁴⁷ CONGRESSIONAL OVERSIGHT PANEL, NOVEMBER OVERSIGHT REPORT, GUARANTEES AND CONTINGENT PAYMENTS IN TARP AND RELATED PROGRAMS (2009) (text at nn. 42-66).

⁴⁸ CONGRESSIONAL OVERSIGHT PANEL, JUNE OVERSIGHT REPORT: THE AIG RESCUE, ITS IMPACT ON MARKETS, AND THE GOVERNMENT’S EXIT STRATEGY 7-10, 101-28 (2010); office of the special inspector gen. for the troubled asset relief program, factors affecting efforts to limit payments to aig counterparties, 15-20, 28-30 (2009).

⁴⁹ Andrew Haldane, On Being the Right Size 10 (2012), available at <http://www.bankofengland.co.uk/publications/Documents/speeches/2012/speech616.pdf>.

⁵⁰ Sec. 343 of Dodd-Frank continued the FDIC’s crisis-era unlimited deposit insurance guarantee for non-interest bearing transaction accounts until Dec. 31, 2012.

While the bailouts likely reduced the impact of bank distress on the world economy, they themselves create another well-known problem: creditor moral hazard. We have suggested that non-depositor creditors of banks are able to price in the expected costs to them of bank failure. However, the effect of bailouts is to provide *ex post* insurance to such creditors. Moreover, although creditors of large banks may be unable to foresee the particular forms of government support, they can safely predict its arrival. This reduces the borrowing costs that such banks would otherwise have to pay to engage in increased risk-taking. It's now a familiar argument that bank mergers were strongly motivated by the desire to attain "Too Big to Fail Status" to get the advantage of this funding discount.⁵¹ Consequently, even those creditors who are in a position to cause banks to internalize part of the social costs of their risk-taking will fail to do so.

To summarize the discussion of internalization by contract: most bank creditors are able to price into their loans their expected losses given default by the bank. Depositors are a probable exception; a well-functioning deposit insurer should substitute for this function but in practice does not seem to do so. However, the social costs of bank failure extend far beyond losses to creditors: even if deposit insurance were correctly priced, the contractual internalization of social costs would only be partial. Consequently governments feel strong pressure to step in *ex post* to bail banks out. Unfortunately the expectation of such bailouts has the *ex ante* effect of weakening the extent to which contractual creditors are motivated to price into their loans even the creditors' expected losses given default. The provision of complete insurance, in other words, undermines even the partial internalization that would otherwise occur via contract.

C. Tort Law

Tort law functions in a complementary way to contractual allocation of costs. In contrast to Coasean bargaining, tort law does not require parties to be able to contract over the matter in question *ex ante*. Indeed, the dominant analytic move in private law is to view tort as filling gaps where contractual resolution is not feasible *ex ante*.⁵² The greater the number of persons affected by the

⁵¹ The size and even existence of a post-Dodd-Frank "Too Big To Fail" subsidy is in dispute. Compare "A Fair and Substantial Contribution by the Financial Sector: Final Report for the G-20," Staff of the IMF, June 2010, p. 56 with "Quantifying Structural Subsidy Values for Systemically Important Financial institutions," Kenichi Ueda and Beatrice Weder di Mauro, IMF Working Paper, May 2012. See generally Joseph Noss & Rhiannonn Sowebutts, The Implicit Subsidy of Banks, Bank of England, Fin Stab. P. 15 (May 2012), available at http://www.bankofengland.co.uk/publications/Documents/fsr/fs_paper15.pdf.

⁵² GUIDO CALABRESI, THE COSTS OF ACCIDENTS (1971). Tort, as a species of private law, also offers significant comparative advantages to regulatory measures. As regards 'slack', the incentives for private parties—who keep the relevant damages—to enforce liability rules are much more pronounced than are those for public officials—who do not keep levied penalties—to enforce regulatory measures. And perhaps even more compellingly, the judge-made common law rules which characterize much of tort law are derived from precedents established in individual cases. The rules of standing in private law mean that generally only parties with an interest in the actual case are permitted to participate in the litigation, greatly reducing opportunities for firms to influence the production of rules in their favor.

harmful activity in question, the more difficult it becomes for contracts to internalize the costs of bad outcomes. We might consequently imagine a role for tort law in internalizing losses associated with bank failure instead.

Tort law turns out to do very little work in internalizing systemic harms. To appreciate this, it is necessary to focus on two aspects of the way tort law operate. First, tort law generally does not impose liability for probabilistic harms. That is, negligent (in)actions which increase the risk of harm to other parties do not attract liability unless and until harm is actually suffered.⁵³ Liability is imposed *ex post*. In order to encourage the internalization of probabilistic harms *ex ante*, the expected quantum of liability should not be less than the expected (net) social cost of the course of action pursued.⁵⁴

Second, there is a general restriction on awarding damages for ‘pure economic losses’.⁵⁵ This rule, which might be more intuitively described as a restriction on liability for ‘indirect’ losses, imposes a bar on recovery for losses caused otherwise than as a direct result of physical damage caused to one’s person or property.⁵⁶ To take the case of an oil spill: Businesses whose property is physically contaminated are able to recover for business profits that are lost in direct consequence. For example, a beachfront hotel might find ingress of oil into its swimming pool, necessitating a period of closure to permit cleanup. The lost profits for this period of closure might be recoverable (to the extent they are foreseeable) as well as the direct costs of the cleanup. However, those whose property is not physically harmed are ordinarily unable to recover for lost profits. For example, a hotel operating several streets back from the beachfront, which experiences no direct contamination, nevertheless suffers a sharp fall in profits because holidaymakers avoid the area en masse having seen the oil spill on television. Applied to the financial sector, the bar on recovery of economic loss rules out any possibility of tortious liability grounded on negligent risk management at financial firms leading to lost credit contracting opportunities (or other losses associated with financial firm failure). There is no physical harm, only economic.

The bar on recovery of pure economic losses in relation to catastrophic events such as an oil spill has been rationalized on efficiency grounds.⁵⁷ There are two components to the argument. The

⁵³ See THOMAS NAGEL, *MORTAL QUESTIONS*, Ch 3 (1979), Ch 3; BERNARD WILLIAMS, *MORAL LUCK* (1981).

⁵⁴ See Shavell, *supra* note 8.

⁵⁵ See Herbert Bernstein, *Civil Liability for Pure Economic Loss Under American Tort Law*, 46 AM. J. COMP. L. SUPP. 111 (1998) (position in US); Jane Stapleton, *Comparative Economic Loss: Lessons from Case-Law-Focused “Middle Theory”*, 50 U.C.L.A. L. REV. 531 (2002) (position in UK, Australia and Canada).

⁵⁶ *Cattle v Stockton Waterworks Co* (1875) 10 QB 453, 457-58; *Robins Dry Dock & Repair Co v Flint* 275 US 303 (1927); *Union Oil Co v Oppen* 501 F 2d 558 (9th Cir 1974); *Murphy v Brentwood District Council* [1991] 1 AC 398.

⁵⁷ William Bishop, *Economic Loss in Tort*, 2 OX. J. LEG. STUD. 1 (1982); William Bishop & John Sutton, *Efficiency and Justice in Tort Damages: The Shortcomings of the Pecuniary Loss Rule*, 15 J. LEG. STUD. 347 (1986); Victor P. Goldberg, *Recovery for Economic Loss Following the Exxon Valdez Oil Spill*, 23 J. LEG. STUD. 1, 14-27 (1994) *cf* Giuseppe Dari-Mattiacci & Hans-Bernd Schäfer, *The Core of Pure Economic Loss*, 27 INT’L REV. L. & ECON. 8 (2007). However, it seems we should be cautious of presuming that the common law

first is the principled objection that in many cases, the private losses following such events greatly exceed the net social losses. To return to our example of the oil spill, the hotelier might take action to mitigate his losses. Moreover, suppliers of substitute accommodation—say in another part of the country where the tourists go instead—might benefit from these circumstances. That is to say, some or all of these losses might be ‘pure’ pecuniary externalities in the sense identified by Scitovsky.⁵⁸ To the extent that one party’s loss is another’s opportunity, deterrence is inappropriate.⁵⁹ Where the harm is truly systemic, in the sense that it has a negative impact on the economy at large, then this rationale no longer seems convincing.

The difficulties for tort liability in relation to systemic harms go deeper than the casuistic legal distinction between ‘pure’ economic losses and economic losses consequent on physical injury. It is because, for financial firms, the bankruptcy of the firm is itself typically the *cause* of systemic harm. If bankruptcy is the causal event, then the imposition of liability in such states of the world will make no difference to the firm’s incentives—when things go wrong, it is bankrupt anyway.⁶⁰ The problem could be partially resolved by introducing personal liability for shareholders in the case of systemic harms, long advocated as a response to the way that shareholder limited liability dulls the deterrent effect of tort liability.⁶¹ But precisely because bankruptcy of financial firms is a trigger for systemic harms, politicians have powerful incentives to avoid it through bailouts. Consequently, even if liability could be imposed on shareholders in bankruptcy, then if government bailouts occur (or are expected to occur) the deterrent effect of such liability would be undermined.

D. Regulation and Shareholder Value

precedent-production process will necessarily result in an evolution towards socially efficient rules. In a recent study, Niblett et al. examined the evolution over time of the application of the economic loss rule in factually-similar disputes across the United States: Anthony Niblett, Richard A. Posner & Andrei Shleifer, *The Evolution of a Legal Rule*, 39 J. LEG. STUD. 325 (2010). They found growing dispersion, rather than convergence, in state law approaches to the rule’s scope, which seems to contradict claims about evolution toward efficiency, given that the factual circumstances do not differ materially across states.

⁵⁸ *Supra*, note 39. .

⁵⁹ If liability is purely negligence-based, then in theory setting damages in excess of social cost will not result in over-deterrence, provided judges are able to set the required standard of care at the level at which marginal benefits from additional precautions equal marginal reductions in social cost. See Urs Schweizer, *Tortious Acts Affecting Markets*, 27 INT’L REV. L. & ECON. 49, 53-54 (2007). However, it is unrealistic to suppose that judges can set the standard of care at the efficient level if they are unable to quantify the net social cost.

⁶⁰ For an analysis of this feature of financial firm bankruptcy in relation to risk-taking incentives vis-a-vis creditors (‘financial agency costs’), see Richard Squire, *Shareholder Opportunism in a World of Risky Debt*, 110 Harv. L. Rev. 1152 (2010).

⁶¹ See Hansmann and Kraakman, *supra* note 7. Indeed, for much of the early part of the twentieth century, shareholders in banks actually faced extended liability—set at double the nominal capital of their shares—in the case of the bankruptcy of their firm.

A third well-known response to the problem of social costs posits that regulators should impose a penalty or tax on an activity that generates negative externalities, such that the full social cost of its activities are imposed upon the firm.⁶² In the presence of appropriately-priced Pigouvian taxes, then the firm has incentives either to reduce the level of the activity in question, or to take precautions against harm up to the extent to which they are socially cost-justified. Under such circumstances, the shareholder value norm operates virtuously. Because social costs have been factored into the firm's bottom line, then the share price will reflect residual returns *after* social costs are taken into account. Shareholder value maximization therefore focuses managers' attention on ways of reducing the social cost of the activities in question.

More precisely, shareholder value maximization focuses managers' attention on ways of reducing the regulatory tax that the firm incurs on its activities, much like the firm would seek to minimize any other tax. One approach is to innovate new ways of performing the activity in question that yield lower social costs. This will both reduce social costs and increase profits to shareholders, and so is clearly a desirable outcome. Innovation of this sort is commonly assumed by proponents of regulation to be one of the desirable side-effects of the imposition of Pigouvian taxes. However, there is an alternative way in which shareholder value might be enhanced, which is not socially desirable.

The alternative is for the firm to exploit differences between textbook and real-world regulators, which generate what we term "regulatory slack." These differences comprise first, the under-specification of regulatory terms, which can leave considerable space for firm-level discretionary action; second, the under-enforcement of regulation because of the scarcity of regulatory resources; and third, information asymmetries between managers and regulators regarding the firm's conduct, which favor actors within the firm over the regulators.⁶³ In other words, weaknesses in the

⁶² This owes its origins to the work of the economist Arthur Pigou: ARTHUR C. PIGOU, *THE ECONOMICS OF WELFARE*, 168-71 (1920). Pigou conversely suggested that subsidies be deployed in relation to activities carrying positive externalities.

⁶³ A separate concern is that regulators may have inferior knowledge to firm-level actors as to the sources of systemic risk and firms may exploit this informational asymmetry for competitive advantage. For example, the Basel II accord permits banks to use "advanced methods" to compute own-firm risk-weighted assets to compute required capital on the basis of in-house measures of riskiness. This methodology had been taken on board by European banks and the large US investment banks, which persuaded the SEC to permit them to apply the "advanced methods" of Basel II in their capital calculations. As respects trading assets, this relied on the Value at Risk ('VAR') framework. VAR is a measure of the maximum potential exposure of a portfolio over a specified period of time and within a specified confidence interval. The confidence interval employed under Basel II for trading positions was 99% over a 10 trading day period. To say a firm has a VAR of \$ x over an n -day period with a y % confidence interval means that \$ x will be its maximum possible loss in y out of 100 n -day periods. Basel II based the capital charge financial institutions were required to hold against trading books as their 10 trading-day VAR with a 99% confidence interval, times a "multiplicative factor" between 1 and 3. Philippe Jorion, *Value at Risk*, 3rd ed (2007), 62-3. The drawback with this approach is that expected return for a given capital charge can be maximized by increasing the severity of the anticipated losses in the 1% of cases in which the 99% confidence interval is exceeded. VAR may be a helpful rule of thumb for asset managers, but as a way of calculating capital charges, it becomes a way of exploiting regulatory slack. This not just a

implementation of real-world regulation leaves gaps in the extent of the activities which are priced into the regulatory tax. A firm focused on minimizing the regulatory price of its activities now has a choice: either to innovate new processes (as conventional theory implies) or to reorient its activities so that they fall more squarely within the gaps. Of course if arbitrage, rather than innovation, is pursued, then the social costs of the firm's activities will fail to be internalized.

The financial crisis provides many examples of regulatory slack. For example, US banks have long been subject to minimum capital requirements based on both risk weighted assets and a minimum leverage ratio of tier 1 capital.⁶⁴ Firms exploited these regulations in many ways: "risk weighting" was flouted by loading up on the riskiest assets within a risk class; leverage was flouted by the creation of entities that qualified as "off-balance" for accounting purposes but were supported by the bank's explicit and implicit liquidity and solvency guarantees; capital was degraded by the use of various hybrid securities that did not sustain investor confidence in a crisis. The implementation of complicated schemes like the Volcker Rule⁶⁵ and the swaps "push out" rule⁶⁶ will necessarily give to considerable regulatory slack. Thus the effectiveness of regulation should not be overstated. Complementary corporate governance is a necessary ally in the control of systemic externalities.

Of course, the mere existence of opportunities for arbitrage does not itself imply that exploiting them will be the cost-minimizing strategy for the firm. This depends on the relative costs of

theoretical concern. In a study of the four largest UK banks during the 2007-09 period, Haldane found that actual trading book write-downs far exceeded reserved capital computed using "advanced methods"; the effect amounted to an average capital shortfall of approximately 1.4 percent (meaning, that a bank claiming capital of 9 percent on a risk-weighted basis had overstated its capital, which actually was only 7.6 percent). See Andrew Haldane, Capital Discipline (Jan. 2011) (especially charts 3 and 4), available at <http://www.bankofengland.co.uk/publications/speeches/2011/speech484.pdf>.

⁶⁴ See generally Richard Carnell, Jonathan Macey & Geoffrey Miller, *The Law of Banking and Financial Institutions* 215-232 (5th ed. 2013); Danial Tarullo, *The Evolution of Capital Regulation* (Nov. 9, 2011), <http://www.federalreserve.gov/newsevents/speech/tarullo20111109a.htm>. For the current implementation of the Basel III capital rules and the imposition of a leverage requirement, with references to prior discussion of problems, see the July 2, 2013 US Treasury-Federal Reserve Board Release, REGULATORY CAPITAL RULES, IMPLEMENTATION OF BASEL II, CAPITAL ADEQUACY, TRANSITION PROVISIONS, PROMPT CORRECTIVE ACTION, STANDARDIZED APPROACH FOR RISK-WEIGHTED ASSETS, MARKET DISCIPLINE AND DISCLOSURE REQUIREMENTS, ADVANCED APPROACHES RISK-BASED CAPITAL RULES, AND MARKET RISK CAPITAL RULE, -- Fed. Reg. -- (July 2013), available at <http://www.federalreserve.gov/bcreg20130702a.pdf>. For problems historical and current in risk-weighting, see Vanessa Le Lesle & Sofiya Avramova, *Revisiting Risk-Weighted Assets*, IMF W.P. 12/90 (March 2012), available at <http://www.federalreserve.gov/newsevents/speech/tarullo20111109a.htm>; Sonali Sas & Amadou N.R. Sy, *How Risky Are Banks' Risk-Weighted Assets? Evidence from the Financial Crisis*, IMF W.P. 12/36 (2012), available at <http://www.asbaweb.org/e-news/enews-29/super/6%20SUPER.pdf>.

⁶⁵ Section 619, Dodd-Frank Act. The effort to distinguish between "market making" and "hedging" as required by the Volcker Rule's and otherwise to implement the statutory mandate to eliminate proprietary trading by systemically important banks has led to a protracted regulatory process. A lengthy proposal was issued in October 2011, comments were taken, and no reproposal has yet emerged.

⁶⁶ Section 716, Dodd-Frank Act. The swaps push out requires banks to move certain swaps activities (to the extent non-risk mitigating) to a separately capitalized non-bank affiliate.

innovation versus arbitrage. We might therefore conclude that the appropriate policy response to the indubitable existence of regulatory slack is to seek to minimize it: to channel greater resources toward regulation so as to minimize regulatory gaps and to increase the intensity of enforcement. What matters is not so much whether any slack remains in the system—it always will—but rather whether it has been reduced to the extent that it is more costly for firms to exploit this by way of arbitrage than it is for them to innovate new processes.

Unfortunately this approach overlooks the adverse impact of shareholder value maximization on the regulatory design process itself. Firms focused on minimizing their regulatory costs can seek to do so not only by exploiting slack within the current regulatory set-up, but by seeking to influence the production and enforcement of regulation so as to maximize the effective amount of slack. Firms are not just “price-takers”; they can try to change regulatory prices. The constitutional framework partially determines the extent to which firms are able to exert influence of this sort—encompassing political donations, lobbying campaigns, sponsorship of directed research, revolving door employment opportunities for regulators and aggressive legal challenges to regulatory decisions, to name but a few. The firm’s real choice when it comes to cost-minimization is therefore innovation versus influence.

While it may be impossible to say *a priori* which of these strategies will be cost-minimizing for the firm, there are strong reasons for thinking influence is often likely to dominate. This is because if the firm invests in innovation, it will then be exposed to the risk of renegotiation or recalculation by the regulator, whereby an *ex post* increase in the level of regulatory tax will reduce the net returns to shareholders. If the firm cannot be certain *ex ante* that such renegotiation will not occur, then it will be hard to price the expected returns to investment in innovation. Investments in influencing the regulator will be much easier to price, however, because to the extent to which they are successful, they will give the firm certainty over the likely regulatory costs *ex post*. In other words, it is likely that a firm committed to minimizing its regulatory costs will always want to pursue a strategy of influencing the regulator. The closer the focus on cost-minimization, which the shareholder value norm achieves, the more intense we may expect this undermining of regulatory pricing of social cost to become.

The limitations of regulatory internalization mechanisms are of course well-canvassed in the literature, even if their negative synergies with shareholder value have not received so much attention. Others have drawn attention to private, rather than public, mechanisms for achieving internalization of costs—respectively by contract and, where contracting is not possible, through tort law.

III. Systemic Externalities and Shareholder Value

The case for implementation of the shareholder value norm in corporate governance rests on its utility as a means of rendering managers accountable to shareholders. For most firms, this case is very strong; if left to their own devices, managers would likely prefer to run firms in accordance with their own interests, rather than the interests of shareholders. Where the firm's activities involve potential externalities, it is conventionally assumed that the costs of these activities are internalized into the firm's profit function through the mechanisms described in section II. To the extent that these mechanisms do not function perfectly, the standard view of corporate governance sees the relationship between externalities and shareholder value as a trade-off. Tying managerial returns to stock price performance as a means of controlling managerial agency costs is thought to generate greater value for shareholders than the social cost associated with externalities.⁶⁷ In Section II, we showed that for systemic externalities, the social costs are likely to be very large, because of the particular weakness of the ordinary control mechanisms. An advocate of shareholder value might accept our reasoning but nevertheless assert that the determination of net welfare is ultimately an empirical question; without further evidence no case is made out for relaxing the shareholder value norm. In this section, we challenge the other part of the trade-off: we show that in the presence of systemic externalities, the shareholder value norm—that is, tying managerial incentives to the maximization of the stock price—*does not in fact promote the interests of the majority of shareholders*. As a result, there is a powerful case for the modification of internal corporate governance arrangements where systemic externalities are present.

A. *Maximizing the stock price*

A central tenet of modern portfolio theory is that diversification reduces portfolio risk. By spreading capital across many uncorrelated investments comprising a portfolio, the idiosyncratic risk associated with individual investments can be eliminated at the portfolio level, with the investor consequently needing to be compensated only for bearing market risk. It has long been understood that limited liability for shareholders fosters diversification in this way and consequently lowers overall risk-bearing costs for firms.⁶⁸

One of the most important ideas in modern corporate governance—that it is desirable to encourage managerial risk-taking—is based on this premise. Diversified shareholders may be expected to behave, as regards decisions over idiosyncratic risks, as though they are risk-neutral. Consequently, the stock price, which reflects their demand function, will respond to changes in the firm's expected returns but not to idiosyncratic risks. Individual managers running firms, however, are likely to have significant amounts of undiversified human capital tied up in the firm. Consequently managers may be expected to exhibit greater risk aversion than diversified shareholders would prefer.

⁶⁷ The issue is therefore a distributional concern, rather than a matter of efficiency.

⁶⁸ FRANK H. EASTERBOOK AND DANIEL R. FISCHEL, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* (1991), 41-44.

This creates a problem: managers may shun projects that have higher net present values because their returns are more volatile. Negative outcomes may lead to managerial termination (in part because outsiders' inability to distinguish between a good bet gone bad and a bad bet) or even the firm's bankruptcy.

Modern thinking on corporate governance focuses on particular mechanisms to address the mismatch of risk preferences between diversified shareholders and managers, with the goal of giving managers incentives not to pass up positive Net Present Value projects because of risk aversion. The way in which this is implemented has two aspects. First, managers are given a 'carrot' in the form of equity-linked compensation, especially stock options. Options increase managers' returns in good states of the world, but cost them nothing in bad states of the world. They consequently encourage managers to focus more on good outcomes, and less on bad, thereby reducing risk aversion. Of course, the lack of diversification means that it is relatively expensive—in terms of the dollar sums that must be paid to executives—to overcome risk aversion in this way.⁶⁹

Second, directors and officers are given a shield from liability for breach of their duty of care through the 'business judgment rule'. This provides that where a business decision is taken in good faith on the basis of adequate information, it will not be open to challenge in a shareholder suit unless the decision resulted in 'waste'—dissipation of corporate assets so egregious that no decision-maker could plausibly have justified it in good faith.⁷⁰ The rationale for the business judgment rule is frequently stated as being to mitigate the problem of managerial risk-aversion we have just described, framed in terms of the interests of diversified shareholder.

Chancellor Allen explained the rationale as follows in the Delaware case of *Gagliardi v. Trifoods International, Inc.*⁷¹:

"Shareholders don't want (or shouldn't rationally want) directors to be risk averse. Shareholders' investment interests, across the full range of their diversifiable equity investments, will be maximized if corporate directors and managers honestly assess risk and reward and accept for the corporation the highest risk adjusted returns available that are above the firm's cost of capital.

"But directors will tend to deviate from this rational acceptance of corporate risk *if* in authorizing the corporation to undertake a risky investment, the directors must assume some degree of personal risk relating to *ex post facto* claims of derivative liability for any resulting corporate loss."

⁶⁹ Martin J. Conyon, John E. Core and Wayne R. Guay, Are US CEOs Paid More than UK CEOs? Inferences from Risk-adjusted Pay, working paper 2009 <http://ssrn.com/abstract=907469> (using reasonable estimates of risk premiums, risk-adjusted US CEO pay does not appear large compared to that of UK CEOs).

⁷⁰ See, e.g., ALI Principles of Corporate Governance, § 4.01. The rule is sometimes styled as a "presumption" that directors have met their burden of good faith and due inquiry unless plaintiff can show evidence to the contrary.

⁷¹ 683 A. 2d 1049 at 1052-3 (Del. Ch. 1996).

Judge Winter also sounded this theme as well in the well-known U.S. Court of Appeals case, *Joy v. North*:⁷²

[B]ecause potential profit often corresponds to the potential risk, it is very much in the interest of shareholders that the law not create incentives for overly cautious corporate decisions. Some opportunities offer great profits at the risk of very substantial losses, while the alternatives offer less risk of loss but also less potential profit. Shareholders can reduce the volatility of risk by diversifying their holdings. In the case of the diversified shareholder, the seemingly more risky alternatives may well be the best choice since great losses in some stocks will over time be offset by even greater gains in others. Given mutual funds and similar forms of diversified investment, courts need not bend over backwards to give special protection to shareholders who refuse to reduce the volatility of risk by not diversifying. A rule which penalizes the choice of seemingly riskier alternatives thus may not be in the interest of shareholders generally.”

The point of the business judgment rule is not to sanction negligence. Rather, the rule is premised on the view that the encouragement of business risk taking requires acceptance of the inevitability of business failures and that a liability rule premised on negligence will result in hindsight bias determinations. Thus as Chancellor Allen concludes in *Gagliardi*:

If ... corporate directors were to be found liable for a corporate loss from a risky project on the ground that the investment was too risky (foolishly risky! stupidly risky! egregiously risky!— you supply the adverb), their liability would be joint and several for the whole loss (with I suppose a right of contribution). Given the scale of operation of modern public corporations, this stupefying disjunction between risk and reward for corporate directors threatens undesirable effects. Given this disjunction, only a very small probability of director liability based on “negligence”, “inattention”, “waste”, etc., could induce a board to avoid authorizing risky investment projects to any extent! Obviously, it is in the shareholders' economic interest to offer sufficient protection to directors from liability for negligence, etc., to allow directors to conclude that, as a practical matter, there is no risk that, if they act in good faith and meet minimal proceduralist standards of attention, they can face liability as a result of a business loss.”⁷³

In sum, the structure of corporate governance arrangements, at least in the United States, is explicitly directed towards encouraging managers to undertake the highest-NPV projects available to them, regardless of their level of risk. More specifically, the use of options as a ‘carrot’ coupled with the absence of any liability ‘stick’, encourages managers to focus on activities that will increase the stock price over the time horizon of their option.

⁷² 692 F.2d 880, 886 (2d Cir. 1982), cert den. 460 U.S. 1051 (1983) (footnotes omitted, including note 6, which famously works out an example illustrating the difference between expected return and risk). It is noteworthy that Chancellor Allen explicitly embraced this understanding of the basis for the business judgment rule. See *In re Caremark Int'l Deriv. Litig.*, 698 A.2d 959, 967 n. 16 (Del. Ch. 1996).

⁷³ 683 A.2d at 1052-53. Similar thinking grounded the adoption in Delaware and elsewhere of permissive liability exculpation statutes for breach of the duty of care following *Smith v. Van Gorkom*, 488 A. 2d 858 (Del. 1985). See DGCL § 102(b)(7).

B. Market Risk

The foregoing framework assumes that the risks related to particular projects among which managers choose are idiosyncratic.⁷⁴ This assumption is invalid, however, if some projects have the potential to contribute to market risk. ‘Market risk’ is defined as the component of portfolio risk which cannot be avoided by diversification.⁷⁵ We normally assume that while individual firms’ returns are affected by market risk, the success or failure of their projects does not have any impact on the aggregate market risk. In other words, market risk reflects exogenous macroeconomic volatility, which affects firms, but not vice versa. The intuition behind this is that if a project (or firm) fails, this will only affect that firm, or at worst, a few others sufficiently proximate to the activity in question to suffer loss.⁷⁶

However, if a bad state realization causes sufficiently widespread losses to other firms, then it is better understood as affecting market risk. Consequently investors will be unable to diversify this away. The financial sector provides an intuitive example. The closure, even temporarily, of a bank involved in the payments system would lead to widespread social costs being borne by other users of the payments system.⁷⁷ Such costs would be felt by firms generally, and hence increasing the risk of an individual bank’s failure will impose expected costs on other firms generally, and likely increase the volatility of their returns. Thus activities that increase the risk of bank failure would both lower expected returns and increase volatility for the market as a whole.

The consequence of this is to damage the interests of a diversified shareholder in two ways. First, a harm that is genuinely systemic will reduce expected returns across a sufficiently wide cross-section of firms as to undermine diversification;⁷⁸ second, the additional market risk will increase the expected return premium required to compensate for such risk. The combined effect will be to reduce stock prices throughout the diversified portfolio and to impose losses on a diversified shareholder that far exceed the losses on the failed bank. Critically, the expected single-firm gains associated with ratcheting up the risk-taking by the bank will be swamped by the expected increase in portfolio-wide losses that such risk-taking would entail.

The consequences of an exclusive focus on maximizing the share price in a systemically important firm can be illustrated with a simple numerical example. The example illustrates the

⁷⁴ See Easterbrook and Fischel, *supra* note 68, at 99 (“Shareholders ... readily diversify risk through capital markets”).

⁷⁵ Brealey & Myers, 143.

⁷⁶ Indeed, in a competitive industry, the failure of one firm may strengthen the market position of rivals.

⁷⁷ For example, the UK’s Royal Bank of Scotland suffered a software malfunction which caused its payments processing to shut down transactions for over 17 million accounts for three days in June 2012. See Brooke Masters, Elaine Moore and Jim Pickard, *The Upgrade that Downed Royal Bank of Scotland*, *Fin. Times*, June 25, 2012.

⁷⁸ To be sure, some firms will do better as consumers substitute into cheaper goods, but the economic contraction will produce many more losers than winners.

conflict of interest between a manager (or other controller) with incentives to maximize the share price and the diversified shareholders. We generalize and formalize the point in an Appendix.

Take the case of a systemically important Bank with an equity value of \$1 million, divided between a Manager holding \$500,000 in equity and Diversified Shareholders holding \$500,000. The Diversified Shareholders also hold \$100 million of equity in a portfolio of other firms. Assume that Manager can cause the Bank to pursue a risky strategy with a 90 percent chance of success, producing a payoff of \$333,000, but carrying a 10% chance of the Bank's failure, with a loss of the entire equity value.⁷⁹ The expected payoff to the Bank's shareholders as a group is \$200,000, the weighted average of the two conditional payoffs;⁸⁰ their expected return is 20%, the weighted average of the two conditional returns.⁸¹

Let analyze the project from the different perspectives of Manager and the Diversified Shareholders. The expected value of the project to Manager is \$100,000, reflecting Manager's 50% ownership interest, a 20% expected return. But the Diversified Shareholders, unlike Manager, hold shares in other firms. Because of this, the Diversified Shareholders' payoff function is different. Assume that the Bank's failure is associated with a negative 10% systemic effect. The Diversified Shareholders, unlike Manager, will bear losses associated with that systemic effect. The expected value for the Diversified Shareholders from the Manager's pursuit of the risky strategy is thus negative \$900,000, reflecting expected gains on its Bank investment (+ \$100,000) but expected losses on its diversified portfolio (-\$1 million).⁸² The Bank's pursuit of the risky strategy has resulted in an expected return to the Diversified Shareholders of negative 180% on their investment in Bank.⁸³

The example shows that the expected gains from the Manager's single-minded effort to maximize the value of Bank's stock can be swamped, from the perspective of the Diversified Shareholders who hold stock in the Bank, by the systemic effect from the Bank's failure. The example makes simplifying assumptions, of course, some of which we relax in the Appendix,⁸⁴ but the point holds: if the additional expected returns from risk-taking are high enough, the managers (or other controllers) will find it rational to pursue risk-taking that diversified shareholders would find irrational. Compensation mechanisms that governance theory has generally embraced—high-powered incentives that overcome managerial risk-aversion, payoff structures that strip out market effects—exacerbate the conflict between managers and shareholders in the systemically important financial firm.

⁷⁹ In the case of Bank, a resolution process that wipes out the complete equity value. Since our point is to focus on the conflict within shareholder groups, we ignore possible creditor losses.

⁸⁰ Here is the arithmetic: $(0.9 \times 333,000) + (0.1 \times -1,000,000) = \$200,000$.

⁸¹ The arithmetic: $(0.9 \times 33\%) + (.1 \times -100\%) = 20\%$.

⁸² The arithmetic: $.5[(0.9 \times 333,000) + (0.1 \times -1,000,000)] - (0.10 \times 0.10(100,000,000)) = -\$900,000$.

⁸³ The rate of return for Diversified Shareholders on their Bank investment is $-\$900,000/\$500,000 = -180\%$.

⁸⁴ For example, we take explicit account of Manager's relative risk aversion in the Appendix .

So, where systemic harms are concerned, diversified shareholders may prefer that the bank pursue more conservative projects, while managers with high powered incentives (or undiversified controllers) would prefer the bank pursue more risky projects. The most startling thing about this result is that it is an outright reversal of the ordinary framework for corporate governance. Diversified shareholders, instead of wanting managers to take *more* risk than the latter are wont to do, actually want them to take *less* risk. This theoretical claim is consistent with empirical research associating greater risk-taking prior to the financial crisis, and greater losses during the crisis, with the existence of a controlling shareholder,⁸⁵ and greater shareholder rights.⁸⁶

Another consequence is that the systemic bank's increased risk-taking that threatens the interests of diversified shareholders nevertheless increases demand for the stock and thus fuels further stock price increases. This is because diversified shareholders would be better off holding stock in the risk-taking systemic bank rather than exiting, one way that a diversified holder may exert influence,⁸⁷ or not buying in. This is because holding the bank's stock is partly compensatory for the inescapable systemic effect of the bank's failure. If diversified shareholders hold no stock, they face the downside of potential systemic distress costs – since the systemic bank's failure imposes losses throughout the economy -- but none of the benefit of successful risk taking.⁸⁸ The perverse result that the bank's stock may rise as it embarks on greater risk-taking, if only because of defensive purchases by diversified shareholders. If diversified shareholders believe that returns will increase with risk, they will add to the demand for the bank's stock even if they are also aware of the increased systemic risk. This is an additional channel through which a focus on maximizing the stock price will spur managers of a systemically important financial firm to take on additional risk.⁸⁹

Stock prices impound own-firm expected returns from increased risk taking, but not the potential harms to other firms. Thus for systemically important firms, encouraging managers to take more risks achieves precisely the opposite result to that which is desirable ordinarily.

Another way to frame the point is this: for the typical non-financial firm, the concept of “excessive” risk-taking has little meaning from the shareholder perspective. So long as the firm is taking its best net present value projects, diversified shareholders (or shareholders who could be

⁸⁵ Luc Laeven and Ross Levine, *Bank Governance, Regulation and Risk Taking*, 93 J. Fin. Econ. 259 (2009) (greater bank risk-taking associated with greater shareholder rights and greater ownership concentration);

⁸⁶ Daniel Ferreira, David Kershaw, Tom Kirchmaier and Edmund-Philipp Schuster, *Shareholder Empowerment and Bank Bailouts*, LSE Financial Markets Group Discussion Paper 714 (2012) (Higher levels of shareholder empowerment amongst US banks associated with increased probability of receiving TARP funds).

⁸⁷ See, e.g., Anat R. Admati & Paul Pfleiderer, *The “Wall Street Walk” and Shareholder Activism: Exit as a Form of Voice*, 22 Rev. Fin. Stud. 2645 (2009)

⁸⁸ In terms of the example in the text, the Diversified Shareholders would face the 0.1x0.1(10,000,000) expected loss without the expected loss without the compensating benefit of the 0.5(\$200,000) expected gain.

⁸⁹ See Rüdiger Fahlenbrach and René M. Stulz, *Bank CEO Incentives and the Credit Crisis*, 99 J. Fin. Econ. 11 (2011) (banks whose chief executives had greater incentives to increase the stock price suffered greater losses during the financial crisis).

diversified) should be satisfied, even if the firm is not successful. The portfolio of firms following such a strategy should outperform a portfolio of “safer” firms. For systemically important financial firms, the matter is quite different. To be sure, risk-taking is inevitable, but “excessive” risk-taking is meaningful and objectionable, from the diversified shareholder perspective. This is because the failure of a systemically important firm produces losses across the portfolio.

C. Summary

We have argued that the ordinary mechanisms used to internalize social costs do not operate effectively for systemic harms. We have also argued that in the absence of such constraints on the internalization of social costs, the interests of diversified shareholders and controllers (including managers and concentrated owners) diverge over the appropriate level of risk-taking for activities capable of giving rise to systemic harms. Under these circumstances, encouraging managers to focus on maximizing the share price will result in excessive risk-taking not only from the standpoint of third parties, but also as regards the interests of diversified shareholders. As a result, relaxing the shareholder value norm in such circumstances does not engender the conflict between agency costs and externalities its defenders normally identify. The case for relaxing the shareholder value norm in such cases seems unusually strong.

IV. Fashioning a Corporate Governance Solution for Excessive Risk Taking by the Systemically Important Financial Firm

A. Regulatory Relaxation of the Shareholder Value Norm: Rules on Executive Pay

Put together, we believe that the failures of cost internalization that produce unchecked risks of systemic distress make the case for a relaxation of the shareholder value norm for systemically important financial firms. This has already begun to happen through regulatory initiatives in relation to executive pay. A plethora of policy proposals have been put forward seeking to modify the way in which financial institution executives are paid so as to generate incentives that are more focused on the long term.⁹⁰ These ideas have been taken up by regulators around the world: in April 2009, G20 representatives agreed a set of guidelines detailing how member states’ financial regulators were expected to align performance-related pay more effectively with the long term and risk adjusted performance of financial firms.⁹¹

⁹⁰ See, e.g., Lucian A. Bebchuk and Holger Spamann, *Regulating Bankers’ Pay*, 98 Geo LJ 247 (2009); Sanjai Bhagat and Roberta Romano, *Reforming Executive Compensation: Focusing and Committing to the Long-Term*, 26 Yale J Reg 359 (2009).

⁹¹ Financial Stability Forum, *FSF Principles for Sound Compensation Practices* (2009).

We do not doubt the potential for improvement in the control of systemic externalities that may be achieved through such measures, and so we are generally supportive of the thrust of these reforms. However, we are skeptical about their implementation through regulatory prescriptions,⁹² which rely for their efficacy on the ability of the regulator to devise and implement appropriate rules. Such an approach suffers from fundamental weaknesses in our view.⁹³ First, regulators must specify their scope and content in advance. Given the blurriness of the boundaries of systemic externality problems, pre-specification of scope looks to us at best to be incomplete and at worst an invitation to regulatory arbitrage and influence by regulated firms. Second, pre-specification of content imposes the same model on all applicable firms, which is problematic if there is—as is widely assumed to be the case—heterogeneity at the firm level as regards which governance structures are appropriate. In short, the solution is unlikely to be effective. Third, reliance on regulatory prescription is subject to the very weaknesses we documented in regulatory controls of externalities. While in the short run public outcry may be enough to secure the implementation of some headline rules, we may expect their application to be systematically weakened over time through concerted lobbying by the regulated firms.⁹⁴

These weaknesses can readily be illustrated by the implementation of the G20 Principles regarding compensation practices in financial institutions. On the one hand, these require variable compensation awards to be adjusted *ex ante* in accordance with the riskiness of the activities undertaken.⁹⁵ Easy to state in principle, this idea is hard to implement in practice, because it requires a benchmark of risk. On the other hand, they also require performance-related pay to vary with *ex post* realizations of risk outcomes, over a sufficiently long period of time. For example, in relation to senior executives,⁹⁶ 40-60% of variable pay should be *deferred* for a period of at least 3 years.⁹⁷ It is unclear what magic lies in these particular numbers. And consistently with our observations about

⁹² See eg, FSA, Revising the Remuneration Code, Consultation Paper 10/19 (2010); US Treasury Department et al, [Incentive-Based Compensation Arrangements; Proposed Rule](#) 76 Fed Reg 21169 (2011); European Commission and Parliament, Proposed CRD IV, [text agreed by European Parliament and Council in April 2013: 2011/0203 7746/13 \(2013\)](#), Arts 73-91.

⁹³ The two sets of reforms described suffer from a third, contingent, limitation. They are limited in their scope to executives and boards. Consequently they do not address the particular problems we have identified in relation to controlling shareholders.

⁹⁴ See PEPPER D. CULPEPPER, QUIET POLITICS AND BUSINESS POWER, 1-24 (2011); John C. Coffee, Jr., *The Political Economy of Dodd-Frank: Why Financial Reform Tends to be Frustrated and Systemic Risk Perpetuated*, 97 CORNELL L. REV. 1019 (2012).

⁹⁵ See Directive 2006/48/EC, as amended by Directive 2010/76/EU, Annex V section 11 paras 23(g) and (n).

⁹⁶ And other employees whose actions have a material impact on the firm's risk exposure.

⁹⁷ *Ibid.*

regulatory influence, the rules applying these Guidelines in the US have been held up by industry lobbying and inter-agency wrangling such that no effective changes have yet been implemented.⁹⁸

B. Relaxation of the Shareholder Value Norm through Liability Rules

We propose an additional measure: the introduction of personal liability for those who control and monitor the strategy of systemically important firms. This consequently creates a significant role for court-developed *standards* in the governance of such firms. This in turn implies no great leap of credulity. Such standards—in the form of fiduciary duties—are at the core of the corporate law of Delaware, arguably the most successful in the world. We propose that liability standards be extended to those controlling systemically important firms so as to engender *countervailing* incentives (a “stick”) to offset the high-powered “carrot” of stock price enhancement.

Liability standards avoid the problems that undermine regulatory rules described in Section IV.A. Because compliance with standards is fleshed out *ex post* by courts, problems of arbitrage one-size-fits-all straitjackets of content can be mitigated. Moreover, because enforcement is in the hands of private plaintiffs, rather than regulators, opportunities for lobbying to undermine their robustness are much reduced. To be sure, liability standards suffer from weaknesses of their own. Consequently we do not advocate them as a stand-alone solution, but rather as a useful complement to the regulatory changes already being implemented, which we sketched in Section IV.A.

Our proposal, in brief, is as follows. First, a review framework in which managers have a duty to address the conflicts of interest embedded in high-powered performance incentives through obtaining board level review of risk-taking that may give rise to systemic harms, effectuated through a risk-management committee process, akin to a “special committee” process in other areas of significant conflict. Second, an oversight framework in which the board has oversight responsibility for the level of risk-taking by the firm, not just its compliance with applicable legal norms. Third, a negligence-based liability framework, because the risk-neutral heuristic associated with the business judgment rule is not applicable to a systemically important firm.

In practice this would mean: (i) liability to the firm; (ii) triggered by a “serious loss” incurred by the firm; (iii) if (for officers and other controllers) there had been lack of candor in risk committee review or for a deficient risk review process, or (for directors), lack of care in risk-oversight; (iv) quantified, in terms of out-of-pocket costs for defendants, by reference to prior compensation; and (iv) liability so quantified not indemnifiable or insurable by the firm.

The goal of such a reform is simple: to force those with power over the actions of a systemically important firm to “see” the costs of risk-taking, since they are in the best position to affect the firm’s conduct and to devise a risk-management structure that will be effective at the

⁹⁸ Dodd-Frank Act §956 (provision for prohibition of “types of incentive-based compensation arrangement, that the regulators determine encourages inappropriate risks by covered financial institutions...”); US Treasury Department et al, [‘Incentive-Based Compensation Arrangements; Proposed Rule’](#) 76 Fed Reg 21169 (2011).

particular firm. At the board level, the objective is to induce board “ownership” of the firm’s risk, so that the board will take charge of understanding the level of risk-taking, and, where necessary, curb the risk-taking. This is what “risk oversight” means. We have argued that “excessive” risk-taking is a meaningful conception in the case of a systemically important financial firm. The challenge is to operationalize the concept. Since what counts as “excessive” cannot be spelled out via rule, since an effective risk review procedure cannot be established via prescription, board level accountability is an important element in the establishment of and adherence to appropriate risk parameters.

C. *Liability to the Firm*

Our proposal envisages those controlling a systemic firm facing liability *to their firm* for conflicts of interest or negligence as regards decisions capable of contributing to systemic risk. This at first seems counter-intuitive, as the problem of systemic risk is often framed as a conflict between the interests of the firm and of society. On this view, it is the firm that should face liability to society, rather than be the plaintiff in a claim engendered the same conduct. However, our analysis has suggested that the interests of diversified shareholders, its majoritarian owners—who will be the beneficiaries of a claim brought on behalf of the firm—are aligned with the wider interests of society in the case of systemic harms. In other words, the conflict is not so much between ‘the firm’ and society, but between the *controllers* of the firm and ‘society’, *including* the firm’s diversified shareholders.

Moreover, as we have shown, the ordinary application of tort liability fails as respects systemic harms.⁹⁹ Even if the normal rule barring recovery for economic loss were reversed, the fact that the liability would either be triggered by, or itself cause, the bankruptcy of the firm, would, respectively, either undermine the deterrent effect of liability, or itself trigger further systemic losses. It is therefore desirable for liability to be imposed in relation to conduct capable of giving rise to systemic harms *before* such harms actually occur. The diversified shareholders of a systemically important firm are uniquely positioned to take action in relation to such conduct; the deterrent effect of such liability can benefit society at large.

D. *Potential Defendants*

We focus attention on those *controlling* a corporation, because of the divergence between the interests of controlling and diversified shareholders in the case of systemic externalities. As such our proposal differs from much earlier work on corporate externalities—and indeed other work on corporate governance and banking—which focuses on potential liability of *shareholders*.

It is helpful to reflect on the classes of person involved in corporate governance. *Officers* are executives, tasked with making decisions about the running of the company. They consequently have

⁹⁹ *Supra*, text to notes 60-61.

the power to initiate corporate decision-making. They also typically face high-powered incentives derived from variable compensation packages. A large proportion of this variable compensation has come in recent years to be determined in accordance with the performance of the share price. This is an important—and, in the case of companies whose activities may spawn systemic externalities, we think problematic—instantiation of the shareholder value norm.

Directors, in contrast, are tasked with acting as monitors, serving to promote the interests of shareholders by overseeing the performance of the officers. Their control generally takes the form of veto rights, through board decision-making on proposals initiated by executives;¹⁰⁰ monitoring of performance reporting, and oversight of compensation and retention-decisions for senior managers. Although the directors' pay may include some stock-based compensation, the overall package is not high-powered like managers'. Their incentives are comparatively low-powered, driven by personal integrity and reputational concerns.¹⁰¹ Directors may also be officers, although in recent years the roles have become increasingly specialized, with the typical corporate board containing only one officer, the CEO.¹⁰²

The position of *controlling shareholders* also deserves special attention. We take 'controlling' to mean having enough voting power to influence significantly the outcome of a shareholder vote. While such persons do not enjoy formal day-to-day control rights, they do control the appointment of directors to the board, and through them the appointment of executives. As a result they will be able to select individuals who are willing to implement and oversee their preferred strategies, and will enjoy informal veto rights over many decisions.¹⁰³ They will be motivated by high-powered incentives derived from the performance of their share ownership stake.¹⁰⁴ Although the law establishes various presumptive thresholds for "control," the existence of a controlling shareholder in a particular firm often turns on questions of fact.¹⁰⁵

These categories of person between them face two different types of governance problem, which in turn track two different types of liability standard. On the one hand, *officers* with equity pay and *controlling shareholders* may face a conflict of interest as regards systemic externalities. Their personal financial interest lies in maximizing the performance of the stock price. Yet as we have shown, where the firm's activities may or do generate systemic externalities, share price maximization

¹⁰⁰ On the distinction between initiation and veto rights, see Eugene F. Fama and Michael C. Jensen, *Separation of Ownership and Control*, 26 J. L. & ECON. 301, 303-4 (1983) (distinguishing 'decision management' and 'decision control' functions).

¹⁰¹ See REINIER KRAAKMAN ET AL., *THE ANATOMY OF CORPORATE LAW*, 2nd ed., ___-___ (2009).

¹⁰² Jeffrey N. Gordon, *The Rise of Independent Directors in the United States, 1950-2005: Of Shareholder Value and Stock Market Prices*, 59 STANF. L. REV. 1465, 1476 (2007).

¹⁰³ See Andrei Shleifer and Robert W. Vishny, *A Survey of Corporate Governance*, 52 J. Fin. 737, 754-5 (1997).

¹⁰⁴ This incentive may be attenuated by 'private benefits' they are able to derive from their control of the firm, to the extent that the value of these does not move in tandem with the stock price.

¹⁰⁵ E.g., Bank Holding Company Act, §§ 2 (A),(C); 3 (25% voting power of "any class of voting securities" gives control; owner of less than 5% presumptively does not have control), codified at 12 U.S.C. § 1841(a).

is not in the interests of the shareholders *as a whole*. Consequently the management of risk by officers and controllers vis-a-vis systemic externalities can be understood as presenting a duty of loyalty problem, as with other circumstances involving conflicts of interest between controllers and diversified shareholders.

On the other hand, *directors* do not face direct financial conflicts. Rather, they face more genteel pressures of camaraderie and community between themselves and officers, which may have a subtly corrosive effect on their ability to monitor and exert oversight. Moreover, where controlling shareholders are in place, or where executives have *de facto* control of the directorial nomination process, then the directors will be pre-selected as individuals willing to toe the line in accordance with the wishes of the firm's real controller. Even absent these conflicts, they lack strong incentives to take adequate care in the oversight of the decisions of executives. Because directors' incentives are not direct financial ones, the obligation they face is best characterized as one of *due care*.¹⁰⁶

E. Risk-Taking and the Duty of Loyalty

It is hornbook law that a fiduciary is obliged to put his principal's welfare above his own.¹⁰⁷ Yet the modern application of the duty of loyalty, especially in the hands of the Delaware Court of Chancery, has come a long way from this. In corporations, conflicts of interest are acceptable on the part of those running the company provided that appropriate procedural and substantive safeguards are met.¹⁰⁸ The key procedural safeguards are two: first, full disclosure about the conflicted transaction by the insiders and second, approval by the independent directors or an independent board committee, tasked with determining whether the proposed transaction serves the interests of the unaffiliated shareholders.¹⁰⁹ The greater the conflict, the more onerous the 'job of work' the independents must perform, and the more carefully the court will examine the process and the outcome. Limit cases are parent-subsidary mergers, or going private transactions, in which courts will not only carefully scrutinize the *bona fides* of a "special committee" and its procedures, but may also review the transaction for "entire fairness."¹¹⁰ To similar effect is judicial review of special

¹⁰⁶ This is reflected in the focus on direct financial interest rather than "structural bias" in determining whether a particular director is "disinterested" for purposes of invoking the business judgment rule or for judicial deferral to a special committee decision. See Gordon, note 102 *supra*, at 1482-84 (discussing cases).

¹⁰⁷ A classic statement of "uncompromising rigidity" as regards fiduciary duties, hostile to all conflicted transactions, is *Meinhard v. Salmon*, 249 N.Y. 458 ().

¹⁰⁸ This development was furthered by the enactment of Del. Gen. Corp. L. §144 as part of the 1967 revision of the Delaware corporate statutes. See generally Blake Rohrbacher et al, *Finding Safe Harbor: Clarifying the Limited Application of Section 144*, 33 DEL. J. CORP. L. 1 (2008).

¹⁰⁹ E.g., *Weinberger v UOP*, 457 A.2d 701 (Del. 1983).

¹¹⁰ *Kahn v. Lynch Communication Sys., Inc.*, 638 A.2d 1115 (1994). Cf. *In re MFW Shareholders Litigation*, 67 A.2d 496 (Del. Ch. 2013) (procedural safeguards that achieve near-functional equivalence to arm's length bargaining may call for business judgment review even in parent-subsidary merger).

litigation committee decisions to dismiss derivative actions.¹¹¹ In cases in which controlling shareholders are not on both sides, however, the Delaware courts generally accord business judgment deference to the independent directors' decision.¹¹²

In the case of activities that have the potential to give rise to systemic externalities, the controller may prefer more of the activity to be undertaken, or with less precaution, than would diversified shareholders. Consequently decisions relating to such activities may deserve analogous treatment to other conflict of interest transactions. This should entail both full disclosure by the managers of the risks and *genuine* review by an independent risk committee of the board. Should risk-taking produce a "serious loss" (or the firm's failure), in subsequent shareholder litigation, the court should check the independence and diligence of the risk committee's review of the challenged strategy. The consequence of inadequate disclosure about the strategy or the committee's failure to conduct an adequate review should be a standard fiduciary remedy: disgorgement of gains made by the fiduciary. In this case, it would comprise recovery of equity-based pay received by senior managers the value of which was enhanced by the risk-taking strategy in question, reflected in the contemporary term "clawbacks." The regime thereby creates a powerful countervailing incentive for managers (and controlling shareholders) to take risk management seriously.

F. Risk-Taking and Duties of Care

The extension of managers' (and controlling shareholders') fiduciary duties in the way we have suggested gives such parties an incentive to establish and sustain effective risk management committees staffed by independent directors. However, we consider it is appropriate also to ensure the incentives of the directors are also appropriately aligned. The directors will not themselves be responsible for the operational decisions that trigger excessive levels of risk. Rather, their role will be in high-level oversight of the firm's operations; appointing managers and setting incentive arrangements; review and approval of strategy. Consequently the relevant category of liability would most likely be for what has come to be known as "oversight". Here liability is imposed not for having made inappropriate decisions regarding risk-taking, but rather for having delegated these decisions to others and failed to oversee their decision-making. In *Caremark*, Chancellor Allen articulated that directors have a continuing duty to ensure that "monitoring systems are in place."¹¹³

¹¹¹ *Zapata Corp. v. Maldonado*, 430 A.2d 779 (Del. 1981); *Aronson v. Lewis*, 473 A.2d 805 (Del. 1984).

¹¹² *Teachers' Retirement Sys. of La. v. Aidinoff*, 900 A.2d 654, 669-70 (Del. Ch. 2006) (citing William T. Allen & Reinier Kraakman, COMMENTARIES AND CASES ON THE LAW OF BUSINESS ORGANIZATION 313 (1st ed. 2003) ("How then is the Court of Chancery likely to review an interested transaction between a company and one or two of its directors who are not affiliated with a controlling shareholder? It will employ business judgment review, we believe, as long as the remaining disinterested directors who approve the transaction cannot be shown to be misinformed, dominated, or manipulated in some fashion."))

¹¹³ *In re Caremark Int'l Inc. Derivative Litig.*, 698 A.2d 959 (Del. Ch. 1996).

However, the duty articulated in *Caremark* has been taken to apply only in a very limited way. First, it is framed in purely subjective terms: that is, the board are under an obligation simply to make a “good faith attempt” to ensure that a monitoring system is in place,¹¹⁴ and will consequently only face liability for breach if they have “utterly failed” to implement oversight, or have “consciously failed” to monitor activity.¹¹⁵ Second, has been understood solely in terms of the monitoring of activity which might lead to a breach of applicable statutory or regulatory standards.¹¹⁶ Failure to oversee the company’s strategy to ensure that it did not make excessive losses, in contrast, amounts simply to a business decision over which the duty does not appear to extend.¹¹⁷ Third, in any event, an attempt by courts in Delaware to articulate a more onerous liability standard would be thwarted by DGCL § 102(b)(7), which permits companies to exculpate directors from liability for breach of their duty of care provided they did not act in bad faith.¹¹⁸

The way in which the monitoring obligation is framed as parasitic upon corporate regulatory obligations is in keeping with the standard account of how corporate externalities are controlled. If these obligations were set so as to internalize social costs, then the *Caremark* obligation would work to encourage boards to take steps so as to increase the probability of corporate compliance with these obligations.¹¹⁹ However, the *Caremark* duty is not intended to permit courts to engage in scrutiny of the merits of business decisions, and thereby seeks to preserve the traditional business judgment rule. This is implicit in the limitation of the obligation to attempts to facilitate compliance with regulatory obligations, and explicit in the characterization of the duty as purely subjective—which reduces the enquiry to whether the director thought that the steps taken were appropriate, as opposed to whether the court concludes that they ought to have done so—and the option to introduce an exculpatory provision for breaches of duty not involving bad faith. Together these provide directors with a guarantee that they will not face liability for conduct falling short of conscious dereliction of their duty.¹²⁰

¹¹⁴*Id.*

¹¹⁵ *Stone v. Ritter*, 911 A.2d 362, 370 (Del. Sup. 2006).

¹¹⁶ Although arguably Chancellor Allen originally envisaged a wider scope than this. See *Caremark*, *supra* note 113, at 969-970:

“In light of these developments, it would, in my opinion, be a mistake to conclude that our Supreme Court’s statement in *Graham* concerning “espionage” means that corporate boards may satisfy their obligation to be reasonably informed concerning the corporation, without *assuring themselves* that information and reporting systems exist in the organization that are *reasonably designed* to provide to senior management and to the board itself *timely, accurate information sufficient* to allow management and the board, each within its scope, to reach *informed judgments* concerning *both* the corporation’s compliance with law *and its business performance*.” [emphases added]

¹¹⁷ *In re Citigroup Inc. Shareholder Derivative Litig*, 964 A.2d 106 (Del. Ch. 2009).

¹¹⁸ *See id.*

¹¹⁹ Jennifer Arlen and Reinier Kraakman, *Controlling Corporate Misconduct: An Analysis of Corporate Liability Regimes*, 72 NYU L REV 687 (1997).

¹²⁰*Stone v. Ritter*, *supra* note 115.

This framing of the monitoring obligation rests on two assumptions we have challenged in this paper: first, that regulatory obligations will be set appropriately so as to internalize the social costs of the firm's systemically activities; and second, that the business judgment rule rests on a sound policy of encouraging risk-taking in the interests of diversified shareholders. Both should be subjected to a reassessment where systemic risks are concerned. Consequently, we argue that it is desirable for a duty to monitor to be applied in expanded circumstances and to a higher standard.¹²¹

The obligation should be to *oversee systems to assess potential downside consequences of the firm's business strategies and to factor these into its decision-making appropriately*. This would create an oversight obligation the scope of which would be independent of regulatory norms to which the firm might otherwise be subject. Divorcing the oversight obligation from regulatory norms has a powerful advantage in a world in which regulation is imperfect. It tells boards that compliance with regulatory norms is not necessarily enough to ensure freedom from potential liability. Such a duty reserves to the courts the power to assess *ex post* whether or not the risk-management systems were adequate, regardless of the level of regulatory compliance. To make such an exercise meaningful, it would need to be coupled with *negligence-based* liability for directors, as a purely subjective standard would exonerate directors who kept their heads in the sand. This would necessarily entail the repeal or federal regulatory preemption of Delaware's section 102(b)(7) and similar provisions for banks and any other firms subject to this enhanced oversight obligation.

How should a court go about making such an assessment? A starting point would be to call expert evidence as to what was industry practice at the relevant time, and to compare what this board did to that yardstick. However, reliance on industry practice alone will probably not suffice. It is plausible that all participants in the industry might suffer from similar conflicts between the interests of controllers and those of diversified shareholders, in which case industry practice will be deficient. The question to which the court should address itself in setting the standard of care is the level of oversight precaution which would be thought desirable *by diversified shareholders*.¹²²

G. Which Decisions? Which Firms?

The duties we propose would require "sanitization" from conflicts and oversight/monitoring of decisions which are capable of affecting the level of systemic risk posed by a firm. In practice, an independent, well-informed and actively engaged group of directors overseeing the decisions in question would satisfy both sets of obligations. Which types of decisions could affect a firm's systemic risk profile is an empirical question, and the subject of a fast-evolving literature. However, we envisage at least the following matters:

¹²¹ In short, we think that the opinion in *Citigroup* (*supra* note 117) was a missed opportunity.

¹²² See Richard A. Epstein, *The Path to the T.J. Hooper: The Theory and History of Custom in the Law of Tort*, 21 J. LEG. STUD. 1, 25-28 (1992).

- (i) Compensation policy, both as regards officers themselves,¹²³ and as regards more junior employees;¹²⁴
- (ii) Financing policy, in particular as regards leverage (greater leverage boosts returns to shareholders but increases default risk) and sources of capital (wholesale borrowing being more fragile than retail deposits);
- (iii) Strategic choices affecting firm risk, in particular M&A decisions and opening/closing lines of business; and
- (iv) The establishment and support of the firm's risk management function.¹²⁵

Compliance with the duties we propose would require engagement in *quantification* of exposure: that is, stress-testing for worst-case scenarios. These results would then need to be made subject to *execution* mechanisms that factor potential costs to the firm into operational incentive systems for decision-makers capable of affecting the firm's exposure.

Our proposal would be appropriate for financial firms whose activities are *capable* of imposing systemic losses. The set of such firms could be defined by reference to regulatory designation—for example, a decision by the US Financial Stability Oversight Council that a financial firm is 'systemically important', or the G-20's Financial Stability Board that a financial institution is 'globally systemically important'—a so-called 'G-SIFI'. Alternatively, the scope of the set of firms to which the duty applies could be left to judicial precedent. Among the directors' duties could be the determination whether the firm is "systemically important." Piggybacking on regulatory designation has the advantage of clarity, but suffers from greater propensity to be undermined by lobbying efforts or regulatory arbitrage, for example, holding balance sheet assets below fixed threshold amounts. Either approach would be workable, and would yield a significant improvement upon the *status quo*.

H. Remedies and Incentives

In order to induce appropriate deterrence, straightforward economic analysis of law suggests that expected damages payable should in principle equal the expected social cost of activities imposing externalities.¹²⁶ Under a strict liability formulation, the defendant then bears all of the social costs of their activities, and consequently has incentives to take care up to the level at which the marginal cost of additional precautionary expenditure equals the marginal social benefit in terms of

¹²³ See Pathan, *supra* note 9 (CEO compensation linked to risk-taking in financial firms); Fortin *et al*, *supra* note 9 (same); Fahlenbrach and Stulz, *supra* note 89 (same).

¹²⁴ Viral Acharya, Lubomir Litov and Simone Sepe, Non-Executive Incentives and Bank Risk-Taking, working paper, NYU Stern School of Business (2013) (pay-performance link for sub-executive level employees strongly correlated with overall firm risk-taking).

¹²⁵ See, e.g., Andrew Ellul & Vijay Yerramilli, *Stronger Risk Controls, Lower Risk: Evidence from U.S. Banking Holding Companies*, J. Finance, forthcoming 2013.

¹²⁶ STEVEN SHAVELL, THE ECONOMIC ANALYSIS OF ACCIDENT LAW, ____-____ (1987).

reduced expected losses. Under a negligence liability formulation, the court pronounces whether the defendant's level of precaution was 'reasonable', and damages are only payable if it was not. Provided the court sets the 'reasonable' level of care equal to the social optimum, then this will induce the same level of care by the defendant as will strict liability.

The application of this framework to liability for systemic losses faces two challenges. The first is that, as we have seen, the social losses from systemic externalities are very difficult to quantify.¹²⁷ Second, these losses would likely be so large as to render any individual—indeed any firm—bankrupt and therefore, at least in part, judgment-proof. To the extent that damages exceed the defendant's ability to pay, then they will yield no additional marginal deterrence. These two considerations imply that the best we might hope to achieve would be to set liability at some quantifiable figure that is a *subset* of the total social loss, the deterrent value of which will be derived solely from that portion which is equal to or less than the defendant's actual wealth.

Applying the standard framework, our concern would be that a measure meeting these pragmatic constraints would lead to under-deterrence. The actual expected damages payable \bar{d} will be far less than optimal expected damages representing the true social loss, which we will term \bar{d}^* ; that is, $\bar{d} < \bar{d}^*$. However, because we propose liability for individuals controlling the firm, rather than the firm itself, we should set this alongside two further ways in which liability for directors and officers would differ from the standard framework. Third, the standard framework assumes the defendant to be risk neutral. Individual directors and officers, however, are likely to be risk-averse, because the risk of liability is not one which it will be possible for them to diversify away. A risk-averse defendant—such as an individual director—would view the expected cost of damages as equal to $\bar{d}(1+r)$, where r represents the level of risk aversion. Imposing liability on risk-averse directors and officers—which the logic of the business judgment rule takes to be a harmful deterrent to entrepreneurial risk-taking—becomes a useful boost to deterrence of harmful risk-taking where the quantum of liability that can be imposed is insufficient for optimal deterrence. Under such circumstances, then the risk aversion of defendant morphs from being an independent problem to a component of the solution, because the *effective* deterrent power of damages can be raised to $\bar{d}(1+r)$.¹²⁸

The fourth point of difference from the standard framework stems from the fact that individual directors and officers will not themselves bear the costs of precautionary actions they take to mitigate the risk of liability. Rather, these costs will be borne by the firm—and consequently the diversified shareholders. If we assume an individual defendant bears some fraction $1/n$ of the costs of

¹²⁷ See *supra*, text to notes 55-59.

¹²⁸ See Christopher D. Stone, *the Place of Enterprise Liability in the Control of Corporate Conduct*, 90 YALE L.J. 1 (1980); Louis A. Kornhauser, *An Economic Analysis of the Choice Between Enterprise and Personal Liability for Accidents*, 70 CAL. L. REV. 1345 (1982); Reinier Kraakman, *Corporate Liability Strategies and the Costs of Legal Controls*, 93 YALE L.J. 857 (1984).

precaution p —whether because of their equity interest in the firm, or the necessary personal effort to implement such measures—then they will seek to minimize the sum of $(p + n\bar{d}(1+r))$, equivalent to the expected damages being boosted to $n\bar{d}(1+r)$.

Each of these latter two points of difference might, on their own, be thought of as raising concerns about *over*-deterrence, as compared with the standard model. However, in our context they are combined with the first two points of difference, which on their own imply *under*-deterrence. We are not so sanguine as to conclude it would be straightforward to set \bar{d} according to a “Goldilocks” formula of perfect deterrence. What we can say is that the two sets of divergences each point in different directions, such that the net divergence from optimal deterrence is actually much less than we might at first imagine. In other words, liability for *individual* directors and officers with damages set at some *subset* of the true social loss will still have useful deterrent properties.

How should this subset be quantified? We advocate a measure of liability that is based on defendants’ *earnings* from the firm as opposed to losses suffered by the diversified shareholders. This is most obviously appropriate for officers, whose compensation is equity-linked. Quantifying liability at the size of their compensation gives a deterrent incentive that is precisely correlated with the size of the conflict of interest they face. This is indeed the classical structure of liability for breach of the duty of loyalty. Loss is not necessary to trigger liability: all that is required is a demonstration of the existence of an unsanitized conflict of interest between the fiduciary and the principal. We have argued that the power to effect transactions which carry with them the risk of systemic loss constitute such a conflict as between controllers and diversified shareholders. As no loss need be shown, fiduciary liability may be particularly useful in circumstances where harm is a probabilistic, and the proscribed conduct serves merely to increase the chances of it occurring. The plaintiff need not wait to be injured, and so the defendant can expect to be liable far more often than under a loss-based rule. This increase in the probability of enforcement will greatly increase the deterrent effect of liability.¹²⁹ What this means is that the probability of enforcement against *unsanitized* conflicts will be very high. The defendant therefore has a powerful incentive to ensure the establishment of an appropriate sanitization scheme, in the form of an effective risk oversight function, as described above.

For directors, a gain-based measure of liability may seem less intuitive. We ordinarily think in terms of breach of the duty of care generating a liability for loss. However, given that we cannot quantify the loss, setting liability by reference to earnings has several desirable properties. First, it removes difficulties of classification and/or incentives to arbitrage over role description that might otherwise exist. Second, it removes the possibility for firms to contract around a loss-based liability rule by offering directors more upside pay. Under our proposed measure, the greater the pay, the greater the potential liability. Third, it will in most cases ensure that the quantum of liability is far less

¹²⁹ See Robert D. Cooter and Bradley J. Freedman, *The Fiduciary Relationship: Its Economic Character and Legal Consequences*, 66 N.Y.U. L. REV. 1045 (1991).

than the director's total wealth, beyond which there is no additional marginal deterrence.¹³⁰ Fourth, it avoids the need for difficult enquiries into causation.¹³¹ Moreover, there is precedent for such an approach. The duty of care is treated as a fiduciary duty by the Delaware Courts, permitting disgorgement as a remedy and obviating the need for enquiry as to causation.¹³²

I. Triggering Liability: 'Serious Loss'

A virtue of our proposal is that liability can be triggered without the firm going into bankruptcy proceedings, meaning deterrence can be achieved even if bailouts occur. The remedies we propose do not require any causal link to be drawn between controllers' actions and systemic harms suffered. Yet in so doing this raises a possibility of challenge to a very wide range of decisions. The costs of bringing and defending such litigation could conceivably outweigh the deterrence benefits. We consequently propose a pragmatic restriction on the circumstances under which the claim is triggered: that the firm suffered a 'serious loss' as a consequence of the controllers' breach of duty. An example of what we have in mind as a 'serious loss,' would be the \$6bn loss suffered by J.P. Morgan Chase as a result of allegedly poor risk-management in relation to the 'London Whale' trades.¹³³ This is premised on the idea that those sorts of failures contributing to serious losses to the firm are also likely, if the circumstances were slightly different, to be capable of generating systemic losses. Our proposal thereby seeks to ensure that deterrence is focused on types of conduct most likely to give rise to systemic losses.

¹³⁰ To avoid disincentive to service as a director of a systemically important financial institution, some may think it necessary to impose a limit on earnings "look-back," on the view that directors will not indefinitely retain earnings against a possible future accounting. For example, in the ALI's Principles of Corporate Governance, the reporters' initial suggestion was that directors face liability for breach of the duty care, but subject to a cap of three years' directors fees. This suggestion was swept away by the complete exculpation permitted by Del. Gen. Corp. Law § 102(b)(7) and similar statutes.

¹³¹ Demonstrating a loss was caused by an omission—such as failure to oversee risk management sufficiently carefully—requires the plaintiff to prove a counterfactual: had additional monitoring activity been undertaken, the loss would not have been suffered. The well-known early twentieth-century case of *Barnes v Andrews* 298 F. 614 (S.D.N.Y., 1924) illustrates the problem. This involved a suit brought by a receiver of a failed company against one of its former directors, alleging negligence in his oversight of corporate affairs. The defendant was found to have failed to make any real effort to become informed about the activities of the company, and was consequently in breach of duty. However, no specific loss was shown to have been caused by his lack of attention. Dismissing the plaintiff's claim, District Judge Learned Hand explained (*ibid* at 617):

"How could anyone guess how far a director's skill and judgment would have prevailed upon his fellows, and what would have been the ultimate fate of the business, if they had? How is it possible to set any measure of liability, or to tell what he would have contributed to the event?"

¹³² See, *Cede v Technicolor* 663 A.2d 1156 (Del. 1995).

¹³³ US Senate Permanent Subcommittee on Investigations, *Staff Report on JP Morgan Chase Whale Trades: A Case History of Derivatives Risks and Abuses* (2013). This instance is cited as an example of the magnitude of the loss and the nature of the loss that would count as "serious." The question of the officers' and directors' negligence in the risk-taking and risk oversight that produced the loss would presumably be contested in litigation.

V. Extensions and Responses to Objections

A. *Why Not Shareholder Democracy?*

Some might say the clash of shareholder interests in relation to systemic harms points toward a straightforward governance-based solution: Since diversified shareholders will typically constitute the majoritarian owners of the firms in question, should the process of shareholder democracy not produce checks on excessive risk-taking by managers? In this regard, the “reconcentration” of diffuse share ownership into the hands of institutional investors should increase the potency of shareholder voice,¹³⁴ and the recent adoption of mandatory “say on pay” by the Dodd-Frank Act should offer a ready-made channel for the exertion of influence.¹³⁵ Thinking of this sort also underpinned the UK’s Walker Review, which recommended facilitating increased shareholder oversight for financial institutions.¹³⁶

Although superficially promising, a strategy of governance reform through holder self-help is unlikely to succeed in checking excessive risk-taking, because the structure of governance activism almost invariably produces pressure for improved stock price performance at the governance target.¹³⁷ First, much firm-specific governance energy comes from blockholders with a large enough stake to justify independent activism that may mobilize a latent majority. But blockholders, who reduce diversification in the assembly of their block, generally focus attention on maximizing the share price of the particular firm, prodding management in that direction. This is how the blockholder earns returns from its activism and achieves compensation for bearing undiversified risk. Ordinarily, in the case of non-financial firms, blockholder interests are aligned with the diversified shareholders. In the case of systemic financial firms, however, the antagonism of interests means that what is ordinarily virtuous becomes a vice for diversified shareholders.

Second, diversified shareholders typically hold their shares through institutional investor intermediaries, whose governance activism will be constrained by what one of us has referred to as the “agency costs of agency capitalism.”¹³⁸ This refers to self-interested behavior by institutional actors who are typically evaluated in relevant performance terms, not absolute performance. Thus even though such intermediaries may hold diversified portfolios, in service to the diversification

¹³⁴ For evidence on the extent of this reconcentration, see Ronald J. Gilson & Jeffrey N. Gordon, *The Agency Costs of Agency Capitalism*, 113 *Colum. L. Rev.* 863 (2103) .

¹³⁵ Dodd-Frank Act, §951, 124 Stat. 1375, 1899 (2010) codified as Section 14A of the Securities Exchange Act of 1934. .

¹³⁶ See *supra*, note 10.

¹³⁷ Indeed, this seems to be the early pattern in shareholder voting on “say on pay.” See Randall S. Thomas, Alan R. Palmiter & James F. Cotter, *Dodd-Frank’s Say on Pay: Will It Lead to a Greater Role for Shareholders in Corporate Governance?*, 97 *Corn. L. Rev.* 1213 (2012) (first year results suggest that most management pay proposals will pass easily except at poorly performing companies) .

¹³⁸ See Gilson & Gordon, *supra* note 134.

desires of their beneficiaries, their incentives do not focus their attention on systemic risk issues, for these would similarly affect their investment management competitors. Rather, like a blockholder, for the portfolio companies in which they are “overweight,” they are likely to promote management strategies that advance share price maximization, because that is how they would show superior performance against their competitors in most circumstances.

B. Enforcement

Collective action costs as between shareholders also make it difficult to coordinate the bringing of litigation. Potential downside costs to unsuccessful litigation—in particular any liability for legal fees—tend to encourage free-riding behavior, which in turn makes it less likely that suits will be filed. All of this reduces the probability of enforcement, so much so that in many legal systems, shareholder litigation is practically non-existent.¹³⁹ The US system of shareholder class action and derivative litigation manages to overcome these limitations, and then some. By permitting the aggregation of a class on an ‘opt out’ basis and through derivative litigation, coordination costs are greatly reduced. And offering contingency fees to class action and derivative suit lawyers means that individual plaintiffs have little to worry about as regards costs. The concern with US shareholder class action and derivative suits is with too much, rather than too little, litigation.¹⁴⁰ However, the requirement under our proposal that the firm have suffered a serious loss in order to trigger a suit, coupled with the relatively modest quantum of damages, would serve as restrictions on the likelihood of strike suits.

Enforcement by private parties is another way in which our liability proposal would complement and enhance regulatory measures. As a general matter, the incentives of private plaintiffs to bring lawsuits are stronger than those of public enforcers, because the former get to keep the rewards from the litigation.¹⁴¹ Moreover, as with the strictness of substantive regulation, the intensity of public enforcement may be expected to vary with the success or failure of the financial system, depending on the degree of political pressure exerted on agencies.¹⁴²

C. Insurance

¹³⁹ For example, one of us reports in a recent empirical study that the level of shareholder litigation against directors of public companies in the UK is indistinguishable from zero: John Armour, Bernard S. Black, Brian R. Cheffins & Richard C. Nolan, *Private Enforcement of Corporate Law: An Empirical Comparison of the UK and US*, 6 J. EMP. LEG. STUD. 701 (2009).

¹⁴⁰ In another empirical study, one of us reports that the rate of class action litigation in relation to large M&A transactions in the US is approaching 100%: John Armour, Bernard S. Black & Brian R. Cheffins, *Is Delaware Losing its Cases?*, 9 J. EMP. LEG. STUD. 605 (2012).

¹⁴¹ Jonathan R. Hay and Andrei Shleifer, *Private Enforcement of Public Laws: A Theory of Legal Reform*, 88 AM. ECON. REV. 398 (1998).

¹⁴² Erik F. Gerding, *The Next Epidemic: Bubbles and the Growth and Decay of Securities Regulation*, 38 CONN. L. REV. 393, 433-37 (2006).

Given the structure of our proposed liability regime, it would likely also be necessary to restrict the extent to which firms may insure directors and officers against such liability.¹⁴³ Insurance reallocates liability risk to a party with lower risk-bearing costs, which is problematic where what is desired is to use personal liability specifically to capture the increased marginal deterrence associated with risk-averse individuals.¹⁴⁴ Outright prohibition of insurance would, however, be undesirable, as it would remove all incentives for plaintiff attorneys to bring lawsuits. Moreover, we would not propose any change to the practice of companies to insuring or indemnify directors against the *costs* of litigation (as opposed to the amount of any damages)—in order to permit them to defend against nuisance suits.

D. Historical Antecedents and Contemporary Precedents

Interestingly, the form of liability for which we contend would not constitute a wrenching change from prior practice; indeed, it would restore the traditional role of the common law in helping to control systemic risk. Until the late 20th century directors of US banks faced common law liability to creditors (particularly depositors) in insolvency under the so-called “trust fund” doctrine. In a well-known 1940 decision in *Litwin v. Allen*, the New York Supreme Court held that

“[D]irectors are liable for negligence in the performance of their duties. Not being insurers, directors are not liable for errors of judgment or for mistakes while acting with reasonable skill and prudence. ... *Undoubtedly, a director of a bank is held to stricter accountability than the director of an ordinary business corporation. A director of a bank is entrusted with the funds of depositors, and the stockholders look to him for protection from the imposition of personal liability.*”¹⁴⁵ (emphasis added)

Similarly 1880 New York Court of Appeals case *Hun v. Cary*,¹⁴⁶ which unanimously held bank directors liable on a negligence standard, focused on the particular vulnerability of bank depositors:

“[T]he degree of care required depends upon the subjects to which it is to be supplied What would be slight neglect in the care exercised in the affairs of a turnpike corporation, or even of a manufacturing corporation, might be gross neglect in care exercised in the

¹⁴³ The FDIC current prohibits banks from providing D&O insurance that covers “Civil Money Penalties” that can be assessed for violation of banking laws and regulations. See 12 CFR §359. Directors can apparently evade the force of this regulation by paying an allocated portion of the bank’s D&O coverage that includes such liability or by obtaining a separate policy. See Jeff Gerrish, *What’s Your Real Liability as a Director or Officer?*, 19 ABA Banking J. on-line blog (Dec. 9, 2009), available at <http://www.ababj.com/blog/381.html>. As condition for taking a controllers’ position in the relevant set of financial firms, the parties should agree not to obtain such insurance.

¹⁴⁴ Kraakman, *supra* note, --, at --.

¹⁴⁵ *Litwin v. Allen* 25 NYS 2d 667, 678 (NY Sup.1940).

¹⁴⁶ *Hun v. Cary*, 82 N.Y. 65 (NY 1880) .

management of a savings bank entrusted with the savings of a multitude of poor people, depending for its life upon credit and liable to be wrecked by a breath of suspicion.”¹⁴⁷

It was also clear that the liability standard was ordinary negligence, not gross negligence:

“It seems to me that it would be a monstrous proposition to hold that trustees, intrusted with the management of the property, business of other people, who divest themselves of the management and confide in them, are bound to give only slight care to the duties of their trust, and are liable only in case of gross inattention and negligence ...”¹⁴⁸

The key point is that the director liability standard functioned as an important element in the common law’s effort to use liability as a tool to limit systemic risk. The quoted language in *Hun v. Cary* vividly expresses the vulnerability of a bank in the pre-FDIC era. The negligence of directors could precipitate a run that would destroy the bank and, as we have previously observed, possibly undermine confidence in other banks. Similarly, the higher liability standard for bank directors was a complement to the liability exposure of US bank shareholders, who until well into the twentieth century could expect to face double liability on the firm’s insolvency.¹⁴⁹ That too was a mechanism to enhance the stability of the particular bank and the banking system. If shareholders faced additional personal liability, it should follow that the directors in turn owed them a more onerous duty of care.

The stability-enhancing mechanism of bank director liability at common law faded in importance after adoption of the Federal Deposit Insurance of 1933. Depositors could rely on the federal deposit insurance guaranty, not the probity of directors nor the deep pockets of shareholders. The state retreat on negligence liability followed, sometimes through explicitly targeted protection for bank officers and directors;¹⁵⁰ in other cases as part of an omnibus retreat on director liability for breaches of the duty of care.¹⁵¹ Although the FDIC as receiver of a failed bank can pursue common

¹⁴⁷ 82 N.Y. at 71 (citation omitted).). Former Delaware Supreme Court Justice Henry Ridgely Horsey traces the notion of corporate directors’ duty of care to English trust and agency law from the 18th century, but argues that, while this fiduciary duty was accepted in the United States by the 19th century, the duty was actually confined to directors of banks and other financial institutions. Henry Ridgely Horsey, *The Duty of Care Component of the Delaware Business Judgment Rule*, DEL. J. CORP. L. 971, 973-74 (1994).

¹⁴⁸ Id. At 72.

¹⁴⁹ Jonathan R. Macey and Geoffrey P. Miller, *Double Liability of Bank Shareholders: History and Implications*, 27 Wake Forest L Rev 31 (1992). Accord, Benjamin C. Esty, *The Impact of Contingent Liability on Commercial Bank Risk Taking*, 47 J. FIN. ECON. 189 (1998). In the UK, liability for banks came in the course of the 19th century, facilitated by the Companies Act of 1879. See Andrew Haldane, Control Rights (And Wrong), Oct. 2011, available at <http://www.bankofengland.co.uk/publications/speeches/2011/speech525.pdf>. The legislation came immediately following the 1878 failure of the City of Glasgow. Although depositors lost nothing, 80 percent of the bank’s shareholders were bankrupted. The consequence of the limited liability regime had been that “the share lists of most of our banks exhibit a very large – almost an incredible – number of spinsters and widows.” (id, quoting The Economist Oct. 25, 1879 at 1224).

¹⁵⁰ E.g., for Florida, with a large number of bank failures, see *FDIC v. Stahl*, 89 F.3d 1510, 1516-18 (11th Cir. 1996) followed by the enactment of Fla. Stat. § 607.0830.

¹⁵¹ See, e.g., DGCL § 102(b)(7), adopted in 1986; Model Bus. Corp Act 2.02 (b)(4), adopted in 1990.

law claims, in the aftermath of widespread and costly bank and thrift failures in the savings and loan crisis over the 1985-1992 period, the FDIC was empowered with an explicit federal remedy for officer and director gross negligence.¹⁵²

Delaware's rollback of director liability provides an interesting case study. In response to a 1985 case that imposed liability on directors of a non-financial corporation,¹⁵³ Delaware quickly amended its corporation law to permit companies to adopt charter provisions that would exculpate directors from good faith breaches of their duty of care.¹⁵⁴ The amendment's broad framing offered an opportunity for many banks to remove such liability risk from their directors.¹⁵⁵ Our examination of the legislative record has not unearthed any evidence that the position of bank directors was ever considered in the process leading up to this change. The position of directors of Delaware banks was, it appears, changed overnight by inadvertence rather than intention.

More recently, the resolution procedures of Dodd-Frank, as currently implemented by the FDIC, follow the strategy that we endorse in this paper. These permit the imposition of liability on former senior executives or directors of failed banks for negligence, with the quantum of recovery measured by reference to their compensation over the preceding two years.¹⁵⁶ The implementing regulations have made clear that the standard is simply "negligence", as opposed to "gross negligence",¹⁵⁷ and the scope of "compensation" is very broadly defined.¹⁵⁸ Beyond this recoupment amount, however, Dodd-Frank extends the pattern of providing business judgment protection against monetary liability for officers and directors of a failed bank to the case of a failed systemically important financial institution.¹⁵⁹

¹⁵² See Financial Institutions Reform, Recovery, and Enforcement Act ("FIRREA"), Pub. L. No. 101-73, Title II, § 212(k), 103 Stat. 243 (1989) (codified at 12 U.S.C. § 1821(k) (1994)). See generally Steven A. Ramirez, *The Chaos of 12 U.S.C. Section 1821(k): Congressional Subsidizing of Negligent Bank Directors and Officers*, 65 *FORDHAM L. REV.* 625 (1996).

¹⁵³ *Smith v. Van Gorkom*, 488 A.2d 858 (Del. 1985).

¹⁵⁴ DGCL § 102(b)(7), adopted in 1986.

¹⁵⁵ See, e.g., *In re Citigroup Inc. Shareholder Derivative Litigation*, 964 A.2d 106, 124-125 (Del. Ch. 2009).

¹⁵⁶ See Dodd-Frank § 210(s) (permitting the FDIC to obtain recoupment of any compensation received during a two-year lookback period "from any current or former senior executive or director substantially responsible for the [firm's] failed condition").

¹⁵⁷ 12 CFR § 380.7. This is however subject to a proximate cause condition, which we think will be difficult to establish: the breach(es) of duty "individually or collectively, caused a loss to the covered financial company that materially contributed to the failure of the covered financial company under the facts and circumstances." *Id.*, § 380.7(a)(2). Here we think the standard requires too strong a causal connection.

¹⁵⁸ 12 CFR § 380.1. (defining "compensation" as including "any direct or indirect financial remuneration received from the covered financial company, including, but not limited to, salary; bonuses; incentives; benefits; severance pay; deferred compensation; golden parachute benefits; benefits derived from an employment contract, or other compensation or benefit arrangement; perquisites; stock option plans; post-employment benefits; profits realized from a sale of securities in the covered financial company; or any cash or non-cash payments or benefits granted to or for the benefit of the senior executive or director.")

¹⁵⁹ See Dodd-Frank § 209 (f) (imposing liability for gross negligence or intentional tortious conduct, "as such terms are defined and determined under applicable State law").

E. Federalism and Regulatory Competition

Our proposal relies on judges to adjudicate claims against directors and officers of systemic firms. The most expert judges in corporate law matters in the United States are those comprising the bench of Delaware's Court of Chancery.¹⁶⁰ Other courts also have expertise in commercial matters—the courts of New York, for example, are another well-known choice.¹⁶¹ On the assumption that judges do best applying the laws of their own jurisdiction, our proposal also entails the relevant state(s) altering their substantive laws so as to introduce liability for directors and officers of systemically important firms.

The incentives created by regulatory competition in the market for corporate laws, however, currently push in the opposite direction. Firms in the United States are generally free to select their jurisdiction of incorporation, the law of which, under the 'internal affairs' doctrine, will govern disputes regarding liability of directors and officers.¹⁶² In order to attract firms, states therefore have incentives to modify their corporate laws in accordance with the interests of those making selection choices. A large and well-known body of literature explores the question whether these choices, and the shaping of corporate laws they induce, are made primarily in the interests of managers or of shareholders.¹⁶³ On either view, systemically important firms might be expected to incorporate *away* from jurisdictions adopting a liability rule of the sort we describe. Managers obviously would prefer a regime that did not subject them to liability. And the logic of the problem we describe is that the share price of such a firm would go down were it to internalize systemic harms.¹⁶⁴ Consequently shareholders focusing on the stock price might also be expected to support a move away from jurisdictions seeking to impose such liability.¹⁶⁵

¹⁶⁰ See Marcel Kahan, *The Demand for Corporate Law: Statutory Flexibility, Judicial Quality, or Takeover Protection?*, 22 J. L. ECON. & ORG. 340 (2006) (reporting that judicial quality is primary driver of firms' choices to incorporate in Delaware); Matthew D. Cain & Steven M. Davidoff, *Delaware's Competitive Reach*, 9 J. EMP. LEG. STUD. 128 (2012) (Delaware is forum of choice for M&A agreements).

¹⁶¹ See Theodore Eisenberg & Geoffrey Miller, *Flight to New York: an Empirical Analysis of Choice of Law and Forum Clauses in Large Commercial Contracts*, 30 CARDOZO L. REV. 1475 (2009).

¹⁶² See *CTS Corp. v. Dynamics Corp. of Am.*, 481 U.S. 69, 89–90 (1987).

¹⁶³ For influential statements of the position that corporate laws reflect managerial interests, see eg William L. Cary, *Federalism and Corporate Law: Reflections on Delaware*, 88 YALE LJ 663 (1974) and Lucian A. Bebchuk, *Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law*, 105 HARV L REV 1435 (1992). Leading statements of the countervailing view that corporate laws reflect instead the interests of shareholders include: Ralph K. Winter, *State Law, Shareholder Protection, and the Theory of the Corporation*, 6 J. Leg. Stud. 251 (1977); Easterbrook & Fischel, *supra* note 68, at 212-27; and Roberta Romano, *THE GENIUS OF AMERICAN CORPORATE LAW* (1993).

¹⁶⁴ See *supra*, text to notes 87-89.

¹⁶⁵ Whilst doing so is not in the interests of diversified shareholders where systemic risks are concerned, they likely face such severe coordination costs as to make collective action impossible: see *supra*, text to notes 134-138.

To implement our proposal, therefore, it necessary to introduce a complementary regulatory prescription regarding the choice of corporate law and adjudication forum for systemically important firms. The relevant regulator—the Federal Reserve in the case of systemically important financial institutions—should make it a license condition for such firms that their incorporation and adjudication choices be consistent with ‘best practice’ as regards liability for directors and officers. By making the regulator the party effectively overseeing the incorporation choice, this measure would give states desirable incentives to introduce liability regimes of the sort we describe.

VI. Conclusion

The normal framework within which we think about corporate law and governance urges that those running a corporation to maximize the value of shareholders’ claims, as measured by the stock price. The shareholder value norm encourages managers instead to make decisions as diversified shareholders would, were these shareholders not beset by collective action problems. But if the firm’s owners don’t bear the full social costs of their activities, then the shareholder value norm will encourage managers to act in a way that increases social costs. The standard response to weaknesses in internalization mechanisms is to argue for an improvement of these mechanisms, not a weakening of the shareholder value norm itself.

We have argued that the recent financial crisis calls this accommodation into question as regards financial firms whose activities are systemically important. We have made three novel claims. First, the extent to which traditional private law mechanisms—in particular, the law of tort—fail to internalize systemic harms has been under-appreciated. In particular, the economic nature of the losses occasioned by systemic harms, and the causal link between financial firm failure and the infliction of these harms, mean that the usual technique of imposing tort liability on the firm cannot gain traction on the problem. This causal link is unique to financial firms, which renders the internalization of their systemic risks particularly weak under current arrangements. In this regard, financial firms are different.

Second, we have argued that the shareholder value norm creates incentives for firms systematically to undermine the efficacy of regulatory internalization.

Our third claim is that, where the harms are *systemic*, even the firm’s diversified shareholders, its majoritarian owners, would rather that the managers did not impose externalities. Risks of systemic harms—that is, affecting the economy at large—increase the undiversifiable portion of investors’ risk. In relation to projects with such potential consequences, diversified investors should not want managers to single-mindedly maximize share prices. As a result, a system in which ‘shareholder value’ is interpreted as share price maximization is paradoxically *not* aligning managers’ interests with those of dispersed shareholders, at least as regards systemic risks.

It is therefore appropriate to relax the shareholder value norm in the case of systemically important financial firms. In addition to regulatory changes to compensation practices in such firms, we make the case for the complementary imposition of liability for directors and officers. Such liability, appropriately structured, makes agents behave in a more risk-averse fashion, which the conventional wisdom underpinning the business judgment rule suggests is contrary to the interests of diversified shareholders. Our analysis reveals that when a firm's actions affect *systemic* risk, the conventional wisdom is reversed: diversified shareholders want managers to take *less* risk. This undercuts the case for business judgment protection. We have argued that director and officer liability has a potentially useful role to play in circumscribing the limits of shareholder value. Such liability would be owed to the firm, and could be triggered by a shareholder action following the occurrence of significant losses.

Appendix

The text provides a numerical example to convey intuitions about the consequences for market risk, or “systematic risk,” associated with risk taking by a SIFI. We can formalize these intuitions as follows. Assume that the economy consists n firms, comprising a bank and $n-1$ other firms. There are two types of investor in the economy, a bank controller M and diversified shareholders DD . M holds a portfolio consisting solely of a block of equity in the bank comprising some proportion α (where $0 < \alpha < 1$) of the bank’s shares. The most straightforward interpretation of M is as a manager paid with significant amounts of equity compensation. For example, Richard Fuld, the CEO of Lehman Brothers, held 2.4% of Lehman’s common stock in early 2008.¹⁶⁶ DD hold portfolios comprising equal weight investments in each of the n firms including the bank.

1. Project choice by the bank controller

Let P_a and P_b be two projects available to the bank. At time t_0 , M selects which project the bank will pursue. The projects pay out at time t_1 . At time t_0 the projects have expected returns \bar{v}_a and \bar{v}_b with variances σ_a^2 and σ_b^2 respectively, where $\bar{v}_a < \bar{v}_b$ and $\sigma_a^2 < \sigma_b^2$.

In selecting between the two projects, M will take into account not only their expected values but also their riskiness, because his portfolio is invested solely in the bank. Let r_a and r_b be the risk premia that M demands for investment in P_a and P_b respectively, where $r_b > r_a$. The risk-adjusted returns to M from the two projects are therefore $\frac{\alpha\bar{v}_a}{1+r_a}$ and $\frac{\alpha\bar{v}_b}{1+r_b}$ respectively. M will consequently select P_b rather than P_a where the following condition is satisfied:

$$\frac{\alpha\bar{v}_b}{1+r_b} - \frac{\alpha\bar{v}_a}{1+r_a} > 0 \quad (1)$$

In other words, a sufficient increase in expected returns will induce M to select P_b rather than P_a notwithstanding that M is risk averse and P_b is more risky than P_a . Rearranging (1), we may state the necessary increase in expected value to satisfy M ’s participation constraint as follows:

$$\bar{v}_b - \bar{v}_a > r_b \bar{v}_a - r_a \bar{v}_b \quad (2)$$

2. Externalisation of costs

As $\sigma_a^2 < \sigma_b^2$, the tail of bad state outcomes is larger in the distribution of v_b than v_a . Consistently with this, assume that undertaking P_b rather than P_a increases the probability that the bank will fail by an increment θ such that $0 < \theta < 1$. If the bank fails, then the other $n - 1$ firms are deprived for some time of payment services. This causes them to incur costs, which we shall denote as c_i for the i th firm. The total expected costs of bank failure experienced by other firms are $\bar{C} = \sum_{i=0}^{n-1} \bar{c}_i$. Consequently, for M to select P_b rather than P_a has expected social costs of $\theta\bar{C} - (\bar{v}_b - \bar{v}_a)$.

¹⁶⁶ [Lehman Brothers Holdings Inc., Schedule 14A Proxy Statement, March 5, 2008, 18](#) (2008).

The risk of this externality is systematic, in that DD cannot avoid it by diversification. So we should see it as adding to the market risk of their portfolios. If we assume that DD each have identical utility functions to M , then on a risk-adjusted basis P_b is preferable to P_a if the following inequality is satisfied:

$$\frac{\bar{v}_b - \theta \bar{C}}{1 + r_b} - \frac{\bar{v}_a}{1 + r_a} > 0 \quad (3)$$

Rearranging, P_b is preferable to P_a from society's point of view only if:

$$\bar{v}_b - \bar{v}_a > r_b \bar{v}_a - r_a \bar{v}_b + \theta \bar{C} (1 + r_a) \quad (4)$$

By comparing (2) and (4) it can be seen that M has incentives to select P_b rather than P_a even where it is harmful to social welfare to do so.

It follows from the foregoing that diversified shareholders would prefer that the bank pursue the more conservative projects, whereas undiversified controllers would prefer the bank pursue more risky projects. The most startling thing about this result is that it is an outright reversal of the ordinary framework for corporate governance. Diversified shareholders, instead of wanting managers to take *more* risk than the latter are wont to do, actually want them to take *less* risk.

We have assumed for this discussion that the diversified shareholders are unable to impose their preferences on the manager. This is grounded in the collective action costs faced by diversified shareholders. Rather than engage with individual firms, such shareholders typically rely on the stock price as a signal of the quality of the managers' performance—hence the shareholder value norm. Our next step is therefore to explore how the choice of project by the bank may be expected to impact its stock price.

3. How stock prices respond to externalities

The bank's pursuit of P_b rather than P_a will, as we have seen, increase the firm's cashflows and the volatility of those cashflows. We know from (1) and (2) that P_b will only be pursued if the increased cashflows are sufficient to compensate for the increased risk-bearing costs to shareholders who only hold this stock. Thus there are net positive returns to stockholders holding only bank stock.

The bank's pursuit of P_b rather than P_a will also impose an expected cost $\theta \bar{C}$ on other firms, which will ultimately be borne by diversified shareholders. This cost is borne by the shareholders of these firms *whether or not they are also holders of bank stock*. Diversified shareholders are therefore worse off if the bank pursues P_b rather than P_a , because of the adverse impact on their portfolios as a whole. However, if P_b is pursued, they are nevertheless better off holding the bank's stock than not holding it. Thus the bank's stock price will *rise* if P_b is pursued.

The implication of this subsection is that encouraging managers of firms whose activities may externalize costs to take more risks achieves precisely the opposite result to that which is desirable ordinarily.