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Corporate Governance and Prudential Regulation

Remarks by

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It is a pleasure to be back among law professors here at the Association of American Law Schools (AALS) Midyear Meeting. Let me begin by applauding the organizers for encouraging collaboration between corporate and financial law scholars. Indeed, it is striking how much of the insightful legal scholarship that followed the financial crisis has come from corporate law scholars. On reflection, this outcome is not really surprising. After all, much corporate law scholarship revolves around incentive structures, agency costs, and asymmetric information flows--all matters of great relevance to financial regulation. Furthermore, legislatures and courts have a long history of debating, and sometimes adopting, special corporate law and governance rules for financial institutions.

In my remarks this afternoon I will try to further the collaboration between corporate and financial law scholarship by suggesting how the nature of finance and financial regulation affects corporate governance and why, in turn, special corporate governance measures are needed as part of an effective prudential regulatory system. In making the latter argument, I will review some of the measures, both longstanding and more recent, that illustrate the point and then suggest some additional steps that might complement existing prudential regulations. Finally, I will offer some more tentative thoughts on the possible implication of this analysis for corporate law fiduciary duties. A theme running through these remarks will be the centrality of risk--its assessment, assumption, and allocation--in understanding the relationship between corporate governance and financial regulation.

Financial Firms and Corporate Governance

There are at least three significant ways in which the nature of financial activities and regulation affect the operation of key mechanisms of corporate governance.¹

¹ For a basic description of corporate governance mechanisms, see Mark J. Roe (2004), "The Institutions of Corporate Governance," in Claude Menard and Mary M. Shirley, eds., *Handbook for New Institutional Economics*

First, it has long been recognized that the unique features of deposit-taking financial institutions raise the question whether generally applicable corporate law and governance principles are adequate. Because banks are financial intermediaries that use deposits to provide much, if not most, of the funding for their lending, an insolvent bank may well be unable to satisfy all its deposit liabilities. The fear of this possibility lies at the heart of banking runs and panics. In the days before federal deposit insurance, the impracticality of contractual solutions to reduce the vulnerability of depositors led to a variant of normally applicable limited liability rules. Many states enacted so-called double liability rules, whereby shareholders could be liable for the losses of a failed bank in an amount equal, and in addition, to their investment in the bank. Presumably, these rules were intended to change the calculus of shareholders as to the risks they wished their banks to assume and, perhaps, the degree to which they monitored management.

Following the creation of federal deposit insurance, a series of constraints on normal corporate prerogatives has been applied to insured institutions, justified in large part by the need to counteract the resulting moral hazard and to protect the federal deposit insurance fund (DIF). Bank charters have always differed from general corporate charters insofar as they grant special privileges and forbid certain activities by the chartered institutions. In addition, special prudential requirements have always applied to chartered banks. Perhaps the most important of

⁽The Netherlands: Springer). Useful reviews of corporate governance in financial institutions, reflecting lessons learned from the financial crisis, include Hamid Mehran and Lindsay Mollineaux (2012), "Corporate Governance of Financial Institutions," Federal Reserve Bank of New York Staff Report No. 539 (New York: Federal Reserve Bank of New York, February), available at www.newyorkfed.org/research/staff reports/sr539.pdf; Hamid Mehran, Alan Morrison, and Joel Shapiro (2011), "Corporate Governance and Banks: What Have We Learned from the Financial Crisis?" Federal Reserve Bank of New York Staff Report No. 502 (New York: Federal Reserve Bank of New York, June), available at www.newyorkfed.org/research/staff reports/sr502.pdf; Moonrad Choudhry (2010), "Effective Bank Corporate Governance: Observations from the Market Crash and Recommendations for Policy," *Journal of Applied Finance & Banking*, vol. 1 (1), pp. 179-211.

these today is the imposition of minimum capital requirements on all insured depository institutions and bank holding companies.

Second, there is a variety of ways in which the attributes of financial markets and financial regulation affect the capital market discipline assumed in much corporate governance theory and corporate law. The prior point about the moral hazard associated with insured deposits implies that—at least in traditional, deposit—reliant banks—the kind of market discipline associated with the price of funding and creditor monitoring will be attenuated. More generally, to the degree uninsured depositors or other bank creditors expect that they will be protected by the government in the event the bank encounters serious difficulties, those same features of market discipline will again be weakened. This, of course, is the problem of moral hazard associated with too-big-to-fail perceptions, whereby investors or counterparties are willing to extend credit at prices that do not fully reflect the risk associated with the bank.²

The market discipline traditionally associated with the market for corporate control is also affected by banking *regulation and supervision*. Mergers and acquisitions involving banking organizations are subject to review, and possible disapproval, on a broad range of grounds beyond the antitrust considerations relevant in all industries. These include an assessment of the adequacy of the financial resources of the firms, the "competence, experience, and integrity" of the officers and directors, and the impact of the acquisition on systemic risk.³ Moreover, of course, any firm that acquires a commercial bank must be a bank holding company, thereby subject to a range of activity restrictions and other regulatory requirements. There are

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² For an argument that shareholders who might otherwise press for breakups of financial conglomerates are disincentivized from doing so for too-big-to-fail institutions, see Mark J. Roe (2014), "Structural Corporate Degradation Due to Too-Big-to-Fail Finance," *University of Pennsylvania Law Review*, vol. 162, pp. 1419-64 (forthcoming).

³ Bank Holding Company Act of 1956 §3, 12 U.S.C. §1842(c). The Bank Merger Act requires consideration of a roughly comparable set of factors. Acquisitions are also subject to special scrutiny where an acquiring firm has less-than-satisfactory supervisory ratings.

very good prudential reasons for these constraints upon acquisitions of, and by, banking organizations. But, by screening out transactions that would result in unacceptable increases in risk, either to an institution or to the financial system as a whole, these provisions may in some cases unintentionally limit the salutary disciplining effect on boards and management of the market for corporate control.

The third way in which the nature of financial activities and regulation affect the operation of key mechanisms of corporate governance is that the risks associated with financial intermediaries--especially those that are significantly leveraged and that engage in substantial maturity transformation--pose a particular challenge for corporate governance. All firms bear the risk that problems may unexpectedly arise because of, say, product flaws that were unknown to boards of directors and perhaps even senior management. But in the case of financial intermediaries, these problems can be incredibly fast-moving, including runs on funding that can quickly place the very survival of the firm in doubt. These risks have increased during the past 25 years, as many institutions have combined traditional lending activities with capital markets businesses that rely on other funding models. Accordingly, judgments about risk appetite and control systems to manage risk must be effectively executed by senior management and overseen by the board. This imperative, in turn, means that the information and monitoring processes and systems established for, or available to, boards of financial institutions may need to be more extensive than those in large, nonfinancial firms.

Financial Regulation and Corporate Governance

In the wake of the financial crisis, the public interest in regulation of banks and other financial firms is, I think it fair to say, both self-evident and substantial. A full discussion of the

rationales for various forms of regulation is beyond the scope of my remarks today.⁴ But let me briefly note that prudential regulation has two distinct motivations--microprudential and macroprudential.

Microprudential regulation is concerned largely with the safety and soundness of a financial institution considered individually. It seeks to protect the DIF by combatting what would otherwise be moral hazard and subsidized funding through capital requirements, activities restrictions, and other measures. Because microprudential regulations were designed primarily to minimize losses to the DIF, they have traditionally focused on insured depository institutions (IDIs); the regulation of owners and affiliates of IDIs is essentially about ensuring that the activities and risks of those other entities do not threaten the IDIs themselves. Up until the last several years, microprudential regulation would have come close to covering the entire field of prudential regulation.

The financial crisis highlighted the need to supplement traditional microprudential regulation with a macroprudential approach oriented toward the well-being of the financial system as a whole. Here there are two related objectives, both of which seek to avoid costs that failure or severe stress would impose on the economy beyond those suffered by shareholders of a financial firm. One is protecting against systemic risk--for example, the risk that certain activities or the failure of a firm would result in very large negative externalities, either through a classic domino effect or through contagion effects producing a financial crisis. Losses in a tail event are likely to be correlated for large firms deeply engaged in trading and relying on short-

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financial institutions.

⁴ For more complete discussions of the reasons for prudential regulation, see Daniel K. Tarullo (2014), "Rethinking the Aims of Prudential Regulation," speech delivered at Bank Structure Conference, Federal Reserve Bank of Chicago, May 8, available at www.federalreserve.gov/newsevents/speech/tarullo20140508a.htm; Daniel K. Tarullo (2014), "A Macroprudential Perspective on Regulating Large Financial Institutions," in Banque de France, *Financial Stability Review*, no. 18, available at www.banque-france.fr/fileadmin/user_upload/banque_de_france/publications/FSR18_Tarullo.pdf. Consumer and investor protection, anti-money-laundering efforts, and other nonprudential aims provide additional bases for regulation of

term wholesale funding. This objective, long neglected in financial regulation, is prominently featured in post-crisis statutory, regulatory, and supervisory reforms. The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) explicitly establishes financial stability and the containment of systemic risk as the aim of dozens of new regulatory provisions. Thus, for example, any firm whose failure could pose systemic risk is subject to prudential regulation, quite apart from its relationship with IDIs.

A second objective of macroprudential regulation is to avoid a harmful contraction of credit availability in significant regions or sectors of the economy, even if there were little chance of a financial crisis. This outcome could ensue were banks accounting for a material portion of credit extension simultaneously to come under solvency or funding pressures that caused them to pull back from lending. The importance of both macroprudential objectives is that the regulatory framework should aim to reduce the chances of transmission of systemic risk by such firms to a greater extent than traditional, microprudential regulation would.

But even stipulating these crucial objectives, why should prudential regulation need to involve itself with corporate governance? After all, there are many important forms of regulation applicable to corporations. A regulatory field may establish certain behavioral norms, require conformity with certain product or byproduct characteristics, or prohibit certain activities. Corporations are expected to conform to these obligations, many of which are extensive and detailed. While some regulatory systems require certain procedures within the regulated entities--particularly as remedial measures following violations--few, if any, create specific and significant ongoing requirements for corporate decisionmaking or oversight.

⁵ Some of the more important of these provisions are discussed in Daniel K. Tarullo (2012), "Financial Stability Regulation," speech delivered at the Distinguished Jurist Lecture, University of Pennsylvania Law School, Philadelphia, Pennsylvania, October 10, available at www.federalreserve.gov/newsevents/speech/tarullo20121010a.htm.

Corporate and securities law may establish a duty of management and directors to limit regulatory violations, but the rationale for these duties is to protect shareholders from the consequences of regulatory violation, not directly to further the public regulatory objective.⁶

The answer, I think, lies at least in part with the centrality and nature of risk in the activities of financial intermediaries. Risk-taking--whether well- or ill-considered--is perhaps the central activity of all financial intermediaries. Where those intermediaries are significantly leveraged and engaged in maturity transformation, the risk-taking carries substantial potential societal consequences beyond the possible losses to investors, counterparties, and employees of the financial firm. Microprudential and macroprudential regulation each respond to this divergence between the private and social balances of costs and benefits associated with a given level of risk-taking by financial intermediaries.

The focus of microprudential regulation is on the distortions to funding costs that may arise when depositors or capital markets do not require the funds they provide fully to price in the risks assumed by banks in using those funds, whether because of federal deposit insurance or expectations of a government safety net. The focus of macroprudential regulation is on the negative externalities that large financial firms can impose on the rest of the economy. In both instances, the private assessment by shareholders and their representatives of the risk-reward tradeoffs of the financial firm's activities will differ from the public's assessment of that risk-reward tradeoff. That is, while the public has an interest in healthy, profitable banks, and thus the interests of shareholders and the public overlap, they are not coincident.

⁶ For a discussion of this duty, particularly as applied to financial institutions, see Eric J. Pan (2010), "The Duty to Monitor under Delaware Law: From *Caremark* to *Citigroup*," The Conference Board, Director Notes, No. DN-004, available at www.conference-board.org/retrievefile.cfm?filename=DN-004-10.pdf&type=subsite.

At root, then, prudential regulation seeks to influence risk-taking in regulated entities. But this is difficult to do directly. Conceptually, "risk" is not reducible to a single metric, such as--for example--the density of particulate matter in the emissions of a power plant. Practically speaking, a financial institution more or less continually makes risk decisions, the circumstances of which can vary substantially over time, across asset classes, and even contemporaneously in a single asset class based on the differing circumstances of borrowers or counterparties.

Prudential rules can limit or prohibit certain bank activities that are thought to be particularly risky. With respect to activities that *are* permitted, prudential regulation can indirectly influence corporate decisions on risk-taking by requiring minimum amounts of capital to be held by the regulated firms. But, fundamental as they are to contemporary prudential regulation, capital requirements--particularly static, backward-looking standards--will necessarily be somewhat imprecisely related to the range of actual risk incident to specific assets or transactions within the various risk categories established by the capital regime. In fact, the capital regime may itself invite arbitrage, as firms look to maximize risk-taking within regulatory risk categories.

Thus it is also important for prudential regulation to influence the *processes* of risk-taking within regulated financial firms as a complementary tool to capital requirements and other substantive measures. This view is reflected in various banking laws, most notably in the Dodd-Frank Act requirement that all bank holding companies with \$10 billion or more in assets have a risk committee, composed of independent directors and "responsible for the oversight of the

⁷ Of course, strong capital requirements also build a loss absorption buffer that is useful in dealing with risks gone bad ex post, even if they cannot entirely contain those risks ex ante.

enterprisewide risk management practices" of the firm. This provision in itself requires only that the bank holding companies have capable and independent risk committees that, by extension, should be overseeing well-developed risk-management practices and systems of controls in the firms. It does not specify what the risk appetite of the firm should be. However, its inclusion in section 165 of the Dodd-Frank Act, which requires an array of additional prudential measures directed at firms that could pose threats to financial stability, suggests that the risk-committee mandate has a prudential motivation.

Of course, good risk management is important for shareholders as well. Regulatory prods for efficient management information systems and well-developed risk-assessment procedures should generally be welcomed by shareholders. Similarly, regulatory insistence on capable and independent oversight of risk management is consonant with shareholder interests, which might be damaged by employees who exercise poor judgment or whose compensation structures may incentivize them to take risks not desirable for the firm as a whole. To a considerable extent, then, fostering sound risk-management practices serves the overlapping interests of both shareholders and regulators.

The possible divergence of interests comes not in the architecture of risk management but in substantive decisions on risk appetite. How, then, might corporate governance be changed to incorporate risk considerations consistent with micro- and macroprudential regulatory objectives? One way would be to broaden the fiduciary duties of boards and management. The other, which has already been followed to some degree, is to apply regulatory and supervisory requirements to relevant corporate governance processes. Of course, realization of the first approach would require either changes in state corporate law or amendments to federal securities

⁸ Dodd-Frank Act §165(h). This provision further requires that the risk committee include "at least one risk management expert having experience in identifying, assessing, and managing risk exposures of large, complex firms."

or financial regulatory statutes. I shall speak briefly to this possibility after describing some examples of the second approach already in place, along with some possibilities for further measures.

Aligning Corporate Governance and Financial Regulation

With no claim to comprehensiveness, let me suggest three kinds of regulatory and supervisory measures that can better align corporate governance of financial firms with regulatory objectives.

First, regulatory requirements can be directed at changing the incentives of those making decisions within a financial firm. One good example is incentive compensation for senior managers and other bank employees with substantial decisionmaking authority. Compensation arrangements that create high-powered incentives using stock options or other forms of reward dominantly based on equity have their origins in efforts better to align management and shareholder interests. Otherwise, managers who stand to suffer reputational or job loss as their firm declines or fails may have a more conservative risk appetite than diversified shareholders, who value the upside of risk-taking and whose limited liability makes them relatively less concerned with catastrophic downside possibilities. As has been observed by numerous commentators, however, where these kinds of incentive compensation arrangements have succeeded in better aligning the interests of shareholders and employees, they intensify the conflict between shareholder and regulatory interests. In Ironically, regulatory objectives match

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⁹ See, for example, Lucian Bebchuk and Holger Spamann (2010), "Regulating Bankers' Pay," *Georgetown Law Journal*, vol. 98 (2), pp. 247-87; and Kenneth R. French, M. N. Baily, J. Y. Campbell, J. H. Cochrane, D. W. Diamond, D. Duffie, A. K. Kashyap, F. S. Mishkin, R. G. Rajan, D. S. Scharfstein, R. J. Shiller, H. S. Shin, M. J. Slaughter, J. C. Stein, and R. M. Stulz (2010), *The Squam Lake Report: Fixing the Financial System* (Princeton: Princeton University Press).

¹⁰ Indeed, if the incentives are powerful enough, they may give employees a *greater* risk appetite than even diversified shareholders are presumed to have.

up better with the old-style managers for whom the preservation of the firm is considerably more important than for shareholders.

Various suggestions for change have been made. Some have proposed making incentive compensation packages more closely reflect the composition of the liability side of a banking organization's balance sheet by including returns on debt, as well as equity, instruments in the calculation of compensation. Others have proposed the much simpler approach of making a significant part of incentive compensation deferred and subject to clawback and forfeiture, with the employee's ultimate right to the compensation dependent on the firm not having become insolvent, received government assistance, or experienced a similar triggering event. While developing the details of an effective mechanism that also allows for motivating employees to advance shareholder interests will take some work, some measure along these lines is key to adjusting incentives so as to promote prudential objectives across the many risk decisions made within the firm.

Incentive realignment can also be achieved by fostering more of the capital market discipline that has, as explained earlier, been limited. One example is a byproduct of measures to increase the total loss absorbency of systemically important financial firms by requiring minimum amounts of debt that could be converted to equity upon a firm's insolvency. As you may know, the Federal Reserve Board intends to issue a proposed rulemaking that would implement such a requirement at the largest financial firms. While the principal motivation of such a requirement is to help ensure that even a very large financial firm can be resolved in an orderly fashion without the injection of public capital, identifying debt instruments as convertible

¹¹ See Bebchuk and Spamann, "Regulating Bankers' Pay." Depending on how closely one would want to tie compensation to the prices of bonds, for example, there may be difficulties owing to the potential at times for interest rate risk fluctuations to overwhelm credit risk fluctuations in the price of debt instruments. Interest rate risk fluctuations would not reflect the performance or risk associated with a specific firm.

to equity in a context where resolution is a credible option should make the price of those instruments especially sensitive to the relative risk of failure of those firms. Requiring systemically important financial firms to issue a meaningful amount of long-term debt would indirectly influence corporate governance by introducing at-risk debt holders as a constituency whose concerns management must monitor and address.

A second kind of measure to align corporate governance at financial firms more closely to regulatory objectives is a substantive requirement or constraint upon decisions made within the firm. As a practical matter, it would be hard to develop a rule setting a comprehensive risk appetite consonant with regulatory objectives. However, there are regulatory requirements that can serve as partial surrogates for such a rule. A good example, already in place, is a feature of the Federal Reserve's program of stress testing and capital planning. A firm may not make capital distributions (whether in the form of dividends or capital repurchases) that would, when added to losses under hypothesized adverse scenarios as projected in our annual supervisory stress test, reduce the firm's capital below certain minimum levels.

When we adopted this rule several years ago, we were criticized by some for encroaching on the prerogative of boards of directors of financial firms to decide on capital distribution policies, in accordance with general corporate governance practice. This criticism has always seemed to me misplaced. After all, banking regulators are not only permitted, but obliged, to set minimum capital requirements at banking organizations and other systemically important financial firms. Limiting capital distributions is, conceptually, no different from requiring a firm to build capital in the first place. A regulation designed to maintain minimum capital levels in large banking organizations in a projected period of stress is consistent with the macroprudential

 $^{^{12}}$ Indeed, insured depository institutions are prohibited by statute from making any capital distribution that would render the firm undercapitalized. 12 U.S.C. §18310(d)(1).

objectives discussed earlier. Indeed, these requirements counteract the practices seen at some banks in the run-up to the financial crisis, whereby boards of directors continued to return capital to shareholders even as conditions deteriorated severely. Tying capital levels to corporate governance decisions about capital distributions simply recognizes that capital levels and capital distributions are two sides of the same coin.

A third kind of measure seeks to affect the institutions and processes of corporate governance, rather than directly to change incentive structures or regulate decisions. Many possible actions of this sort would really be efforts to improve the risk-assessment and risk-management capacities of management and boards, rather than to focus specifically on the divergence between shareholder and regulatory interests with respect to risk appetite. An effective system of controls is important both to shareholders and to regulators. Thus, for instance, the considerable and continuing emphasis we have placed on firms developing and maintaining effective management information systems makes risk assessment work better for shareholders, even as it facilitates supervisory oversight.

With respect to the institutional features of board oversight of risk management, there is also substantial overlap in the interests of shareholders and regulators. For example, both shareholders and supervisors should expect a board to include members with the expertise, experience, and time commitment that are appropriate to risk management of the kinds of activities in which the financial firm engages. Of particular interest are three board positions—the nonexecutive chair or lead director, the head of the risk committee, and the head of the audit committee. More generally, shareholders and supervisors must have confidence that globally active institutions with hundreds of thousands of employees have audit and risk committees with

¹³ Beverly Hirtle (2014), "Bank Holding Company Dividends and Repurchases during the Financial Crisis," Federal Reserve Bank of New York Staff Report No. 666 (New York: Federal Reserve Bank of New York, March), available at www.newyorkfed.org/research/staff_reports/sr666.html.

the practical ability to provide effective oversight of risk decisions.¹⁴ I might note in passing that regular discussion between board members and supervisors can also serve the interests of shareholders, since supervisors may have an informed perspective on the firm's operations that enables boards better to fulfill their strategic and risk-oversight functions.

Supervisors should also expect a well-conceived process for board review of major firm decisions, which will nearly always carry some implications for risk management and risk appetite. In practical terms, such a process would connect decisions on strategy, risk-appetite setting, and capital planning. Neither we nor shareholders should be comfortable with a process in which strategic decisions are made in one silo, risk-appetite setting in another, and capital planning in yet a third, with the convergence of these efforts coming together only when it is too late for each to affect the other, or for the board to be able to exercise effective oversight. These major decisions need to be made in an integrated manner.

While regulators should have clear expectations for boards, we need to make sure that we are creating expectations that lead to boards spending more time overseeing the risk-management and control functions I have emphasized this afternoon. There are many important regulatory requirements applicable to large financial firms. Boards must of course be aware of those requirements and must help ensure that good corporate compliance systems are in place. But it has perhaps become a little too reflexive a reaction on the part of regulators to jump from the observation that a regulation is important to the conclusion that the board must certify compliance through its own processes. We should probably be somewhat more selective in

¹⁴ There have also been proposals that boards of large financial firms have a small staff, independent of management, who can help the board sift through the often voluminous materials delivered by management to foster informed inquiries of management and decisions on risk appetite. For example, a proposal for a "dedicated secretariat" was offered by a parliamentary committee in the United Kingdom. See U.K. House of Commons Treasury Committee (2009), *Banking Crisis: Reforming Corporate Governance and Pay in the City*, (London: House of Commons, May), available at www.publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/519/519.pdf.

creating the regulatory checklist for board compliance and regular consideration. One example, drawn from Federal Reserve practice, is the recent supervisory guidance requiring that every notice of a "Matter Requiring Attention" (MRA) issued by supervisors must be reviewed, and compliance signed off, by the board of directors. ¹⁵ There are some MRAs that clearly should come to the board's attention, but the failure to discriminate among them is almost surely distracting from strategic and risk-related analyses and oversight by boards.

One might ask how the strengthening of systems of controls and risk-appetite decision processes can promote achievement of regulatory interests beyond those shared with the owners of firms. One answer is that it clearly improves the supervisory line-of-sight into the safety and soundness of financial firms. The more timely and accurate the information that can be aggregated by supervisors, the more responsive our supervisory and financial stability oversight can be. A well-developed set of risk and control functions also allows an effective point of entry for pursuing certain regulatory objectives. To date, the best example of this potential is our annual supervisory stress tests and Comprehensive Capital Analysis and Review (CCAR) to which I have already referred.

As a substantive matter, the CCAR requirements limit capital distributions of large financial institutions based upon a forward-looking assessment of the losses that would be suffered under hypothetical adverse economic scenarios, so that capital will be built and maintained at levels high enough for the firms to remain viable financial intermediaries even under such stressed conditions. In addition to the microprudential improvement that comes from

¹⁵ An MRA is a supervisory finding that the Federal Reserve communicates to the firm and requires remediation. For more information, see Board of Governors of the Federal Reserve System, Division of Banking Supervision and Regulation (2013), "Supervisory Considerations for the Communication of Supervisory Findings," Supervision and Regulation Letter SR 13-13 (June 17), www.federalreserve.gov/bankinforeg/srletters/sr1313.htm.

substituting a dynamic for a static capital calculation, there is an important macroprudential motivation, reflected in the design of scenarios and the required levels of post-stress capital.

The efficacy of the CCAR process is substantially enhanced as the information systems and internal risk-management capacities of the firm improve. Beyond this important, but discrete regulatory measure, well-developed processes for determining risk appetite give supervisors better insight into risks specific to the activities and strategic decisions of each firm. As a result, supervisors should be better able to identify points at which a firm's risk-taking may diverge from that which is consistent with microprudential and macroprudential objectives. This, in turn, should permit more timely supervisory or regulatory responses.

Regulatory Objectives and Fiduciary Duties

The regulatory focus on risk in corporate governance will produce additional examples of each of the three kinds of measures I have just described. For instance, the Office of the Comptroller of the Currency has recently proposed guidance for risk governance at large national banks. Still, particularly with an audience half composed of corporate law professors, it is natural to ask whether corporate law tools might usefully supplement regulatory measures. Specifically, the question arises as to whether the fiduciary duties of the boards of regulated financial firms should be modified to reflect what I have characterized as regulatory objectives. Doing so might make the boards of financial firms responsive to the broader interests implicated by their risk-taking decisions even where regulatory and supervisory measures had not anticipated or addressed a particular issue. And, of course, the courts would thereby be available as another route for managing the divergence between private and social interests in risk-taking.

¹⁶ U.S. Department of the Treasury, Office of the Comptroller of the Currency (2014), Guidelines Establishing Heightened Standards for Certain Large Insured National Banks, Insured Federal Savings Associations, and Insured Federal Branches; Integration of Regulations, 79 Fed. Reg. 4282 (January 27).

As I noted at the outset, there is a long history of actual or considered measures to alter the duties or liabilities of those with decisionmaking authority in the corporate governance of banks. A more contemporary variant on these ideas was offered a little over a decade ago by Jon Macey and Maureen O'Hara, who proposed expanded fiduciary duties for directors of insured banks, including giving bank creditors the right to sue for violations of these duties.¹⁷ In a provocative recent paper, John Armour and Jeff Gordon suggest that the duties of directors of systemically important financial institutions should be modified precisely because diversified shareholders have a strong interest in avoiding risk decisions by these institutions that increase systemic risk.¹⁸ Their analysis implies that the customary tension between regulatory and diversified shareholders' interests may be considerably mitigated in the case of systemically important firms whose failure could result in financial turbulence and consequent economic loss for the entire economy.

A consideration of the merits of these or other such proposals is beyond the scope of my remarks today. Obviously, any such changes in corporate law are beyond the authority of the Federal Reserve. I mention them in the hope and anticipation that corporate law scholars will continue to evaluate such ideas, since whatever one's eventual conclusions on their desirability, the analytic process is sure to yield further insights into the key question of how best to respond to the points of divergence between shareholder and regulatory interests in risk-taking by large financial firms.

¹⁷ Jonathan R. Macey and Maureen O'Hara (2003), "The Corporate Governance of Banks," Federal Reserve Bank of New York, *Economic Policy Review*, vol. 9 (April), pp. 91-107.

¹⁸ John Armour and Jeffrey N. Gordon (2013), "Systemic Harms and Shareholder Value," European Corporate Governance Institute Working Paper No. 222 (Brussels: ECGI, August), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2307959.

Conclusion

In the wake of the financial crisis, the changes in finance, in financial regulation, and in the relationship among government agencies that carry out prudential regulation have created any number of opportunities for financial law scholars to collaborate with their colleagues in other disciplines--from administrative law to constitutional law to bankruptcy law. This collaboration is perhaps natural, since major shocks to the economy, and thus the country, have in the past occasioned legal changes whose implications reached far beyond the original area of reform. As I hope you can tell from my remarks today, I have already found the interaction between corporate and financial law scholarship to have been helpful in thinking through the policies that will shape a safer financial system. I look forward to the fruits of the collaborations encouraged by the event sponsored today.