

THE REGULATOR EFFECT IN FINANCIAL REGULATION

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This Article examines situations in which government regulation makes mandatory the use of certain devices and institutions that have been generated by markets and private ordering in the financial sector. I refer to the process of taking devices and institutions created by market processes and making their use mandatory “regulation by assimilation” because the process involves the adoption and incorporation by the government of devices and institutions developed by participants in the financial markets for different (though often somewhat related) purposes. Devices and institutions that have been developed internally by market participants and then assimilated into regulation include the credit ratings generated by credit rating agencies (which were designated by regulators as Nationally Recognized Statistical Rating Organizations or NRSROs), the Value at Risk (VaR) models that measure the risk of financial institutions’ portfolios, the advisory and fairness opinions issued by investment banks in the context of significant corporate transactions, and the audits of corporations’ financial results by independent outside auditors.

This Article makes two contributions to our understanding of the regulation of financial market participants. First, I show that the phenomenon of regulation by assimilation is common, if not ubiquitous, in the financial world. Second, I show that the process of regulation by assimilation has negative consequences that have not previously been anticipated or even identified. These negative consequences manifest themselves by ossifying, as well as weakening, and even corrupting the efficacy of the private sector institutions and techniques that have been assimilated. The analysis in this Article indicates that the previously unidentified phenomenon of regulation by assimilation was a major cause of the financial crisis of 2007 and 2008 because it distorted the ability of firms and markets to measure and assess the riskiness of their activities.

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INTRODUCTION

In finance, regulators and market participants ostensibly have overlapping, if not identical, goals. These goals are to measure risk accurately and in a timely fashion, to improve the reliability of corporate disclosure in order to enable firms to make credible commitments to investors, and to cause scarce resources (capital) to flow to those market participants who can make the best use of it. Firms in search of investors and customers want to distinguish themselves from their rivals. Regulators want to enable investors and customers to make better decisions about how to allocate their resources.¹

Sometimes regulators and market participants use different techniques in order to accomplish their common goals. Regulators threaten to punish fraud with jail time. Market participants use securities design, incentive-based compensation, and other contractual devices to signal that they are telling the truth. Increasingly however, perhaps frustrated by their lack of success in detecting fraud and in identifying bubbles in the financial sector, regulators have abandoned traditional regulatory techniques in favor of promulgating rules that take the devices, mechanisms, and institutions being used in the private sector and assimilate them into regulations.²

Regulators' incorporation of market devices into regulation exemplifies what I term "regulation by assimilation." The most striking example of this phenomenon in finance is the adoption by regulators of the banks' internal, often proprietary, risk assessment Value at Risk (VaR) algorithms. Regulators in turn use the VaR algorithms to evaluate the financial conditions and capital needs of those same banks. Prior to the financial crisis, bank regulators noticed that financial in-

¹ See, e.g., *The Investor's Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation*, U.S. SECURITIES AND EXCHANGE COMMISSION, <http://www.sec.gov/about/whatwedo.shtml> (last visited Jan. 20, 2013) ("The mission of the U.S. Securities and Exchange Commission is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.")

² See *infra* Part II; see also TIMOTHY J. SINCLAIR, *THE NEW MASTERS OF CAPITAL* 10 (2005) ("Increasingly, ratings are key elements in transnational financial regulation.")

stitutions were using quantitative risk measurement techniques in order to determine the riskiness of their own activities. These models attempted to evaluate not only loan performance but also loan quality and managerial processes such as internal risk controls. Recognizing “the extent to which bank risk management and supervisory capital requirements share common objectives,”³ regulators assimilated banks’ own internal risk models into regulation. As a Federal Deposit Insurance Corporation (FDIC) official observed:

Of all the changes in capital regulation being considered by the Basel Committee on Banking Supervision, the most fundamental shift from current practice is that the risk-based capital requirements for the largest banks would no longer be based on a few preset ratios dictated by the regulators. Instead, these banks would play a major role in setting their own capital requirements by using their internal estimates of the underlying risk of each credit exposure as inputs into regulator-defined formulas called risk-weight functions. Collectively, this approach is known as the internal ratings-based (IRB) approach.⁴

This sort of “regulation by assimilation” is not limited to banks’ internal risk assessments. The technique of regulation by assimilation has become very widespread, indeed ubiquitous, among regulators in the financial sector. The examples of regulation by assimilation examined in this Article are: the co-option of the ratings generated by credit rating agencies, the fairness opinions produced by investment banks and other financial firms, the outside audits performed by independent accounting firms, and finally, and probably most importantly, the internal risk assessments (VaR models) generated by banks and investment banks to measure the riskiness of the assets held on and off of their balance sheets. Each of these examples of co-option is more or less well known—if not to the public, at least to market participants. Indeed, by definition, such co-option is perfectly transparent. Moreover, co-option often is strongly encouraged by regulated firms for a variety of reasons discussed here.

As a descriptive matter, this Article examines the removal of these devices from the purely private sphere and their assimilation into the broader regulatory framework. The descriptive analysis further generates the conclusion that the co-option of voluntary market mecha-

³ William L. Rutledge, Exec. Vice President of the Fed. Reserve Bank of N.Y., Speech Before the British Bankers Associations at the Basel 2/CAD 3 Half-Day Conference: Implementing the New Basel Accord (Mar. 13, 2003), *available at* <http://www.newyorkfed.org/newsevents/speeches/2003/rut031303.html>.

⁴ George French et al., *Risk-Based Capital Requirements for Commercial Lending: The Impact of Basel II*, FED. DEPOSIT INS. CORP. (Apr. 21, 2003), <http://www.fdic.gov/bank/analytical/fyi/2003/042103fyi.html>.

nisms inevitably corrupts these mechanisms and is likely to have contributed significantly to the recent financial crisis.

It is worth noting that the analysis offered here is analytically related to a previous generation of scholarship about the distinction between and the relative merits of mandatory rules imposed by law and enabling rules into which firms can opt at their discretion. In the recent past, much progress has been made towards a fuller understanding of the vital distinction between such mandatory rules and enabling rules in corporate law and contracts.⁵

Largely ignored, however, is the analogous phenomenon of regulatory co-option. Just as lawmakers may transform enabling rules that parties can contract around into mandatory rules that are immutable, so too do regulators sometimes compel the use of certain market devices and mechanisms that historically have been used by market participants, on a voluntary basis if at all. This is regulation by assimilation.

All market mechanisms begin as enabling mechanisms that emerge to solve some problem or other that is plaguing market participants.⁶ But often market mechanisms are clumsily co-opted by regulators who attempt to make certain regulations more efficient by incorporating the use of market mechanisms into the regulatory process. For example, credit ratings on government debt and corporate debt issued by credit rating agencies began as purely private (enabling) institutions. Nobody was required to use credit ratings. Later, however, the Securities and Exchange Commission (SEC), followed over time by a dazzling array of other regulators, including state insurance regulators and state and federal banking regulators, decided to make credit ratings mandatory for some companies under some circumstances. Thus, this enabling market institution gradually became mandatory for issuers.⁷

⁵ See Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 *YALE L.J.* 87, 87 (1989) (“The legal rules of contracts and corporations can be divided into two distinct classes. The larger class consists of ‘default’ rules that parties can contract around by prior agreement, while the smaller, but important, class consists of ‘immutable’ rules that parties cannot change by contractual agreement. Default rules fill the gaps in incomplete contracts; they govern unless the parties contract around them. Immutable rules cannot be contracted around; they govern even if the parties attempt to contract around them.”).

⁶ All rules begin as enabling rules in the sense that, in the absence of mandatory rules or other regulatory constraints, firms can adopt more or less any system of private ordering that they choose. Later, regulators codify these arrangements, choosing for various reasons to make some rules mandatory for firms and individuals and leaving others as enabling.

⁷ See Arthur R. Pinto, *Control and Responsibility of Credit Rating Agencies in the United States*, 54 *AM. J. COMP. L.* 341, 347 & nn.37–39 (2006) (discussing the process by which credit ratings became mandatory).

In addition to the descriptive project of detailing the process by which spontaneously generated market mechanisms are co-opted by government regulators, this Article makes a normative contribution in which it describes the corrupting influence of government co-option of naturally occurring market mechanisms. Analysis of the incidences of co-option reveals that market mechanisms do not remain the same after they are incorporated into regulation. Most significantly, the original, demand-driven motivation for utilizing a particular market mechanism disappears when the market mechanism is incorporated into a rule. In place of market demand, use of the market mechanism by private sector actors becomes driven by regulation. When this happens, the process of *implementing* the market mechanism is corrupted.

Continuing with our example above—the government co-option of private sector credit rating agencies—companies issuing securities originally procured credit ratings because the cost of the rating was less than the benefits that the rating provided to the issuer, which came in the form of a lower cost of capital on debt issues that had been vetted by independent, highly regarded rating agencies.⁸ In this unregulated environment, credit rating agencies had strong incentives to maintain their reputations for providing high quality ratings because, if the ratings they issued were not credible, investors would not pay more for highly rated securities than for other securities, and issuers would have no incentive to incur the cost of procuring a credit rating when issuing debt. This market dynamic was corrupted once investors were *required* by regulators to purchase securities rated by the established credit rating agencies.⁹ The largest credit rating agencies were transformed into “Nationally Recognized Statistical Rating Organizations” (NRSROs).¹⁰ Upon achieving this official, quasi-governmental status, these rating agencies no longer had to compete on the basis of the quality of their ratings. They sought to maximize profits by keeping the cost of producing ratings low.¹¹ Credit rating agencies had no incentive to improve the quality of the ratings.¹² But rating quality no longer mattered as issuers had to pay for ratings because regulations either mandated or created overwhelming incentives to obtain ratings from a governmentally sanctioned NRSRO.¹³

⁸ See *id.* at 341–42.

⁹ See Frank Partnoy, *How and Why Credit Ratings Agencies Are Not Like Other Gatekeepers*, in *FINANCIAL GATEKEEPERS: CAN THEY PROTECT INVESTORS?* 59, 63–64 (Yasuyuki Fuchita & Robert E. Litan eds., 2006).

¹⁰ See *id.* at 64.

¹¹ See *id.* at 65–66.

¹² See *id.* at 68 (noting how the credit rating agencies’ surge in profitability is “notwithstanding [their] abysmal recent performance”).

¹³ See FRANK PARTNOY, *INFECTIOUS GREED: HOW DECEIT AND RISK CORRUPTED THE FINANCIAL MARKETS* 406–07 (2009) (arguing that regulation leads to a distortion of incentives for gatekeepers and using credit rating agencies as an example); Francis A. Bottini, *An*

The notion that credit rating agencies do not generate information of value is fairly well known.¹⁴ What is not well understood is the fact that this was not always the case. Credit ratings used to be of high quality.¹⁵ Absent regulation, credit rating agencies had to generate very high quality information about issuers in order to survive.¹⁶ This quality was corrupted when ratings were co-opted into regulation. Most importantly, the corruption of credit rating agencies through regulation by assimilation is by no means unique. A number of important market mechanisms have been corrupted by regulation. In fact, it appears that whenever regulators attempt to co-opt a market mechanism, the market mechanism tends to become corrupted, even when the regulators are acting with the best of intentions.

The transformation of market institutions to mandatory institutions has been curiously understudied, particularly since one observes it quite often. In addition to credit ratings, audits once were voluntary but now are mandatory for public companies.¹⁷ And corpora-

Examination of the Current Status of Rating Agencies and Proposals for Limited Oversight of Such Agencies, 30 SAN DIEGO L. REV. 579, 603–08 (1993) (discussing SEC regulations that rely on oft-criticized credit ratings to exempt securities issuers and institutional buyers from disclosure requirements). The author notes how NRSROs in the 1970s and 1980s failed to downgrade credit ratings fast enough in a number of high profile instances, including the bond ratings of both New York City and the Washington Public Power Supply System. Bottini, *supra*, at 584–88. Furthermore, NRSROs were accused of attempting to influence and being influenced by politicians. *Id.* at 595–98. Allegations exist that the small number of NRSROs results in a lack of competition, leading to inadequate “disclosure of important financial information to investors who rely on the ratings.” *Id.* at 600. *Cf.* Jonathan R. Macey & Hillary A. Sale, *Observations on the Role of Commodification, Independence, and Governance in the Accounting Industry*, 48 VILL. L. REV. 1167, 1175–77 (2003) (providing an explanation of a similar process in the accounting industry); Pinto, *supra* note 7, at 351–55 (noting the difficulty of bringing litigation against NRSROs). *See generally* SINCLAIR, *supra* note 2 (providing an overview of the history of the credit rating industry).

¹⁴ *See* PARTNOY, *supra* note 13, 385–87; *see also id.* at 350 (noting that, in the period of corporate failings following Enron’s collapse, “[t]he last ones to react, in every case, were the credit-rating agencies, which downgraded companies only after all the bad news was in, frequently just days before a bankruptcy filing”); Efraim Benmelech & Jennifer Dlugosz, *The Credit Rating Crisis*, 24 NBER MACROECONOMICS ANN. 161, 161 (2010) (quoting economist Alan Blinder, who wrote in a 2007 *New York Times* article that “[i]nvestors placed too much faith in the rating agencies which, to put it mildly, failed to get it right”); Benmelech & Dlugosz, *supra*, at 202 (concluding that while less than ten percent of tranches were downgraded in 2007 to 2008, “the frequency and magnitude of downgrades reached record levels”).

¹⁵ *See* SINCLAIR, *supra* note 2, at 23–24.

¹⁶ *See* Partnoy, *supra* note 9, at 63 & n.18 (noting that due to the credit agencies’ failure to anticipate the market crash of 1929, “the credit rating industry went into a general decline,” and “credit rating agencies were not especially profitable”).

¹⁷ Under the Securities Act of 1933, companies that sell registered securities must supply a current balance sheet and income statements from the previous three years, all certified by an independent auditor. 15 U.S.C. § 77aa (2006) (setting out Schedule A, which includes the financial statement requirement in paragraphs 25–26). The Securities Exchange Act of 1934 requires that annual reports of companies be certified by “independent public accountants.” 15 U.S.C. § 78m(a)(2). Independent auditors are subject to

tions' internal risk assessments are being internalized into regulations.¹⁸

Likewise, various sorts of advisory services, particularly the rendering of fairness opinions, which are professional opinions rendered by investment banks about whether the terms of major corporate transactions (e.g., mergers, corporate acquisitions, share repurchases, and leveraged buyouts) are fair, began their existence as voluntary mechanisms. They now are essentially mandatory in a wide variety of contexts.¹⁹ Investment banks deliver fairness opinions typically for hefty fees, and in connection with their provision of financial advice, to corporations deciding whether to pursue important deals.²⁰

This Article proceeds as follows. Part I contains an analysis of the economic rationales for the use of the market mechanisms described in this Article. This section consists of a discussion of the specific market imperfections that private sector institutions are attempting to solve through various innovations. Not surprisingly, these market imperfections manifest themselves in the form of the transaction costs that confront companies when they try to raise capital from outsiders and the agency cost problems that confront shareholders and creditors who are trying to monitor the firms in which they have invested.

Part II contains an analysis of four critical voluntary market institutions that have been incorporated (co-opted) by regulators in various ways. These institutions consist of: (a) the credit ratings generated by credit rating agencies; (b) the fairness opinions generated by investment banks; (c) the outside audits provided by independent auditing firms; and (d) the internal risk assessments (generally VaR models) that financial institutions use to determine whether they have sufficient levels of capital to operate safely.

I

MARKET MECHANISMS AND THEIR CO-OPTION AND CORRUPTION

In the realm of corporate governance and finance, the market mechanisms examined in this Article initially were designed for the

“[s]trict liability and negligence-like causes of action.” See Macey & Sale, *supra* note 13, at 1173.

¹⁸ For example, in 1997, the SEC mandated that companies provide more information regarding the market risk of their derivatives. 17 C.F.R. § 229.305 (1999); Disclosure of Accounting Policies for Derivative Financial Instruments, Release Nos. 33-7386; 34-38223; IC-22487; FR-48, pg. 26–28 (Jan. 31, 1997). The rule offered companies three options, “the easiest of which was to disclose a VAR measure with a 95 percent confidence interval.” PARTNOY, *supra* note 13, at 262. The Federal Reserve and the Bank for International Settlements also favored using VaR models. *Id.*

¹⁹ See Steven M. Davidoff, *Fairness Opinions*, 55 AM. U. L. REV. 1557, 1558–60 (2006).

²⁰ See Marie Leone, *Fairness Opinion Neutrality Questioned*, CFO (Feb. 2, 2006), <http://www.cfo.com/article.cfm/5465857>.

purpose of mitigating various contracting and agency problems facing entrepreneurs, managers, and investors. Fairness opinions from investment banks and credit ratings from credit rating agencies were meant to ameliorate the contracting problem²¹ that results from the fact that contracting parties possess radically asymmetric information about the assets over which they are contracting.²²

The audits performed by independent accounting firms similarly reduce contracting costs by allowing firms to make credible promises that the financial information they are providing to investors and others is accurate.²³ In addition, outside, independent audits reduce agency costs by alerting directors and other corporate monitors about financial and accounting anomalies and irregularities that constitute red flags and require investigation.

Similarly, accurate internal risk assessments can serve the additional purpose of controlling agency costs within firms. More accurate assessments of risk not only help firms control their risks and establish minimum capital levels but also enable companies to provide more accurate incentive-based compensation and other rewards.²⁴ This, in turn, reduces the moral hazard that faces managers who are compensated on the basis of their performance, because adjusting the realized outcomes of particular investments for their risk has the effect of decreasing the returns of projects deemed to be relatively risky and concomitantly increasing the returns of relatively safe projects.²⁵

The consequences of subverting these market mechanisms described here can hardly be overstated. These market mechanisms served the function, in other words, of mitigating information asym-

²¹ See Davidoff, *supra* note 19, at 1563–69 (detailing the “scope, purpose, and form” of fairness opinions); Pinto, *supra* note 7, at 341–42 (noting the significance of credit rating agencies).

²² See Douglas O. Edwards, *An Unfortunate “Tail”: Reconsidering Risk Management Incentives After the Financial Crisis of 2007–2009*, 81 U. COLO. L. REV. 247, 283–85 (2010) (discussing information asymmetry).

²³ See PARTNOY, *supra* note 13, at 153 (noting that the use of Generally Accepted Accounting Principles (GAAP), as certified by independent accounting firms, “[was] a key factor in persuading investors that stock prices of companies . . . were fair and accurate”); Michael Minnis, *The Value of Financial Statement Verification in Debt Financing: Evidence from Private U.S. Firms*, 49 J. ACCT. RES. 457, 458–59 (2010) (“The role of an audit is to assure financial statement users that the statements are compiled and presented according to Generally Accepted Accounting Principles . . .”).

²⁴ See PARTNOY, *supra* note 13, at 40–41. The author describes the RAROC (Risk-Adjusted Return on Capital) model as adopted by Bankers Trust in the late 1980s and early 1990s to determine compensation for employees “not only on how much money they made, but also on how risky their business was.” *Id.*

²⁵ *Id.* at 41; see Carl L. Hyndman, Regulatory Update, *Internal Models for Measuring Credit Risk: Their Impact on Capital Needs*, 12 COM. LENDING REV. 58, 58–60 (1997) (describing the process by which banks employed the RAROC model to evaluate the riskiness of loans). See generally Bengt Hölmstrom, *Moral Hazard and Observability*, 10 BELL J. ECON. 74 (1979) (explaining how any disclosure may tend to ameliorate moral hazard).

metry problems, signaling problems, and credibility problems that if left uncorrected will, as George Akerlof famously explained, cause markets to implode.²⁶

A. Asymmetry of Information and the Inability to Make Credible Commitments

The analysis begins with the assumption that both private sector actors and public officials are acutely interested in facilitating capital formation. Of course, the private sector actors are concerned about raising money for their particular firms while public sector officials are presumably less concerned about the fate of particular firms than they are about the general economic environment in which capital formation takes place.

One way that this commonality of interests among private and public actors manifests itself is that both groups have incentives to fashion remedies for the contracting problems that plague companies in search of capital and their potential investors.²⁷ For example, when a company requires working capital or needs funding for a particular project, it will seek access to the public and private markets for debt or equity. The ability of companies to attract such capital will depend on their ability to convince investors that they will refrain from absconding with their investment dollars and will instead be able to offer a competitive rate of return on any funds entrusted to the company.

There are several ways that regulation and market forces attempt to overcome the credible commitment problem that makes it difficult for unknown market participants to attract capital. Among the most important potentially available strategies that may be deployed either separately or together are: (a) investing in reputation;²⁸ (b) submitting to an intensive regulatory regime in which fraud is pursued and punished assiduously;²⁹ and (c) submitting to a trading environment characterized by high degrees of transparency and efficiency so that fraud and misrepresentations quickly will be ferreted out by rivalrous

²⁶ See George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q. J. ECON. 488, 490 (1970).

²⁷ See Jonathan Macey, *The Value of Reputation in Corporate Finance and Investment Banking (and the Related Roles of Regulation and Market Efficiency)*, 22 J. APPLIED CORP. FIN. 18, 23 (2010); Stephen J. Choi & Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S. CAL. L. REV. 903, 941–42 (1998).

²⁸ Hiring one or more reputational intermediaries can serve as a substitute for a direct investment in reputation. Companies without reputations must either use reputational intermediaries or confine themselves to the loan market, where commercial banks and other lenders perform intensive (and costly) ongoing monitoring and use various protective covenants and other restrictions on borrowers to protect themselves against opportunistic behavior. See generally Macey, *supra* note 27.

²⁹ See Choi & Guzman, *supra* note 27, at 940–41 (“Through public regulation, . . . issuers are better able to commit credibly to remaining truthful in their securities disclosures.” (footnote omitted)).

competition among market professionals such as arbitrageurs and stock market professionals.³⁰

In his seminal 1970 article titled *The Market for Lemons: Quality Uncertainty and the Market Mechanism*,³¹ Professor Akerlof provided the theoretical foundation for the economic role of the strategies described above. The fundamental cause of the problem in search of solutions is “information asymmetry,” the situation that arises when one party to a transaction (usually the seller, though not always) has more and better information about the product or service than its counterparty. In cases where information asymmetries are large enough, markets will fail to the point of implosion unless something is done to restore the informational balance.³²

Akerlof explained the conditions under which information asymmetries lead to market collapse with an illustration from the market for used cars. In American vernacular, the cars of the poorest quality in this market are dubbed “lemons” while cars of the highest quality are “cherries.” In Akerlof’s model, all other cars—those whose quality is somewhere between these two extremes—are lumped together as “average.” In an ideal world of “perfect” (or costlessly available) information, all cherries will sell for the highest prices, all lemons for the lowest prices, and all average cars for prices in between. But now let’s consider what happens when we move from a world of “perfect markets” to one characterized by significant, even chronic, asymmetry of information—a world in which sellers and buyers often do not know one another, do not engage in repeat dealings, and, to make things worse, do not have reliable, well-informed reputational intermediaries to provide them with the information they lack. In this radically “imperfect,” informationally challenged world, sellers of both lemons and average cars may be tempted to pass their cars off as cherries. But buyers are not stupid; recognizing their own inability to distinguish among cars on the basis of quality, they reduce the price they are willing to pay by enough to compensate for the risk they are buying a lemon.

This set of arrangements and adjustments may work for a while. The problem, however, is that it is likely to lead to an unsustainable “non-equilibrium” in which some sellers of lemons receive a premium

³⁰ See John C. Coffee, Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 VA. L. REV. 717, 751–52 (1984) (arguing that the existing mandatory disclosure system is best explained by such an “efficiency-based” strategy); see also Paul A. Griffin et al., *Stock Price Response to News of Securities Fraud Litigation: Market Efficiency and the Slow Diffusion of Costly Information* 7 (Stanford Law Sch. John M. Olin Program in Law & Econ., Working Paper No. 208 2000), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=251766 (discussing several studies “document[ing] that the stock market reacts swiftly and negatively to a corrective disclosure that leads to securities class action litigation”).

³¹ Akerlof, *supra* note 26.

³² *Id.* at 490–91.

over the actual value of their cars while many other sellers of cherries are offered significantly less for their cars than they are worth. Once the buyers of the lemons discover that they have paid too much, they—and those who hear their stories—either will withdraw from the market or dramatically reduce the prices they offer to (the now discredited) sellers in the market. And once the sellers of cherries observe that they can no longer obtain a fair price for their cars, many of those sellers—particularly those with the best cars—will decline to put their cars on the market and will resort to other means of sale that do not involve impersonal market transactions. Such alternatives are likely to include transactions within the seller’s “circle of trust” such as family members or those with a close religious or ethnic affiliation.³³

The withdrawal of the highest-quality cars from the market results, of course, in a reduction in the average quality of the cars on the market. As cherries are withdrawn from the market, buyers will respond by adjusting downward the amount they are willing to pay to reflect the new reduced average quality of the cars in the market, which encourages still more sellers to withdraw their cars from the market. Soon, none of the best cars are available for sale and even owners of average quality cars begin to receive too little compensation for their vehicles. Once the average-quality cars start to disappear from the marketplace, buyers eventually recognize that the only cars available on the market are lemons and will lower their prices accordingly. This downward spiral in quality and price ultimately leads, as Akerlof’s model posits, to the complete failure of the market unless market participants figure out a way to solve the information problem confronting buyers and sellers.

Akerlof’s model applies with particular force in the context of the capital markets in which securities trading occurs. First, these markets are characterized by acute information asymmetry. Sellers of securities, particularly issuers or banks that have designed a particular trading instrument or developed the algorithm used to determine the value of the instrument, will have significant information advantages over their counterparties.³⁴ Second, the intuition that buyers will manage this information problem by paying a price for assets that re-

³³ See, e.g., *id.* at 499 (providing examples in which lenders avoid the lemons problem through personal knowledge of the contracting party’s character).

³⁴ See PARTNOY, *supra* note 13, at 398, 402 (“The information and sophistication gap between average investors and the companies whose shares they buy is now bigger than ever, thanks to the changes in markets, law, and culture since the late 1980s.”); see also David Aboody & Baruch Lev, *Information Asymmetry, R&D, and Insider Gains*, 55 J. FIN. 2747, 2747 (2000) (noting that, because of information asymmetry, “corporate insiders,” which the 1934 Securities and Exchange Act describes as “corporate officers, directors, and owners of 10 percent or more of any equity class of securities,” benefit from trading their firms’ securities); cf. Vesna Straser, *Regulation Fair Disclosure and Information Asymmetry* 5 (Univ. Notre Dame Dep’t of Econ., Working Paper 2002), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=311303 (noting that early disclosure of nonpublic informa-

flects the anticipated average quality of those assets to compensate for the risk of receiving low-quality assets seems particularly applicable to the world of corporate finance.³⁵ Following the principles of modern portfolio theory, investors routinely attempt to construct diversified portfolios of securities to eliminate the “firm-specific” risk (which might be thought of as the possibility that a particular firm turns out to be a lemon) associated with a particular investment.³⁶ Third, traditional strategies for overcoming the problem of asymmetric information at the heart of the lemons problem often do not work in the context of financial products.

Traditional strategies for confronting the lemons problem, such as offering product warranties, work well when the manufacturer is offering many units of the same product and consumers are concerned about the quality of the particular unit they are buying. But in the capital markets, the more typical concern is that an entire issue of securities will fail to perform as promised. Warranties, refunds, and exchanges, which are all forms of insurance for buyers, do not work in the context of securities offerings because when the issuer fails, all investors tend to suffer together.³⁷ Finally, stark differences around the world in the quality of capital markets appear attributable to the fact that the lemons problem is particularly acute in countries with poorly developed legal and regulatory systems for the obvious reason that, in such countries, sellers of securities are unable to commit credibly to telling the truth simply by submitting themselves to the sanctions imposed by law.

Thus, developing mechanisms and institutions for coping with the contracting problems generated by asymmetric information is among the most important tasks for economists, lawyers, and policy-makers. The credit ratings, fairness opinions, and audits by independent financial firms discussed in this Article are among the most important mechanisms and institutions ever developed by markets. The degradation caused by their assimilation into regulation has proved very costly.

B. Agency Costs

As Michael Jensen and William Meckling famously explained, both investors and entrepreneurs seeking investments have strong incentives to find ways to reduce agency costs because the investors and entrepreneurs will share the gains associated with eliminating this

tion to securities analysts or institutional investors “place[s] individual investors at a severe informational disadvantage”).

³⁵ See David Easley & Maureen O’Hara, *Adverse Selection and Large Trade Volume: The Implications for Market Efficiency*, 27 J. FIN. & QUANTITATIVE ANALYSIS 185, 185 (1992).

³⁶ PARTNOY, *supra* note 13, at 415–16. See generally Harry Markowitz, *Portfolio Selection*, 7 J. FIN. 77 (1952) (discussing modern portfolio theory).

³⁷ See Macey, *supra* note 27, at 22.

source of inefficiency.³⁸ Among the farrago of mechanisms used to align the interests of agents and principals are profit sharing, commission or piece-rate compensation, bonding through reputation building, and threats of firing or other disciplines.³⁹

But these sorts of rather crude mechanisms for addressing agency-cost problems sometimes present issues of their own. Technicalities occasionally make it difficult to devise contractual solutions for agency problems. For example, firms often compensate employees on the basis of their performance; in finance, employees such as traders and professional money managers are compensated on the basis of the returns generated by the portfolios of assets they assemble and trade. But these returns must be adjusted for the risks associated with these investments or else the incentive-based compensation can lead to the moral hazard of excessive risk-taking.⁴⁰ Unfortunately, the measurement of risk is more difficult, more subjective, and less precise than the measurement of returns. The elaborate and expensive internal risk assessment processes developed by financial firms were an important step on the path toward developing more accurate and precise measures of the risks associated with the assets held on and off the balance sheets of these institutions.⁴¹ Unfortunately, as the following section shows, the internal risk assessment process was corrupted when government regulators assimilated these internal risk assessments into their capital requirements for banks and other financial institutions.

II

FROM THE SUBLIME TO THE RIDICULOUS: FOUR TALES OF CO-OPTION

Markets must innovate in order to survive. As transaction and agency costs become more acute, the need to innovate becomes correspondingly more acute. It is difficult to identify markets in which the transaction and agency cost problems are more severe than the securities markets. Firms in search of investors' capital must somehow credibly commit to being able to act in the best interests of the investors who part with their money and have very little capacity to monitor or control the firms in which they have invested.

As Andrei Shleifer and Robert Vishny have provocatively observed:

³⁸ See Michael C. Jensen & William C. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 323–25 (1976).

³⁹ See *id.* at 323.

⁴⁰ See PARTNOY, *supra* note 13, at 41, 181–82; Edwards, *supra* note 22, at 283–87.

⁴¹ See Edwards, *supra* note 22, at 270–75; Hyndman, *supra* note 25, at 58–59. In March 1995, the top six Wall Street firms in the over-the-counter derivatives markets agreed to follow the “Framework for Voluntary Oversight” by improving internal risk management and controls and increasing disclosure of quantitative data to federal regulators in place of formal governmental regulation. PARTNOY, *supra* note 13, at 153.

How do the suppliers of finance get managers to return some of the profits to them? How do they make sure that managers do not steal the capital they supply or invest it in bad projects? How do suppliers of finance control managers?

At first glance, it is not entirely obvious why the suppliers of capital get anything back. After all, they part with their money, and have little to contribute to the enterprise afterward. The professional managers or entrepreneurs who run the firms might as well abscond with the money. Although they sometimes do, usually they do not.⁴²

From a legal perspective, the problem facing shareholders is even more vexing than that facing suppliers of capital more generally (bondholders, banks, and other fixed claimants). Unlike fixed claimants, shareholders are not entitled to dividends, much less capital appreciation.⁴³ Shareholders are residual claimants and, as such, are paid only when, and if, the boards of directors of their firms deem it appropriate. And they will not as long as managers and directors think that a company can invest the free cash flow of a firm more efficiently than the shareholders could invest it if the company paid taxes on it and then returned it to the shareholders in the form of dividends. Needless to say, shareholders are not entitled to any capital appreciation. Their economic rights are virtually non-existent. And their voting rights are not much more effective in providing any assurance that their investments will not be appropriated at the first opportunity by self-interested and rapacious officers and directors.⁴⁴

Despite all of this, we actually observe, at least in some economies during some time periods, not only “the flows of enormous amounts of capital to firms” but also, perhaps even more astonishingly, the “actual repatriation of profits to the providers of finance.”⁴⁵ It is worth observing that such capital flows and capital repatriation predates the emergence of the modern regulatory state.⁴⁶ Thus, it must be the

⁴² Andrei Shleifer & Robert W. Vishny, *A Survey of Corporate Governance*, 52 J. FIN. 737, 737 (1997).

⁴³ See Jonathan Macey, *CORPORATE GOVERNANCE: PROMISES KEPT, PROMISES BROKEN* 29–30 (2008).

⁴⁴ One of the most remarkable aspects of modern economic life is the fact that hundreds of millions of investors have been persuaded to part with hundreds of billions of dollars in exchange for residual claims on the cash flows of companies. The securities that represent these residual claims offer their owners virtually nothing in the way of formal, legal protections. Shareholders do not have the right to repayment of their principal, ever. Companies issuing the equity claims have no obligation to repurchase the shares from investors, regardless of how well or poorly the issuing companies perform. These companies are not under any obligation to pay dividends or make any other sort of payments to equity claimants. See *id.* at 29.

⁴⁵ Shleifer & Vishny, *supra* note 42, at 737.

⁴⁶ See Charles R.P. Pouncy, *Contemporary Financial Innovation: Orthodoxy and Alternatives*, 51 SMU L. REV. 505, 519–32 (1998) (providing a history of financial innovation start-

case that the market mechanisms and institutions discussed in this section are able to overcome the vast contracting problems facing companies in search of capital and potential investors.

A. The Making and Unmaking of Mandatory Credit Ratings

In a series of seminal articles, Frank Partnoy explains the way regulation has transformed the useful but rather narrowly focused credit rating industry into a regulatory-enhanced juggernaut. As Partnoy points out, the regulatory environment created by the SEC and perpetuated by a host of other state and federal regulatory agencies conveys significant regulatory benefits on those credit rating agencies that have been fortunate enough to receive the SEC's designation as NRSROs. Partnoy explains that credit rating agencies are distinctly characterized by an "oligopoly market structure that is reinforced by regulations that depend exclusively on credit ratings issued by Nationally Recognized Statistical Rating Organizations"⁴⁷

Prior to the intervention by the SEC, the credit rating agencies enjoyed a significant boom during the 1920s and then fell into a period of decline in the wake of the 1929 stock market crash.⁴⁸ That decline persisted until the early 1970s, when the SEC began to promulgate a series of highly technical and obscure regulations that transformed the credit rating agencies into powerful monoliths in the classic sense: rating agencies with the NRSRO designation that are massive, unchanging, and difficult to deal with on a human scale.⁴⁹

In 1975, the SEC imposed a uniform "net capital rule" on broker-dealer firms. The purpose of this rule was to insure that broker-dealer firms regulated by the SEC would have sufficient resources (capital) to meet their financial obligations to customers, counterparties, and creditors.⁵⁰ The SEC's strategy for ensuring that brokers had sufficient capital to meet their obligations was to require "every broker-dealer to maintain at all times specified minimum levels of liquid assets, or net capital, sufficient to enable a firm that falls below its minimum requirement to liquidate in an orderly fashion."⁵¹

It is important to note here that regulating capital is notoriously difficult to do. One of the bigger problems facing regulators is that not all assets are alike, particularly with respect to characteristics such as liquidity and risk. This problem is compounded by the fact that,

ing in 3500 B.C.E., including the development of securities and bonds starting in the sixteenth and seventeenth centuries).

⁴⁷ Partnoy, *supra* note 9, at 60.

⁴⁸ *See id.* at 62–63.

⁴⁹ *See id.* at 64–65; Pinto, *supra* note 7, at 343–44, 348.

⁵⁰ *See* 17 C.F.R. § 240.15c3-1 (2011); SINCLAIR, *supra* note 2, at 42.

⁵¹ Net Capital Requirements on Introducing Brokers' Proprietary Accounts Assets Held by Clearing Brokers, NYSE Interp. Memo 98-10 (Dec. 10, 1998).

unlike returns, which are easy to measure accurately in real time, risk and liquidity are extremely difficult to evaluate at all, and accurate measurements are virtually impossible, particularly in real time.⁵²

On a continuum measuring risk and liquidity, at one extreme would be short-term debt obligations of the U.S. government, which are highly liquid and virtually riskless. At the other extreme would be such things as unique individually negotiated commercial loans from individual banks to small, obscure companies and complex, untraded derivative instruments. It would make no sense whatsoever to require companies to maintain the same amount of capital to support assets such as cash and U.S. government notes as they must maintain to support assets such as consumer loans, commercial loans, and investments in complex derivatives.

The SEC's solution to this problem was to transform an existing private sector institution into a new quasi-government institution. The old institution was the credit rating agency. The new institution into which the old credit rating agencies magically were transformed was the NRSRO. In an apparently well-intended effort to inject some subtle gradations into its net capital rules, the SEC decided that bonds and other debt obligations held by broker-dealers that had high ratings from an NRSRO were safer (more liquid and stable) than other unrated obligations. As such, the SEC reasoned, broker-dealer firms were allowed to hold less capital for the highly rated assets on their balance sheets than what was required to offset the unrated (or poorly rated) assets on their balance sheets.⁵³

And, because capital is very expensive for financial firms, especially relative to debt,⁵⁴ it was less costly for firms to hold qualifying NRSRO-rated securities than other assets, all else equal. The new net capital rules thus created an incentive for banks to invest in highly rated NRSRO securities, thereby raising the importance of credit ratings to issuers.

⁵² Risk is difficult to measure: when we observe in retrospect the performance of a financial asset, it is simple to measure the returns to investors by looking at capital gains and periodic payments such as dividends or interest payments; for risk, there is no such tangible measure, even after the fact. See ACCENTURE, NAVIGATING THE COMPLEXITIES OF LIQUIDITY RISK 2 (2010), http://www.accenture.com/SiteCollectionDocuments/PDF/Navigating_the_Complexities_of_Liquidity_Risk_Final_Low_Res.pdf (noting that "liquidity risk [is] extraordinarily difficult to measure").

⁵³ See 17 C.F.R. § 240.15c3-1(c)(2)(vi)(E)–(H) (2011) (allowing deductions from the net capital requirements if a security obtains a certain rating from NRSROs); SINCLAIR, *supra* note 2, at 42; cf. Partnoy, *supra* note 9, at 64 (discussing the SEC's decision to begin relying on the ratings of the NRSROs).

⁵⁴ "[D]ebt is cheap and equity is expensive." Brad Case, *Should Banks Hold More Capital? It Worked Out Great for REITs*, SEEKING ALPHA (Feb. 6, 2011), <http://seekingalpha.com/article/251069-should-banks-hold-more-capital-it-worked-out-great-for-reits>.

The use of the NRSRO designation to determine how much capital a broker-dealer was required to have in order to comply with the net capital rules was followed by an even more profound regulatory co-option of the private sector role of credit rating agencies. Here, the obscure regulation is SEC Rule 2a-7, which pertains to what are arguably the most important and fragile financial institutions in the SEC's domain: money market mutual funds.⁵⁵

Mutual funds, are investment companies whose assets consist of investments in securities issued by other corporations. Money market mutual funds are a particular subset of mutual funds that compete with commercial banks by holding themselves out to the public as offering stable asset prices that feature safe, stable repositories for liquidity.⁵⁶ Money market mutual funds compete with bank checking accounts by maintaining a stable net asset value of \$1.00 per share. This, in turn, permits investors in these funds to enjoy check-writing privileges while still obtaining more competitive rates of return than often are available from bank checking accounts.⁵⁷

Money market funds are widely used by individual consumers and by corporations. Money market funds' assets are extremely important sources of short-term liquidity for investors and borrowers around the world.⁵⁸ Institutional investors use them as a cash-management tool.⁵⁹ Money market mutual funds are by far the largest customers for commercial paper and repurchase agreements (repos) in the world.⁶⁰

In observing the emergence of money market mutual funds onto the mutual fund landscape, the SEC felt compelled to devise regulations that would limit the ability of mutual funds to deceive investors by calling themselves *money market* mutual funds but not investing in the very high quality and highly liquid assets that would enable the

⁵⁵ See 17 C.F.R. § 270.2a-7 (2011).

⁵⁶ See PARTNOY, *supra* note 13, at 129 (stating that money market mutual funds are “supposed to be ultra-safe, basically a substitute for cash or a checking account”).

⁵⁷ See MARCIA STIGUM, *THE MONEY MARKET* 1176–78 (3d ed. 1990). For a discussion of how money market mutual funds function and benefit investors, see generally *id.* at 1176–1203.

⁵⁸ Press Release, Jeffrey Gordon, Columbia Law Sch., SEC Punts on Financial Stability Reform (Sept. 10, 2012), http://www.law.columbia.edu/media_inquiries/news_events/2012/september2012/jeffrey-gordon-sec (describing money market funds as a “\$3 trillion financial intermediary”).

⁵⁹ *Assessing the Current Oversight and Operation of Credit Rating Agencies: Hearing Before the S. Comm. on Banking, Hous., & Urban Affairs*, 109th Cong. 4 (2006) [hereinafter *Hearing*], available at http://banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=316a0acc-f3bc-4d8b-b09f-d013fb60e81b (statement of Paul Schott Stevens, President, Investment Company Institute).

⁶⁰ See STIGUM, *supra* note 57, at 1180 (noting that mutual money funds place most of their money in, among other things, commercial paper and repos); Markus K. Brunnermeier, *Deciphering the Liquidity and Credit Crunch 2007–2008*, 23 J. ECON. PERSP. 77, 79–80 (2009) (noting a similar trend).

funds to be able to withstand large-scale efforts by investors to obtain liquidity by cashing in (redeeming) their investments simultaneously.

The SEC “solved” this problem by promulgating SEC Rule 2a-7. Rule 2a-7 restricts the kinds of securities that funds calling themselves money market mutual funds can invest in. The purpose of the rule is to make sure that the mutual fund invests in assets of sufficient quality and liquidity that the fund will be able to maintain a stable net asset value of one dollar even in times of significant stress and turmoil in the markets. Rule 2a-7, at the time of the financial crisis, provided that money market funds would be limited to investing in securities that were rated by an NRSRO in one of its two highest short-term rating categories (unless the board of directors determined that an unrated security was of comparable quality). Rule 2a-7 also required money market funds to continuously monitor the ratings of the securities in their portfolios and to respond appropriately in case of a downgrade.⁶¹

Over time the reliance by regulatory agencies on the SEC’s NRSRO designation metastasized into the thousands, even defying scholars’ efforts to quantify all of the regulations at the federal, state, and local levels that relied on the NRSRO designation.⁶² The invention of the NRSRO designation was very good for credit rating agencies. This regulation-driven demand for ratings motivated Thomas Friedman’s witticism that there are only two superpowers in the world—the United States and Moody’s—and that sometimes it was not clear which was more powerful.⁶³

Astonishingly, as Frank Partnoy has observed, when Thomas Friedman made his famous quip, the credit rating agencies had not even begun their meteoric rise. Moody’s, the only publicly traded NRSRO, had operating revenues, profitability, capitalization, and market share consistent with that of a participant in a government-protected cartel.⁶⁴ The value of Moody’s stock increased more than 300% in the five-year period prior to the 2007 market crash as the demand for rating agencies’ services blossomed as more and more exotic credit derivatives were issued (and rated).⁶⁵

⁶¹ *Hearing, supra* note 59, at 4–5.

⁶² See Frank Partnoy, *The Paradox of Credit Ratings*, in RATINGS, RATING AGENCIES AND THE GLOBAL FINANCIAL SYSTEM 65, 74–78 (Richard M. Levich et al. eds., 2002) [hereinafter Partnoy, *Paradox of Credit Ratings*].

⁶³ Interview by David Gergen with Thomas L. Friedman (Feb. 13, 1996).

⁶⁴ *Accord* Partnoy, *supra* note 9, at 65 (discussing Moody’s financial performance since 2000).

⁶⁵ See *id.* at 66–67; U.S. S. PERMANENT SUBCOMM. ON INVESTIGATIONS, COMM. ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS, WALL STREET AND THE FINANCIAL CRISIS: ANATOMY OF A FINANCIAL COLLAPSE 256–58 (2011).

Also, significantly, around this period, the largest credit rating agencies—Moody’s, Fitch, and Standard and Poor’s (S&P)—began to charge the issuers for ratings.⁶⁶ Previously, these credit rating agencies generated revenue by selling subscriptions to publications that contained, among other material, the ratings they generated.⁶⁷ The credit rating agencies designated as NRSROs “have benefited from an oligopoly market structure that is reinforced by regulations that depend exclusively on credit ratings issued by Nationally Recognized Statistical Rating Organizations (NRSROs). These regulatory benefits . . . generate economic rents for NRSROs that persist even when they perform poorly.”⁶⁸

And perform poorly they do. Empirical studies indicate that credit ratings contain little, if any, timely or accurate information about issuers.⁶⁹ While many have observed the poor performance of the credit rating agencies and lamented the distortions caused by the NRSRO designation, none have suggested, as I do, that there is a causal link between the NRSRO designation and the rating agencies’ poor performance. Professor Partnoy, for example, takes the view that credit rating agencies never performed well. But if credit rating agencies always performed poorly, it is unclear why they were, at least at one time, of value to investors and issuers.⁷⁰ Rather it appears that credit rating agencies played a very modest role in corporate finance until the NRSRO designation uncoupled their profits from their performance.

Historically, “the only reason that rating agencies [were] able to charge fees at all [was] because the public ha[d] enough confidence in the integrity of these ratings to find them of value in evaluating the riskiness of investments.”⁷¹ Before companies were required to obtain ratings for their newly issued debt (so that their customers would be

⁶⁶ See Partnoy, *supra* note 9, at 64 (“[C]redit rating agencies abandoned their historical practice of charging investors for subscriptions and instead began charging issuers for ratings . . .”).

⁶⁷ See Lawrence J. White, *The Credit Rating Industry: An Industrial Organization Analysis*, in RATINGS, RATING AGENCIES AND THE GLOBAL FINANCIAL SYSTEM, *supra* note 62, at 41, 47. Professor White attributes this shift to the development of low-cost photocopying, which limited the credit rating agencies’ ability to prevent free riding on the ratings they generated by nonpayers.

⁶⁸ Partnoy, *supra* note 9, at 60.

⁶⁹ See Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 WASH. U. L.Q. 619, 647–48, 658–59 (1999) [hereinafter Partnoy, *Siskel and Ebert*].

⁷⁰ See Richard Sylla, *A Historical Primer on the Business of Credit Rating*, in RATINGS, RATING AGENCIES, AND THE GLOBAL FINANCIAL SYSTEM, *supra* note 62, at 19, 23–30 (discussing the market forces that led to the development of credit rating agencies and their contributions).

⁷¹ Jonathan R. Macey, *Wall Street Versus Main Street: How Ignorance, Hyperbole, and Fear Lead to Regulation*, 65 U. CHI. L. REV. 1487, 1500 (1998) (book review).

permitted by regulators to buy such debt), the only rationale for paying for a credit rating was that the cost of obtaining the rating was lower than the benefit, which came in the form of lower borrowing costs for debt that was subjected to the scrutiny of the credit rating agencies.

Nevertheless, it is not at all clear from the historical evidence that credit rating agencies ever were particularly good at generating accurate ratings. As Martin Fridson has observed, the historical evidence shows correlation between some massive mistakes (like Enron)⁷² and a tendency toward ratings inflation, but there also has been a correlation between ratings, defaults and losses, and net returns, suggesting that ratings did historically generate some information of value to investors.⁷³ From this perspective, it appears that a major part of the problem that government regulation created in the credit rating context was that the NRSRO designation caused credit ratings to be taken too seriously. Credit ratings, which used to be a mere sideshow in American corporate finance, became the main attraction in the capital markets' biggest tents.

Moreover, to a large extent, credit ratings are a product of market inefficiency. Credit ratings are necessary in order to compensate for a lack of market-generated information.⁷⁴ Over time, as information technology improves and competition among market participants increases, information asymmetry problems lessen, and one would expect that the natural evolution of the capital markets would be toward less reliance on credit ratings.⁷⁵ Instead, of course, because of the NRSRO designation, credit ratings have become more rather than less important.

The phenomenon of rising demand for credit ratings over time does not appear to be the result of either improved credit ratings or deteriorating capital markets. In fact, the data suggests the opposite.⁷⁶ Empirical studies have documented that yield spreads of corpo-

⁷² Claire A. Hill, *Why Did Anyone Listen to the Rating Agencies After Enron?*, 4 J. BUS. & TECH. L. 283, 283 (2009).

⁷³ Martin Fridson, *Bond Rating Agencies: Conflicts and Competence*, 22 J. APPLIED CORP. FIN. 56, *passim* (2010).

⁷⁴ See *supra* Part I.A (discussing the problem of information asymmetry).

⁷⁵ As markets become more efficient, ratings become less relevant because in an efficient market, the information gleaned from ratings will be contained in securities prices themselves. The role of credit ratings is to help close the information gap between lenders and borrowers by providing independent opinions of creditworthiness. See *The Role of Credit Ratings in the Financial System* (May 17, 2012, 2:24 PM), <http://www.standardandpoors.com/ratings/articles/en/us/?articleType=HTML&assetID=1245333793833>; see also Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 79 VA. L. REV. 594, 609–12 (1984) (discussing various mechanisms through which financial markets become more efficient).

⁷⁶ See Koresh Galil, *The Quality of Corporate Credit Rating: An Empirical Investigation* 6 (Oct. 2003) (unpublished Ph.D. dissertation, Eitan Berglas School of Economics,

rate bonds start to expand as credit quality deteriorates but before a rating downgrade.⁷⁷ These results cast doubt on the informational value of credit ratings because they indicate that prices in the capital markets generally anticipate future downgrades by the credit rating agencies. This data also suggests that differences in yields among securities (credit spreads)—the varying rates of return that investors can expect when buying securities with higher or lower yields—reflects the increases (or decreases) in risk associated with these various investments.

Once credit ratings were co-opted by the government's NRSRO designations, not only did their business explode but their basic business model changed as well. Quality became less important because the NRSRO regulatory framework decoupled the quality of the ratings generated by the credit rating agencies from the demand for their services. Thus, the rational response from the credit rating agencies was to lower costs. As Frank Partnoy has suggested, the growth in size and profitability in credit ratings likely is attributable to cost savings:

Both S&P and Moody's have high levels of staff turnover, modest salary levels and limited upward mobility; moreover, investment banks poach the best rating agency employees. These factors limit the ability of rating agencies to generate valuable information.

In addition, the process agencies use today to generate ratings does not obtain any obvious advantages over competing information providers and analysts. Credit rating agencies do not independently verify information supplied to them by issuers, and all rating agencies get the same data. Both Moody's and S&P make rating determinations in secret. The agencies never describe their terms or analysis precisely or say, for example, that a particular rating has a particular probability of default[,] and they stress that the ratings are qualitative and judgmental. This secretive, qualitative process is not the type of process one would expect if the agencies had survived based on their ability to accumulate reputational capital. On the other hand, such processes make it more likely that an agency would be able to survive in a noncompetitive market; if the rating process had been public or quantitative (rather than qualitative), other market entrants easily could have duplicated the rating agencies' technology and methodology.⁷⁸

Tel-Aviv University), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=406681 (concluding that S&P ratings during the sample period, from 1983 to 1994, are "not fully informative" in regards to predicting default, as "[t]he probabilities of default for two adjacent rating categories are not significantly different from each other").

⁷⁷ See Doron Kliger & Oded Sarig, *The Information Value of Bond Ratings*, 55 J. FIN. 2879, 2880 (2000) (noting MacDonald Wakeman's 1981 study argued that rating changes "lag rather than lead security-price changes").

⁷⁸ Partnoy, *Paradox of Credit Ratings*, *supra* note 62, at 72–73 (footnote omitted).

The consequences of the misguided decision to incorporate credit ratings into securities and capital markets regulations were severe. The evidence shows that, whatever the quality and reliability of credit ratings might have been prior to the end of the twentieth century, the rating agencies failed dismally between 2001 and 2008. As Thomas Gorman and many others have observed,

[c]redit rating agencies, and in particular, nationally recognized statistical rating organizations (“NRSRO”), have been thought by many to be at the center of much of what went on with the market crisis, particularly in the area of structured products. The agencies have come under significant criticism for their methodologies, lack of procedures and conflicts of interest.⁷⁹

The evidence strongly suggests that credit rating agencies lowered their standards between 2001 and 2008, especially with respect to their ratings of structured financial instruments.⁸⁰ In particular, as Fridson points out, many credit default obligations received arguably “undeserved Triple-A ratings”⁸¹ during this period, making it simply “impossible to defend the agencies’ . . . ratings of mortgage-related

⁷⁹ Thomas O. Gorman, *Dodd-Frank Impact on Credit Rating Agencies*, LEXISNEXIS COMMUNITIES (Aug. 24, 2010, 9:39 AM), <http://www.lexisnexis.com/COMMUNITY/CORP-SEC/blogs/corporateandsecuritieslawblog/archive/2010/08/24/dodd-frank-impact-on-credit-rating-agencies.aspx>.

⁸⁰ Structured finance is the catchall term for financial transactions that create new, often complex, legal entities (special purpose vehicles) whose sole purpose is to issue debt securities on a stand-alone basis (meaning the entities had no business of their own apart from issuing securities) in which the repayment of principal and interest on the securities created is based on the cash flows generated by assets such as mortgages, credit card receivables, and car loans. See Andreas A. Jobst, *A Primer on Structured Finance*, 13 J. DERIVATIVES & HEDGE FUNDS 199, 200–01 (2007). Structured financial instruments include a wide variety of securities issued by specialized entities, primarily: asset-backed securities, mortgage-backed securities, collateralized mortgage obligations, collateralized debt obligations, collateralized bond obligations, and collateralized obligations of hedge funds and private equity funds. See *id.* at 201–02. In technical terms, structured investments typically (i) combine traditional asset classes with contingent claims, such as risk transfer derivatives or derivative claims on commodities, currencies or receivables from other reference assets, or (ii) replicate traditional asset classes through synthetication or new financial instruments. Structured finance is invoked by financial and nonfinancial institutions in both banking systems and capital markets if either (i) established forms of external finance are unavailable (or depleted) for a particular financing need, or (ii) traditional sources of funds are too expensive for issuers to mobilize sufficient funds for what would otherwise be an unattractive investment based on the issuer’s desired cost of capital. Structured finance offers issuers enormous flexibility to create securities with distinct risk-return profiles in terms of maturity structure, security design, and asset type, providing enhanced return at a customized degree of diversification commensurate to an individual investor’s appetite for risk. Hence, structured finance contributes to a more complete capital market by offering any mean–variance trade-off along the efficient frontier of optimal diversification at lower transaction cost. The increasing complexity of the structured finance market and the ever-growing range of products being made available to investors, however, invariably create challenges in terms of efficient management and dissemination of information. *Id.* at 200–01.

⁸¹ Fridson, *supra* note 73, at 60.

collateralized debt obligations”⁸² because fully “89% of the investment grade mortgage-backed securities ratings that Moody’s awarded in 2007 were subsequently reduced to speculative grade.”⁸³

Rating-structured financial obligations such as collateralized debt obligations (CDOs) is particularly difficult for credit rating agencies it seems:

[W]hen a rating agency rates a mortgage-related CDO, it may have greater difficulty controlling the conflict that arises from the issuer-pay model. To begin with, the issuer is not an existing company with a new need for capital. Rather, the prospective offering has come about because an underwriter has structured a financing around a pool of mortgages. The deal is contingent on selling the senior tranche to investors who will accept a comparatively low yield in exchange for a very high level of perceived safety. Therefore, if the bankers are not fairly confident of being able to obtain a Triple-A rating on the senior tranche, they will not even bother to commence work on the deal. In that case, the CDO will not be created and the rating agencies will receive no revenue.⁸⁴

The NRSRO regulatory framework ultimately created a “competitive” environment in which the oligopolistic credit rating agencies issuing NRSRO ratings inevitably would come to view the most rational business model to be that of supplying ratings not for the purpose of conveying information but for the purpose of providing prophylactic protection against various risks, including litigation risk and the risk of underperforming against one’s rivals.⁸⁵

In response to the simultaneous increased reliance on and deteriorating quality of ratings, regulators recently have begun to try to fix the problem they caused in inventing the NRSRO designation. The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) created a new office of credit ratings that is responsible for administering the processes by which NRSROs calculate credit ratings. This office is tasked with conducting an annual audit of each NRSRO and issuing a public report on the NRSRO’s performance.⁸⁶

In order to improve the flawed credit ratings, the SEC, which in my view actually caused the poor quality of the ratings by inventing the NRSRO concept in the first place, now is responsible for the corporate governance of the credit rating agencies. Each NRSRO is re-

⁸² *Id.* at 56.

⁸³ *Id.*

⁸⁴ *Id.* at 58.

⁸⁵ See Partnoy, *Siskel and Ebert*, *supra* note 69, at 681–82, 690–703.

⁸⁶ See Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), Pub. L. No. 111-203, § 932(a) (8) (p) (1), 124 Stat. 1376, 1877 (codified in scattered sections of U.S.C. (Supp. IV 2011) (“The Commission shall establish within the Commission an Office of Credit Ratings.”); Gorman, *supra* note 79.

quired by Dodd-Frank to have a board of directors that is responsible for overseeing a system of internal controls over the policies and procedures used to determine ratings and other internal issues, such as promotion and compensation.⁸⁷

Dodd-Frank requires the SEC to regulate credit rating agencies in a number of additional ways. New rules must be promulgated to: (a) preclude ratings from being influenced by sales and marketing;⁸⁸ (b) define the meaning of rating symbols and require that they be used consistently;⁸⁹ (c) require each NRSRO to establish, maintain, and enforce policies and procedures that “clearly define and disclose the meaning of any symbol used by the [NRSRO] to denote a credit rating” and apply any such symbol “in a manner that is consistent for all types of securities and money market instruments for which the symbol is used”;⁹⁰ (d) require that each NRSRO assess and disclose the probability that an issuer will default or otherwise not make payments in accord with the terms of the instrument;⁹¹ (e) establish the criteria for the qualifications, knowledge, experience, and training of persons who perform ratings;⁹² (f) require the disclosure of information that will permit the accuracy of ratings and foster comparability among the agencies to be evaluated;⁹³ and (g) require the disclosure, on a form which will accompany each rating issued, of information about the underlying assumptions, procedures, and methodologies employed as well as the data used in establishing the rating.⁹⁴ These provisions are all based on the idea that SEC regulation can improve the quality of the ratings generated by the NRSROs.

Dodd-Frank also makes it easier for investors to sue credit rating agencies.⁹⁵ This provision, of course, is based on the notion that the threat of liability can improve quality of the ratings generated by the NRSROs.⁹⁶

⁸⁷ See Dodd-Frank Act § 932(a)(2)(B)(3) (requiring establishment of internal control structure); *id.* § 932(a)(8)(t) (“Each nationally recognized statistical rating organization shall have a board of directors.”).

⁸⁸ § 932(a)(4)(3).

⁸⁹ § 932(a)(8)(q)(1).

⁹⁰ § 938.

⁹¹ § 932(a)(8)(s)(3)(B)(ii)(II).

⁹² § 936.

⁹³ § 932(a)(8)(q)(1).

⁹⁴ § 932(a)(8)(s)(1)–(3). The Act mandates that the SEC require NRSROs to “prescribe a form to accompany the publication of each credit rating that discloses” assumptions used, data, and use of servicer or remittance reports, as well as “information that can be used by investors and other users of credit ratings to better understand credit ratings in each class of credit rating issued by the nationally recognized statistical rating organization.” § 932(a)(8)(s)(1).

⁹⁵ See Gorman, *supra* note 79.

⁹⁶ Dodd-Frank Act § 931(3).

The sequence of events culminating in the provisions of Dodd-Frank related to credit rating agencies is strongly supportive of the hypothesis of this Article, which is that government co-optation of private institutions tends to cause the deterioration of such institutions. First, the government co-opted credit rating agencies by relying on NRSRO's credit ratings to regulate financial institutions. This regulation ultimately distorted credit rating agencies' incentives and removed their prior market-driven incentives to produce high quality ratings. But the regulation also created more dependence on credit ratings than ever before. This in turn created an acute need for more regulation (which came in the form of Dodd-Frank) aimed at improving the poor performance of the credit rating agencies that the prior regulations caused in the first place.

Congress's recognition in Dodd-Frank of the failures resulting from regulators' co-optation of credit rating agencies went even further than these new regulations of credit rating agencies. Section 939A of Dodd-Frank requires the SEC to review its myriad regulations referencing credit ratings and to modify those regulations so as to "remove any reference to or requirement of reliance on credit ratings."⁹⁷ In place of these credit ratings, the SEC must promulgate "standard[s] of credit-worthiness as each respective agency shall determine as appropriate for such regulations."⁹⁸

The implications of this rule change are manifold. In particular, the investment advisors who manage money market funds, at least in theory, should no longer rely automatically on the credit ratings generated by NRSROs when making investment decisions; money market fund managers will have to analyze their investments on their own.⁹⁹ Removing reliance on the credit rating agencies will reduce systemic risk by decreasing the tendency of mutual funds to have investments that are highly correlated with (i.e., the same as) the investments of other mutual funds.¹⁰⁰ Prior to Dodd-Frank, mutual funds advisers and other money managers were tempted to pick the highest-yielding assets within any particular ratings category in order to maximize the

⁹⁷ § 939A(b).

⁹⁸ *Id.*

⁹⁹ See Christopher J. Zimmerman, *Over- or Under-Rated? The SEC Proposes Credit Rating Amendments Impacting Money Market Funds*, 18 *INVESTMENT L.* 1, 4–6 (2011), available at http://www.stradley.com/library/files/investment_lawyer_-_chris_zimmerman_authored_-_may_2011.pdf (discussing the impact of the new rules on money market funds, observing that the purpose of these rules is to diminish reliance on credit ratings, and predicting that, while firms will continue to rely on ratings in the short run, this reliance may diminish over time).

¹⁰⁰ See Sushil Bikhchandani & Sunil Sharma, *Herd Behaviors in Financial Markets*, 47 *IMF STAFF PAPERS* 279, 282 (2000) ("Intentional herding may be inefficient and . . . can lead to excess volatility and systemic risk." (footnote omitted)).

risk-adjusted returns associated with their investments.¹⁰¹ Requiring money managers to make decisions on the basis of their own risk analysis rather than relying on credit rating agencies will, therefore, at least in part, reduce the systemic risk caused by the “herd behavior” of money managers.¹⁰²

To the extent that regulators must now remove the regulatory co-option of the credit rating designation, credit rating agencies will have to once again compete on the basis of the quality of their ratings as the artificial demand for their services created by regulation subsides. Ironically, this means that the quality of the ratings generated by the agencies should improve just as professional money managers become less reliant on their use. In retrospect, the creation and expansion of the NRSRO designation can be viewed as an experiment with the regulatory co-option of privately generated credit ratings. Clearly this experiment failed; the very act of incorporating credit ratings into the regulatory framework changed the incentives of the companies issuing such ratings and ultimately corrupted the quality of the ratings themselves.

B. Selling Indulgences: The Judicial Co-Option of Fairness Opinions

For officers and directors of U.S. public companies, fundamental corporate decisions are dangerous events. Even when officers and directors are negotiating and structuring transactions that promise huge profits for shareholders, the risk is great that the directors and officers considering these transactions will be sued by attorneys purporting to represent either shareholders—complaining that the price obtained by the company for its assets was too low—or creditors—complaining that the price obtained by the company for its assets was too low or involved too much debt and thereby decreased the value of the creditors’ claims.

The plaintiffs bringing these claims typically structure their lawsuits as class actions or derivative suits. The complaints generally al-

¹⁰¹ Timothy E. Lynch, *Deeply and Persistently Conflicted: Credit Rating Agencies in the Current Regulatory Environment*, 59 CASE W. RES. L. REV. 227, 284–85 (2009) (explaining that investors’ “herding behavior” was in part caused by the supposed authority of credit rating agencies in evaluating risk); see Lynne L. Dallas, *Short-Termism, the Financial Crisis, and Corporate Governance*, 37 J. CORP. L. 265, 314–15 (2012) (exploring the various incentives for asset managers to engage in herd behavior); cf. PARTNOV, *supra* note 13, at 132 (noting that in the 1990s “fund managers all seemed to be buying the same financial instruments”).

¹⁰² See David S. Scharfstein & Jeremy C. Stein, *Herd Behavior and Investment*, 80 AM. ECON. REV. 465, 477 (1990) (describing the reasons for herd behavior as applied to the stock market). See generally Abhijit V. Banerjee, *A Simple Model of Herd Behavior*, 107 Q.J. ECON. 797 (1992) (setting out a model of herd behavior); Bikhchandani & Sharma, *supra* note 100 (providing an overview of recent theoretical and empirical research on herd behavior).

lege that the corporate managers approving a significant transaction breached their common law fiduciary duties of care, loyalty, or good faith in making their decision.¹⁰³ Litigation of this kind is considered to be—along with markets, contracts, norms, and other structural features—an important part of the corporate governance framework that constrains corporate managers.¹⁰⁴

In response to the omnipresent threat of litigation, corporate officers and directors seek guidance from lawyers about how to reduce this threat. These corporate officers and directors, of course, pay rapt attention to the suggestions that judges make about how corporate actors should conduct themselves when making major decisions.

One major defensive weapon in managements' arsenal is the fairness opinion. Fairness opinions generally take the form of letters, addressed to the board of directors of a corporation that is in the process of making an important decision, that articulate the opinion of the letters' issuer as to the adequacy or "fairness[] from a financial point of view" of a particular course of action.¹⁰⁵ Fairness opinions generally contain detailed valuations of the company being bought and sold.

For years, courts have emphasized that board members can rely on fairness opinions as an integral part of their decision-making process. Such opinions are an important aid in the quest of directors to obtain the protections from liability provided by the business judgment rule.¹⁰⁶

¹⁰³ Cf. Cheryl Gross Weiss, *A Review of the Historic Foundations of Broker-Dealer Liability for Breach of Fiduciary Duty*, 23 J. CORP. L. 65 (1998) (examining the historical development of a broker-dealer's fiduciary duty to investors and customers).

¹⁰⁴ See, e.g., PARTNOY, *supra* note 13, at 167–71. Professor Partnoy notes that class action lawsuits supplied a more important threat of liability than government prosecution, at least until the mid-1990s when Congress and courts made securities legislation harder to pursue. *Id.* at 171–72.

¹⁰⁵ See, e.g., J.Crew Group, Inc., Proxy Statement Annex B (Schedule 14A) (Dec. 6, 2010), available at http://edgar.sec.gov/Archives/edgar/data/1051251/000119312510274106/dprem14a.htm#toc121900_28a (Fairness Opinion of Perella Weinberg in the TPG acquisition of J.Crew); Schering-Plough Corp., Registration Statement Annex B (Form S-4) (May 20, 2009), available at <http://sec.gov/Archives/edgar/data/310158/000095012309009217/y77207sv4.htm#213> (JPMorgan's Fairness Opinion in the Merck acquisition of Schering-Plough); see also HOULIGAN CAPITAL, FAIRNESS OPINIONS: USES & ISSUES 1, <http://www.houlihan.com/ace-files/FairnessOpinionsUsesandIssues.pdf> (explaining that a fairness opinion is "a letter prepared by an . . . investment banker . . . which states whether or not a transaction—from a financial point of view—is fair").

¹⁰⁶ Where the business judgment rule applies to a corporate decision, the directors making the decision are presumed to have made their decision on the basis of a "bona fide regard for the interests of the corporation whose affairs the stockholders have committed to their charge." *Gimbel v. Signal Cos.*, 316 A.2d 599, 608 (Del. Ch. 1974). Where directors have the protection of the business judgment rule, they are insulated from liability except in the exceedingly rare situation where the plaintiff is able to prove that the "directors, in reaching their challenged decision, breached any one of the *triads* of their fiduciary duty—good faith, loyalty or due care." *Cede & Co. v. Technicolor, Inc.*, 634 A.2d 345, 361

Over time, despite occasional protestations by courts to the contrary, as a practical matter, there developed “the widespread belief that a fairness opinion is required for protection under the business judgment rule.”¹⁰⁷ For example, in the seminal case *Smith v. Van Gorkom*,¹⁰⁸ although the Delaware Supreme Court expressly observed that fairness opinions were not required under Delaware law, the court did impose liability on directors in that case; notably, the fact that the board had failed to obtain a fairness opinion clearly did not help its case.¹⁰⁹ It seems plausible that obtaining a fairness opinion “would have insulated the directors from liability,” and this, in turn, translated into the creation of what accurately has been described as “an informal requirement.”¹¹⁰ Since January 1985, when the Delaware Supreme Court ruled against the directors of Trans Union Corporation in *Van Gorkom*, fairness opinions have become “customary.”¹¹¹

In this way, fairness opinions are no longer simply a source of information about a proposed transaction or financing. Rather, obtaining a fairness opinion has become like the practice of buying indulgences prior to the Protestant Reformation, but for sins that one is

(Del. 1993) (citations omitted). If the plaintiff cannot sustain the burden of proving bad faith, disloyalty, or gross negligence, the plaintiff “is not entitled to any remedy unless the transaction constitutes waste.” *In re Walt Disney Co. Derivative Litig.*, 906 A.2d 27, 74 (Del. 2006) (footnote omitted).

¹⁰⁷ Helen M. Bowers, *Fairness Opinions and the Business Judgment Rule: An Empirical Investigation of Target Firms’ Use of Fairness Opinions*, 96 NW. U. L. REV. 567, 571 (2002).

¹⁰⁸ 488 A.2d 858 (Del. 1985).

¹⁰⁹ *Id.* at 876–81 (“[W]e [do not] state that fairness opinions by independent investment bankers are required as a matter of law.”).

¹¹⁰ Charles M. Elson, *The Duty of Care, Compensation, and Stock Ownership*, 63 U. CINN. L. REV. 649, 677 (1995) (footnote omitted); see Daniel R. Fischel, *The Business Judgment Rule and the Trans Union Case*, 40 BUS. L. 1437, 1453 (1985) (asserting that after *Van Gorkom*, “no firm considering a fundamental corporate change will do so without obtaining a fairness letter”); Stephen I. Glover & Doretha M. VanSlyke, *Fairness Opinion Issues: Anything but Routine*, NAT’L L.J., Apr. 15, 1996, at C13 (discussing the ubiquitous presence of fairness opinions in merger transactions, even when the companies “agree to merge without help from financial advisers”); Michael J. Kennedy, *Functional Fairness—The Mechanics, Functions and Liabilities of Fairness Opinions*, in HANDLING HIGH-TECH M&As IN A COOLING MARKET: ENSURING THAT YOU GET VALUE 605, 607 (2001) (noting that fairness opinions are delivered “in almost any transaction of note involving public companies”); Bill Shaw & Edward J. Gac, *Fairness Opinions in Leveraged Buy Outs: Should Investment Bankers Be Directly Liable to Shareholders?*, 23 SEC. REG. L.J. 293, 293 (1995) (“Over the last decade, the fairness opinion has become a necessary and integral aspect of every major corporate control transaction. Directors feel they must seek the advice and blessing of investment banks before engaging in an action that requires them to enter the thicket of conflicting interests.”); cf. Andrew Ross Sorkin, *A Dual Role for Lehman in Deal Talks*, N.Y. TIMES, June 3, 2005, at C1, available at <http://query.nytimes.com/gst/fullpage.html?res=9C0DE3D81738F930A35755C0A9639C8B63> (noting that a deal was especially unusual because the acquiring board did not seek a fairness opinion).

¹¹¹ Paul Sweeney, *Who Says It’s a Fair Deal?*, 8 J. ACCT. 44, 45 (1999).

about to commit instead of for past sins.¹¹² The practice is very widespread¹¹³ but is not entirely legitimate.

In addition to the widespread use of fairness opinions, companies retained investment bankers to provide them with advisory services even more regularly than they retained such banks to furnish them with fairness opinions.¹¹⁴ Clearly judges' opinions in fiduciary duty cases, particularly the opinion articulated in *Van Gorkom*, increased the demand for financial advisory services. On average, sixty-one percent of target firms report obtaining fairness opinions.¹¹⁵ The percentage of firms using fairness opinions was in decline prior to *Van Gorkom*, but the percentage increased dramatically following this decision.¹¹⁶ The frequency of firms reporting the use of investment banks' advisory services has, in contrast, held steady at over ninety percent.¹¹⁷

Significantly, in my view, the data show that the use of fairness opinions in corporate acquisitions was extremely widespread prior to the 1985 decision in *Van Gorkom*. As shown in Figure 1,¹¹⁸ for example, in 1980, fully ninety percent of target companies involved in acquisitions obtained fairness opinions. Figure 1 also shows that the use of fairness opinions was on a steady decline until 1982, when it experienced a one-year uptick before continuing its sharp downward trend that ended only in 1985 when the Delaware Supreme Court decided *Van Gorkom*.

¹¹² In the Catholic faith, an indulgence is a reduction or diminution in the punishment that otherwise would be owed for a sin committed. Abuses in selling and granting indulgences provided a significant motivation for the Protestant Reformation initiated by Martin Luther in 1517.

¹¹³ See Lucian Arye Bebchuk & Marcel Kahan, *Fairness Opinions: How Fair Are They and What Can Be Done About It?*, 1989 DUKE L.J. 27, 27 (1989) (noting that fairness opinions "have become a regular feature of every major corporate control transaction," such as "negotiated mergers, freeze-out mergers, hostile tender offers, friendly tender offers, self-tenders, leveraged buyouts, negotiated share repurchases, [and] negotiated sales of treasury stock" (footnotes omitted)).

¹¹⁴ See Bowers, *supra* note 107, at 573–74, 577.

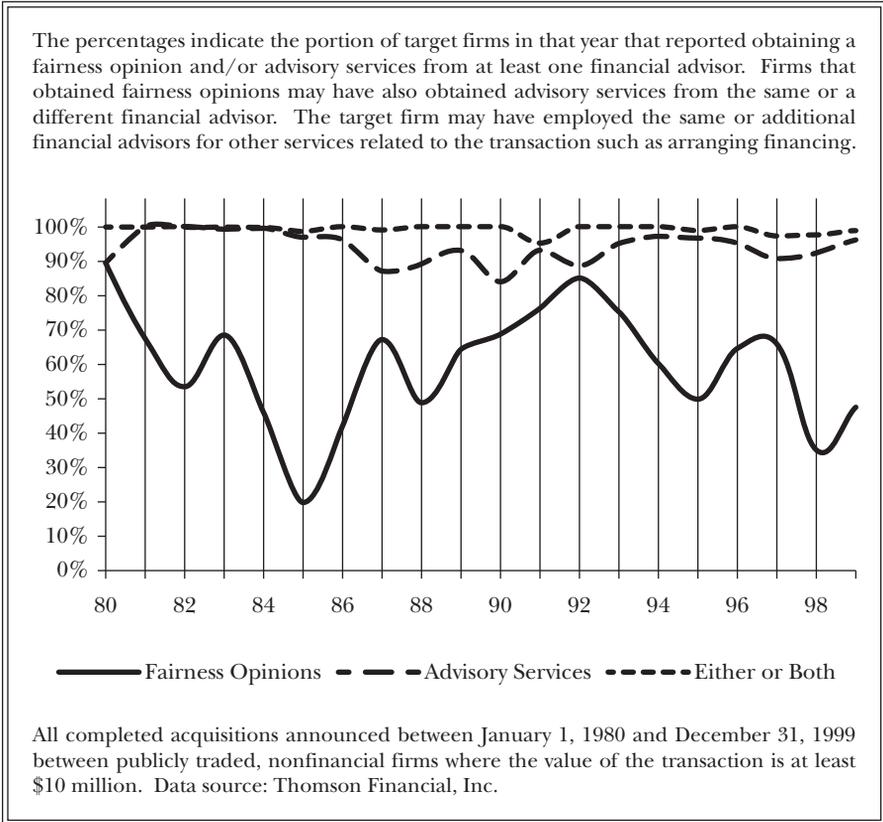
¹¹⁵ *Id.* at 577.

¹¹⁶ *Id.* at 573–74 (noting that in the year following *Van Gorkom*, use of fairness opinions jumped from 19% to 42% and "use of opinions generally increased throughout the remainder of the 1980s"). Professor Bowers also found that the frequency of use after the late 1980s returned to levels similar to before *Van Gorkom*. See *id.* at 574–75.

¹¹⁷ *Id.* at 577.

¹¹⁸ *Id.* at 573.

FIGURE 1: COMPARISON OF THE PERCENTAGE OF TARGET FIRMS USING ADVISORY SERVICES AND FAIRNESS OPINIONS



SOURCE: Helen M. Bowers, *Fairness Opinions and the Business Judgment Rule: An Empirical Investigation of Target Firms' Use of Fairness Opinions*, 96 Nw. U. L. REV. 567, 573 (2002).

This, in turn, strongly suggests that, at least prior to 1985, the demand for fairness opinions was driven by a genuine desire on the part of directors and officers to get the benefit of an investment banker's judgment about whether the price being considered in a particular control transaction was fair. During this period of time, investment banks and other firms generating fairness opinions were concerned about maintaining the value of their reputational capital. This desire provided them with incentives to produce fairness opinions that were economically valid and untainted by conflicts of interest.¹¹⁹

¹¹⁹ See Stephen Choi, *Market Lessons for Gatekeepers*, 92 Nw. U. L. REV. 916, 934-36 (1998) (discussing the market forces that drive competition between certifiers such as investment companies who issue fairness opinions).

Following *Van Gorkom*, however, the demand for fairness opinions became decoupled from the quality of those opinions for several reasons. First, the courts evaluating fairness opinions did not seem to particularly care about whether the bank generating the fairness opinion had a reputation for producing accurate and reliable valuations.¹²⁰ It appears that an opinion from any well-known investment bank would suffice. This, in turn, created a “competitive” environment, in which the cartel of well-known investment banks issuing fairness opinions would rationally view their business model as supplying opinions not for the purpose of conveying information but for providing prophylactic protection against litigation risk. In this environment, the rational, profit-maximizing strategy would be for firms offering fairness opinions to compete for market share by offering fairness opinions with the results preferred by target company boards of directors. Banks offering these sorts of opinions would, it would seem, be more likely to be retained by companies than competitors who suffered the reputation of offering fairness opinions with results that target management did not want to receive.

Providers of fairness opinions have little difficulty determining the precise opinions that their clients want to hear. Generally, the people generating fairness opinions know the terms of the deal they are evaluating, including the price of the offer. They also know whether the management or boards of directors who have retained them approve of the proposed deal or not. Advisors usually have experience with the management team that hires them to render a fairness opinion.¹²¹

There might be room for entry into the business of offering fairness opinions by firms who can develop a reputation for offering reliable opinions. However, the co-option of fairness opinions into fiduciary duty analysis has distorted those incentives. Prospective new entrants are hobbled in the post-*Van Gorkom* regulatory environment because such new entrants would, ironically, likely not be as useful in protecting boards’ decisions from legal attack precisely because they are not well known to courts. Directors would find themselves in the awkward position of having to explain to skeptical plaintiffs’ attorneys and judges why they decided to seek a fairness opinion from an unknown parvenu instead of a well-known, long-established firm such as Goldman Sachs.

So, two facts emerge from this analysis. First, although fairness opinions are not, strictly speaking, required by law, bankers are almost always retained to offer fairness opinions in deals involving the sale of

¹²⁰ See Bebchuk & Kahan, *supra* note 113, at 43–44 & n.92 (noting that courts have not paid much attention to the trustworthiness of investment firms issuing fairness opinions).

¹²¹ Bowers, *supra* note 107, at 577.

public companies or other transactions in which directors face litigation risk.¹²² At the same time, unfortunately, it is also the case that the banks that prepare fairness opinions never say that the transaction that they are evaluating is actually “unfair.”¹²³ Rather, the fairness opinion has been transformed into a mere “rubber stamp” that is used “to justify the deal” under consideration to litigious investors.¹²⁴

Even those who support the notion that fairness opinions might potentially be of use to investors in the current regulatory environment conclude that the banks issuing such opinions must be tightly regulated.¹²⁵ Unfortunately, these scholars apparently ignore the fact that the reason why fairness opinions lack “meaning” and are devoid of a “useful function” is because they no longer are being commissioned by directors for the market-driven purpose of obtaining a thoughtful, sophisticated, unconflicted analysis of a proposed transaction.¹²⁶ Rather, such opinions are commissioned in order to guard against the imposition of liability from opportunistic plaintiffs.

In sum, absent the judicial co-option described above, fairness opinions had to be accurate or else companies would have no incentive to procure such opinions because they are costly. However, in the face of judicial co-option, fairness opinions have become less reliable since the basic motivation for seeking such opinions has changed. Ab-

¹²² As one popular investor website observes, “[w]hile they’re not technically required by law, Fairness Opinions almost always get issued for deals that involve the sale of public companies due to lawsuits: no matter how much a company sells for, someone is bound to sue them.” Brian DeChesare, *Investment Banking Fairness Opinions: Profitable and Prestigious, or Glamorless Gruntwork?*, MERGERS & INQUISITIONS, <http://www.mergersandinquisitions.com/investment-banking-fairness-opinions/> (last visited Jan. 20, 2013).

¹²³ *Id.*

¹²⁴ *Id.*; see Bebchuk & Kahan, *supra* note 113, at 29–37 (discussing the preparer’s substantial discretion with respect to a fairness opinion); Bernard Black & Reinier Kraakman, *Delaware’s Takeover Law: The Uncertain Search for Hidden Value*, 96 NW. U. L. REV. 521, 555–57 (2002) (criticizing fairness opinions for their “doubtful” value); William J. Carney, *Fairness Opinions: How Fair Are They and Why We Should Do Nothing About It*, 70 WASH. U. L.Q. 523, 532–35 (1992) (criticizing fairness opinions for lack of precision and inability to predict price); Charles M. Elson, *Fairness Opinions: Are They Fair or Should We Care?*, 53 OHIO ST. L.J. 951, 952–70 (1992) (criticizing fairness opinions for having “dubious” value); Dale Arthur Oesterle & Jon R. Norberg, *Management Buyouts: Creating or Appropriating Shareholder Wealth?*, 41 VAND. L. REV. 207, 214 (1988) (“[T]he chicanery of using made-to-order fairness opinions is probably widespread . . .”); Michael W. Martin, Note, *Fairness Opinions and Negligent Misrepresentation: Defining Investment Bankers’ Duty to Third-Party Shareholders*, 60 FORDHAM L. REV. 133, 140–41 (1991) (“Occasionally, during the mergers-and-acquisitions boom of the 1980s, the rendering of a fairness opinion became a mere formality performed after a deal was structured . . .” (footnote omitted)); David Henry, *A Fair Deal—But for Whom?*, BUS. WK., Nov. 24, 2003, at 108 (criticizing investment banks rendering fairness opinions for their lack of objectivity and conflicts of interest). See generally Charles M. Elson et al., *Fairness Opinions: Can They Be Made Useful?*, [Aug.–Nov.] SEC. REG. & L. REP. (BNA) No. 35, at 1984 (Nov. 24, 2003) (discussing various criticisms of investment bank fairness opinions).

¹²⁵ See Davidoff, *supra* note 19, at 1608–09.

¹²⁶ *Id.*

sent judicial co-option, the motive for obtaining a fairness opinion is to obtain valuable information from a reliable expert source. After the fairness opinion was co-opted into the law of corporate fiduciary duties, the purpose of such opinions changed entirely. In this post-assimilation environment, the purpose of fairness opinions was and is still to insulate officers and directors from liability in anticipated derivative and class action litigation. This, in turn, transformed and degraded the market for fairness opinions.

C. Making Outside Audits Mandatory

Reliable information about the financial condition and financial performance of companies is obviously of great importance to investors. Historically, companies in the capital markets have demanded the services of independent outside auditors in order to be able to signal to the market that the financial results being reported by the company are accurate.¹²⁷ This need to provide a credible signal of the integrity and reliability of financial statements is particularly acute in light of the strong incentives that managers have to misstate earnings and other indicia of financial performance:¹²⁸

[A]uditors' reputations are central to the standard economic theory of auditing. Only auditors with reputations for honesty and integrity are valuable to audit-clients. The idea is that, absent a reputation for honesty and integrity, the auditor's verification function loses its value. In theory, then, auditors invest heavily in creating and maintaining their reputations for performing honest, high-quality audits. High-quality audits by independent auditors who

¹²⁷ Theodore Eisenberg & Jonathan R. Macey, *Was Arthur Anderson Different? An Empirical Examination of Major Accounting Firm Audits of Large Clients*, 1 J. EMPIRICAL LEGAL STUD. 263, 266 (2004). Thus, outside auditors do not perform any services for a company that the company does not already perform for itself. The role of the auditor is not to prepare financial reports for clients (that is the role of the accountant). Rather, the auditor's role is to provide a reliable verification of the company's financial reports. *Id.*

¹²⁸ See generally Rick Antle, *Auditor Independence*, 22 J. ACCT. RES. 1 (1984) (offering two definitions of auditor independence); George J. Benston, *The Value of the SEC's Accounting Disclosure Requirements*, 44 ACCT. REV. 515 (1969) (examining the value of SEC's accounting disclosure requirements for investors); Ronald R. King, *Reputation Formation for Reliable Reporting: An Experimental Investigation*, 71 ACCT. REV. 375 (1996) (exploring reputation formation in a market setting); Ronald R. King, *Reputation Formation for Reliable Reporting: An Experimental Investigation*, 71 ACCT. REV. 375 (1996) (exploring reputation formation in a market setting); Norman Macintosh et al., *Accounting as Simulacrum and Hyperreality: Perspectives on Income and Capital*, 25 ACCT. ORGS. & SOC'Y 13 (2000) (asserting that accounting no longer represents reality but instead is a self-referential system); Brian W. Mayhew, *Auditor Reputation Building*, 39 J. ACCT. RES. 599 (2001) (modeling auditor reputation building); Brian W. Mayhew et al., *The Effect of Accounting Uncertainty and Auditor Reputation on Auditor Objectivity*, 20 AUDITING J. PRAC. & THEORY 49 (2001) (examining the impact of accounting uncertainty on auditor objectivity); Ross L. Watts & Jerold L. Zimmerman, *Agency Problems, Auditing, and the Theory of the Firm: Some Evidence*, 26 J.L. & ECON. 613 (1983) (detailing the historical development of the auditing profession).

have good reputations are assured. The quality assurance is derived from the fact that performing poor-quality audits diminishes the value of the audit firm's investment in reputation.¹²⁹

In previous work, Theodore Eisenberg and I have described this as the "pre-Enron" view of the accounting industry. This model of the accounting industry, which was generally embraced by the law and economics movement,¹³⁰ predicted that accounting firms would compete in a healthy, reputational "race-to-the-top":

There was a time when the audit function was carried out in a market environment that induced high quality financial reporting. In that era, accounting firms were willing to put their seal of approval on the financial records of a client company only if the company agreed to conform to the high standards imposed by the accounting profession. Investors trusted accountants because investors knew that any accounting firm that was sloppy or corrupt could not stay in business for long. Auditors had significant incentives to do "superior audit work" because "auditors with strong reputations could command a fee premium, and high fees 'signaled' quality in the auditing market."¹³¹

Audit firms had incentives to provide high-quality audit services because they wanted to protect their reputation for independence and integrity.¹³² As Professor Eisenberg and I have observed previously,

[i]n a world in which auditors have both invested in developing high-quality reputations and in which no single client represents more than a tiny fraction of total billings, high audit quality seems assured. Under these conditions, any potential gain to an auditor from performing a shoddy audit, much less from participating in a client's fraud, would be vastly outweighed by the diminution in value to the auditor's reputation.¹³³

Interestingly, even though companies can (and do) audit themselves, they can justify the expense of hiring outside auditors to en-

¹²⁹ Eisenberg & Macey, *supra* note 127, at 266.

¹³⁰ *See id.*

¹³¹ Macey & Sale, *supra* note 13, at 1168 (quoting *Financial Reporting Quality: Implications of Accounting, Research: Submission to the (Canadian) S. Standing Comm. on Banking, Trade and Commerce* (2002) (statement of Daniel B. Thornton)).

¹³² *See* Eisenberg & Macey, *supra* note 127, at 266. Independence is traditionally measured by the percentage of an audit firm's billings that are derived from a particular client. *See* Macey & Sale, *supra* note 13, at 1176. For example, Andersen was said to be independent of Enron because Andersen had 2300 other audit clients, and Enron accounted for only about one percent of Andersen's total revenue from auditing (Andersen's revenues from Enron were reportedly \$100 million in 2001 as compared to \$9.34 billion in total audit revenues). *Id.* at 1176 & n.33. Of course, Andersen's independence as a firm did not extend to the partners responsible for doing the actual audit work for Enron. *See id.* at 1170.

¹³³ Eisenberg & Macey, *supra* note 127, at 267.

hance their financial reputation and credibility with a wide range of current and prospective claimants on their cash flows—including investors, suppliers, customers, and prospective employees. Under this reputational model, companies need independent audits to attract outside capital. The auditors performing these audits would be expected to quit an engagement before permitting a client to issue inaccurate or fraudulent financial statements. Thus, hiring a truly independent auditor under these conditions allowed companies, even those that lacked reputations of honesty and probity, to credibly signal the veracity of their reported financial results.¹³⁴

The notion was that accounting firms that dismissed an audit client would lose only that client. But this loss probably would be more than offset as the accounting firm likely would gain new clients by virtue of the enhancement in the accounting firm's reputation that followed from firing the client. This theory, which I have dubbed the "law and economics 101" approach to auditing, reflects the view that, even though companies can and do impose their own financial controls and audit themselves, they hire outside auditors to capitalize on the audit firm's reputation for probity. Under this theory, hiring an auditor allows client companies to "rent" the reputation of the accounting firm, which rents its reputation for care, honesty, and integrity out to its clients.

Unfortunately, this reputational theory of auditors' services no longer has much, if any, explanatory power. In fact, the accounting industry is no longer characterized by robust competition, and investors do not trust the numbers vetted by accounting firms.¹³⁵ Part of the explanation for this change is that there are no detectable, statistically significant distinctions among the big accounting firms with respect to quality.¹³⁶ Rather, the accounting firms all perform about the same, and there simply is no way for a company to distinguish itself for

¹³⁴ See Macey & Sale, *supra* note 13, at 1173. Being fired by an accounting firm has serious implications for the client. The resignation of an auditor sends a very powerful negative signal to the capital markets and can have dire consequences not only for the firm whose auditor resigns but also for the managers of the firm. See, e.g., Martin Fackler, *Drawing a Line: Unlikely Team Sets Japanese Banking on Road to Reform*, WALL ST. J., Aug. 6, 2003, at A1 (describing how the auditors' refusals to sign off on financial projections of a large Japanese bank caused a crisis that forced the bank to seek a \$17 billion government bailout and put the financial institution under government control).

¹³⁵ According to a 2002 Gallup poll, "70% of U.S. investors stated that business accounting issues were hurting the investment climate 'a lot.'" Paul Atkins, Comm'r, Sec. & Exch. Comm'n, Remarks at the Federalist Society 20th Annual Convention (Nov. 14, 2002), available at <http://www.sec.gov/news/speech/spch111402psa.htm>. At the same time, investors "trust" accountants just as much as they trust corporate executives, lawyers, and even politicians. *Id.*

¹³⁶ See Eisenberg & Macey, *supra* note 127, at 277.

probity and honesty in its accounting standards through its selection of auditors—contrary to the assumptions of economic theory.¹³⁷

Many explanations for the decline in audit quality have been offered.¹³⁸ Relevant to this analysis are the SEC rules that made outside

¹³⁷ See *id.* at 290–92.

¹³⁸ Explanations include: (a) The demise in civil liability and changes in organizational form resulted in diminished incentives for accounting firms to monitor themselves. The shift of organizational form from the general partnership form to the limited liability partnership form reduced the threat of liability faced by audit firm partners not directly involved in auditing a particular client. This, in turn, may have resulted in a diminution in the incentives of accounting firm partners to monitor the performance of their colleagues. See Macey & Sale, *supra* note 13, at 1170–71. The removal of aider-and-abettor liability also reduced audit partners' incentives to monitor one another. See *Cent. Bank of Denver v. First Interstate Bank of Denver*, 511 U.S. 164, 176–77 (1994) (holding that Section 10(b) of the Securities Exchange Act of 1934 and SEC Rule 10b-5 prohibit only “the making of a material misstatement (or omission) or the commission of a manipulative act” and do not prohibit the aiding and abetting of such acts). This decision was thought to have substantially alleviated the legal risks to outside advisors such as auditors and lawyers. This reduction in incentives was exacerbated in 1995 by passage of the Private Securities Litigation Reform Act (PSLRA). Pub. L. No. 104-67, 109 Stat. 737 (codified at 15 U.S.C. § 78 (1998)). The PSLRA established new rules of pleading that require plaintiffs' complaints to “state with particularity all facts” that form the basis of the alleged misstatement and give rise “to a strong inference that the defendant acted with the required state of mind” when making a misstatement or omission in financial reporting. *Id.* § 21D(b)(1)–(2). The PSLRA also delayed the beginning of discovery until after a court has decided whether to allow the case to go forward on the basis of the heightened pleading standards. *Id.* § 21D(b)(3). Prior to passage of the PSLRA, plaintiffs' attorneys could begin to gather documents and interview witnesses as soon as their complaint was filed. The PSLRA also sharply limited the doctrine of “joint and several liability,” which insures that victims can recover full damages even if one or more of the parties to the fraud cannot pay. Under the PSLRA, those whose reckless misconduct contributes to the fraud can be held responsible for only their proportionate share of victims' losses. See *id.* § 201(a)(g)(2). As a result, when the primary perpetrator of the fraud is bankrupt, investors cannot fully recover their losses from other entities, such as accounting firms.

(b) Changes in the complexity of financial transactions, which made financial reporting more difficult, also played a role. See Michael Hill, *Crossing the Ethical Divide*, THE BALTIMORE SUN (Feb. 10, 2012), http://articles.baltimoresun.com/2002-02-10/topic/0202090331_1_business-ethics-business-students-complexity (quoting economic historian Louis Galambos, who did not “think that the increasing complexity of financial transactions, the complexity of the instruments that can be used in financial transactions, . . . changed the environment” and led to more opportunities for breaking the law and winding up in prison). Auditing became more complex as new and more sophisticated methods of financing proliferated and as the audit rules themselves became more technical and complex. Cf. *Structured Finance*, SULLIVAN & CROMWELL LLP, <http://www.sullcrom.com/practices/detail.aspx?service=71> (last visited Jan. 20, 2013) (discussing the “the increased sophistication and complexity of many securitization transaction”). As a consequence, audit firms engaged by large public companies found that the “audit engagement teams” they assigned to perform audits had to spend increasingly large percentages of their time performing audit services for that client.

(c) The provision of consulting services by accounting firms upset the traditional balance of power between issuers and auditors and contributed to the capture of accounting firms by their clients. When accounting firms also provide consulting services, they might be tempted to use auditing work either as a loss leader or “as a mechanism for ‘opening the door’ with a client for the purpose of pitching their (higher margin) consulting services.” Macey & Sale, *supra* note 13, at 1178. Providing consulting services further erodes auditor

audits compulsory for firms¹³⁹ and required that such audits be carried out by auditors deemed by the SEC to be independent of management.¹⁴⁰ The SEC's regulations have effectively cartelized the accounting industry by requiring that large, publicly held corporations be audited by accounting firms that obtain only a small proportion of their revenues from any one client. This, in turn, means that large public companies can only be audited by very large accounting firms. This has led to the massive consolidation that the accounting industry has experienced in recent decades.¹⁴¹

The SEC's long-standing notion about what constitutes "auditor independence" has contributed significantly to the decline in the quality of the auditor-client relationship. Enron provides a useful example of the problem.

For regulatory purposes, Arthur Andersen was said to be independent of Enron because Enron accounted for less than one percent of Arthur Andersen's billings, but Enron appears to have accounted for all of the billings of the lead partner assigned to the Enron audit and for several members of his team. Worse, Arthur Andersen management in Chicago appears to have relied exclusively on its captured audit team not only for its information about the client, but also for how to report the financial information provided by the client. Unfortunately, although Andersen undoubtedly represented an extreme

independence by shifting the balance of power away from the auditor and in the direction of the audit client when auditors are discussing audit work and retention issues. Worse, consulting services provide a means by which audit clients can reward auditors for succumbing to the client's wishes about what accounting treatment should be used to report novel or complex transactions and business practices. *Id.* When auditors only offer clients audit services, the client's only option is to fire the auditor if the client does not think that the auditor is being sufficiently aggressive or compliant. But when the accountants also are peddling consulting services, the client can employ a "carrot and stick" strategy that rewards the accounting firm for being compliant and punishes the firm for being inflexible. This pressure is particularly acute in an environment in which the firm is the only client of the engagement partner from the accounting firm that is performing the audit, since a partner's inability to procure lucrative consulting work would be reflected in salary, promotion, and bonuses. As John Coffee has observed, it is difficult for an audit client to fire its auditor because such dismissals invite "potential public embarrassment, public disclosure of the reasons for the auditor's dismissal or resignation, and potential SEC intervention." John C. Coffee, Jr., *Understanding Enron: "It's About the Gatekeepers, Stupid,"* 57 *Bus. L.* 1403, 1411-12 (2002) (footnote omitted). But when a company is both an audit client as well as a consulting client of the accounting firm, "the client can then easily terminate the auditor as a consultant, or reduce its use of the firm's consulting services, in retaliation for the auditor's intransigence." Macey & Sale, *supra* note 13, at 1179 (quoting Coffee, *supra*, at 1412). When the audit client terminates the high margin consulting services and retains only the low margin auditing services, there is no need to make any public disclosure. This means that there is no risk that firing the auditor from a consulting engagement will provoke heightened scrutiny from investors, the SEC, or plaintiffs' class action law firms.

¹³⁹ See Macey & Sale, *supra* note 13, at 1173 (outlining independent audit requirements under the federal securities laws).

¹⁴⁰ Regulation S-X, 17 C.F.R. § 210.1-02 (2012) (defining auditor independence).

¹⁴¹ See Macey & Sale, *supra* note 13, at 1176-77.

example of an auditing firm losing its internal controls, the general contours of the auditor-client relationship that [characterized] Andersen and Enron are common.¹⁴² The nature of this relationship suggests that investors have good reason to worry about the quality of the financial reporting provided by the national accounting firms, even when the SEC considers such firms to be “independent.”

Thus, the role of accounting firms in capital markets and corporate governance is eerily similar to the role of credit rating agencies. What began as a subtle, reputation-based, highly efficient relationship has evolved into a relationship driven by regulatory requirements rather than genuine, market-driven demand. Specifically, where companies used to hire auditors to provide an independent, credible verification of their reported financial results, companies now hire them out of regulatory necessity. In both cases, rules emerged that transformed the once-voluntary relationship between companies and accountants into a compulsory relationship. Once the core purpose of the engagement with auditors became regulatory compliance rather than the assurance of financial reporting accuracy, the nature of the relationship changed. This shift, coupled with the auditor independence rule, which cartelized the accounting industry, and coupled with the removal of personal liability for accounting errors, had the cumulative effect, as Professor Eisenberg and I previously have observed,¹⁴³ of eliminating any quality distinctions that might once have existed among the major accounting firms that audit large public companies. Absent the ability to make such quality distinctions among auditors, issuers must select auditors on the basis of other criteria, such as cost and malleability.

D. Making Internal Risk Modeling Mandatory

No private sector innovation has captured the regulatory imagination more than the use of internal risk assessments by financial institutions. In the late 1980s, following the stock market crash of 1987, financial institutions—particularly the largest and most sophisticated and complex banking and financial services firms—began to utilize state-of-the-art financial mathematics to measure and control their firms’ financial risk.¹⁴⁴ The methodology for doing this involves the utilization of a Value-at-Risk (VaR) model or similar algorithm, which

¹⁴² *Id.* at 1169–70; see Jonathan R. Macey, *Efficient Capital Markets, Corporate Disclosure, and Enron*, 89 CORNELL L. REV. 394, 409–10 (2004); accord Coffee, *supra* note 138, at 1415–16 (“Auditing firms have always known that an individual partner could be dominated by a large client and might defer excessively to such a client in a manner that could inflict liability on the firm.”).

¹⁴³ Eisenberg & Macey, *supra* note 127, at 297–99.

¹⁴⁴ See PHILIPPE JORION, *VALUE AT RISK: THE NEW BENCHMARK FOR MANAGING FINANCIAL RISK* 21–22 (2d ed. 2001).

measures the maximum loss that a financial company might experience under various sets of assumptions.¹⁴⁵

VaR models generate risk measures on the specific portfolios of financial assets that financial institutions hold or may be considering. Starting with a particular portfolio, and using various measures of probability and time horizons, a portfolio's VaR is the measure of the probability that the actual (marked-to-market rather than accounting) loss on the measured portfolio during the given time horizon will exceed a particular threshold value.¹⁴⁶ Thus, for example, assigning to a particular portfolio of stocks a one-day 98.5% VaR of \$100 million means that the financial institution assigning this VaR believes that there is a 1.5% chance that the portfolio will fall in value by more than \$100 million over a one-day period.

Following the financial crisis of 1987, VaR models became widely used in measuring risk, in implementing financial controls, and in determining appropriate levels of capital. Stress testing is used as part of VaR calculations to measure the stability of a particular institution's balance sheet.¹⁴⁷ Stress testing involves measuring the ability of a financial institution to withstand pressures in excess of normal operational levels in order to ascertain the point at which the entity will fail.¹⁴⁸ Variations on the VaR modeling process such as "tail value at risk" (TVaR, also known as tail conditional expectation) permit firms to measure the severity of possible failures as well as the probability that failure will occur.¹⁴⁹

Regulators quickly incorporated VaR models into various regulatory frameworks for financial institutions. Beginning in 1997, the SEC pushed investment banks to provide VaR information in the notes to their financial statements in its ruling requiring U.S. public corporations to "disclose quantitative information about the risk" of their derivatives activity.¹⁵⁰ Major banks and dealers implemented the rule by presenting VaR models in their financial statements.¹⁵¹

Even more significantly, the Basel II capital guidelines, which would, if adopted, dictate the capital requirements for virtually every bank in the world, have adopted VaR throughout the regulations. VaR is the preferred measure of market risk. Significantly, the Basel

¹⁴⁵ See *id.*

¹⁴⁶ See *id.* at 24–25.

¹⁴⁷ See Tanya Styblo Beder, *VAR: Seductive but Dangerous*, FIN. ANALYSTS J., Sept.–Oct. 1995, at 12, 23 (discussing how VaR models should be supplemented with stress testing and other checks).

¹⁴⁸ See 12 U.S.C. § 5365(i) (2006).

¹⁴⁹ For a comprehensive explanation of VaR, see generally JORION, *supra* note 144; Darrell Duffie & Jun Pan, *An Overview of Value-at-Risk*, 4 J. DERIVATIVES 7 (1997).

¹⁵⁰ See JORION, *supra* note 144, at 47–48.

¹⁵¹ *Id.*

capital guidelines permit VaR and other so-called “internal ratings-based” approaches to evaluate credit risk, thus permitting banks to rely on their own measures of a counterparty’s risk.¹⁵² These guidelines also envision that banks can effectively determine their own regulatory capital requirements first by creating, and then adjusting, their own internal models.¹⁵³ Under the version of the Basel II capital guidelines adopted in the United States by various federal regulators, including the Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Board), the Federal Deposit Insurance Corporation (FDIC), and the (now abolished) Office of Thrift Supervision (OTS), a risk-based capital adequacy framework requires certain banks, bank holding companies, and savings and loan associations (S&Ls) to “use an internal ratings-based approach to calculate regulatory credit risk capital requirements and advanced measurement approaches to calculate regulatory operational risk capital requirements.”¹⁵⁴

Interestingly, regulators fully understand that the use of financial institutions’ own internal risk assessment tools will occur in an environment in which banks’ models are constantly evolving.¹⁵⁵ Unfortunately, the regulators do not seem to have grasped the notion, central to the analysis in this Article, that banks’ incentives regarding how to utilize a market process such as an internal risk assessment tool change when that process becomes incorporated into regulation.¹⁵⁶

Internal risk assessment tools are particularly subject to distortion by regulatory co-option.¹⁵⁷ Absent any regulatory overlay, internal risk assessment tools are useful for banks to see what sorts of potential problems they are facing. As soon as internal risk assessment tools become internalized into regulation, the consequences of using these tools change dramatically. Regulators and banks, after all, want to use internal risk assessments in order to calculate the amount of capital that banks must maintain to offset particular assets. Because capital is

¹⁵² See French et al., *supra* note 4; see also Risk-Based Capital Standards: Advanced Capital Adequacy Framework—Basel II, 72 Fed. Reg. 69,288, 69,289, 69,291–92, 69,338 (Dec. 7, 2007) (adopting the “internal ratings-based” approach to credit risk based on results of the Basel II Accord).

¹⁵³ See *id.* at 69,294; see also *supra* notes 3–4 and accompanying text.

¹⁵⁴ Risk-Based Capital Standards: Advanced Capital Adequacy Framework—Basel II, 72 Fed. Reg. at 69,288.

¹⁵⁵ *Id.* at 69,291 (“Because bank risk management practices are both continually evolving and subject to uncertainty, the framework should be viewed as an effort to improve the risk sensitivity of the risk-based capital requirements for banks, rather than as an effort to produce a statistically precise measurement of risk.”).

¹⁵⁶ PARTNOY, *supra* note 13, at 262–63.

¹⁵⁷ See Beder, *supra* note 147, at 12 (showing how VaR calculations are “extremely dependent on parameters, data, assumptions, and methodology”—i.e., different methods of calculating VaRs can yield significantly different results—and observing that VaR calculations “are not sufficient to control risk”).

very expensive for firms relative to debt,¹⁵⁸ once internal risk assessments become incorporated into regulation, the use of such assessments can significantly impact the costs of financial institutions. Banks understand that once internal risk assessments can be used to justify reserve capital requirements, they will have incentives to adjust their models, and to modify the way that their models are used, in order to mitigate the costs of using these models.

Besides the odd fact that regulators do not seem to realize that their regulations might actually have an influence on the development of banks' internal risk assessment tools, a second striking thing about the incorporation of banks' internal risk assessment processes into the capital adequacy rules is the amount of trust that the regulators apparently have in the banks.

The regulators understand that "a system is only as good as the inputs that go into it."¹⁵⁹ They also assume that financial institutions permitted to use their own internal risk assessments to measure risk will be able "to measure the key statistical drivers of credit risk."¹⁶⁰ Strangely, though, there does not appear to be any theoretical or statistical basis for assuming that banks can do this, particularly in the absence of independent oversight.¹⁶¹ Moreover, there is no generally accepted paradigm or protocol for determining which of the myriad technical approaches to internal risk assessment represents best practices or even acceptable industry standards. Whatever banks come up with themselves appears to be fine with the regulators. As one regulator observed, "the Basel Committee clearly recognizes that there is more than one way to [measure credit risk]."¹⁶² As such, the applicable capital rules should "provide banks with the flexibility to rely on data derived from experience, or from external sources, as long as the bank can demonstrate the relevance of the external data to its own exposures."¹⁶³

¹⁵⁸ See *supra* note 54.

¹⁵⁹ Rutledge, *supra* note 3.

¹⁶⁰ *Id.*

¹⁶¹ See Rachel Wolcott, *Beyond the Numbers: Do Banks Manage Risk?*, REUTERS (June 14, 2012), <http://blogs.reuters.com/financial-regulatory-forum/2012/06/14/beyond-the-numbers-do-banks-manage-risk/> (observing that "[i]t is a myth that banks are in possession of fancy gadgetry that allows them to measure risk on a minute-by-minute basis from a specialised risk-control tower and react to it effectively, thus averting catastrophe"); see also István Magas, *Financial Innovation: Regulator's Nightmare*, 2 INT'L REL. Q. 1, 2 (2011), available at http://www.southeast-europe.org/pdf/07/DKE_07_A_V_Magas-Istvan.pdf ("When the bulk of a company's assets were physical and its markets were relatively stable, valuation was more straightforward. Now growing proportions of a firm's assets—brands, ideas, human capital—are intangible and often hard to identify, let alone value. . . . This new, very innovative partly IT-related, complex market development has increased the difficulties of assessing risk and value, especially in a global context.").

¹⁶² Rutledge, *supra* note 3.

¹⁶³ *Id.*

Investors have a strong incentive in accurately measuring the risks of the banks in which they invest. And properly motivated and incentivized bankers have an incentive to measure risk accurately in order to improve loan performance by avoiding lemons and identifying cherries in loan applications and other investments. On the other hand, the necessity of disclosing such risk measurements to powerful and potentially intrusive regulators distorts this incentive and may provide incentives for banks to understate the levels of risk faced.

The well-publicized billion-dollar loss suffered in early 2012 by JPMorgan provides an illuminating example of the potential results of a financial institution deriving its own VaR model that qualifies as sufficient for regulatory purposes.¹⁶⁴ CEO Jamie Dimon acknowledged, while announcing JPMorgan's losses, that the bank had altered its VaR model for its Chief Investment Office so that potential losses calculated by the VaR were approximately halved, from \$129 million to \$67 million. The reasons for this change in the VaR model "appear certain to be at the center of regulatory and shareholder inquiries into the losses."¹⁶⁵ Yet, JPMorgan may not have disobeyed existing regulations. The SEC requires that financial institutions disclose changes in their risk models.¹⁶⁶ However, the institutions do not need to disclose

¹⁶⁴ The losses, originally announced on May 10, 2012, stemmed from JPMorgan's Chief Investment Office (CIO). The media initially reported in April 2012 on a trader in London named Bruno Iksil, known to many as the "London Whale." Stephanie Ruhle et al., *JPMorgan Trader's Positions Said to Distort Credit Indexes*, BLOOMBERG (Apr. 6, 2012, 10:43 AM), <http://www.bloomberg.com/news/2012-04-05/jpmorgan-trader-iksil-s-heft-is-said-to-distort-credit-indexes.html> (discussing Bruno Iksil, the trader involved in the credit-derivative indexes). Iksil, who specialized in credit-derivative indexes, and the CIO built up an extremely complicated, high-stakes bet over a period of years. According to the *New York Times*, "[i]n its simplest form, . . . the complex position assembled by the bank included a bullish bet on an index of investment-grade corporate debt, later paired with a bearish bet in high-yield securities, achieved by selling insurance contracts known as credit-default swaps." Nelson D. Schwartz & Jessica Silver-Greenberg, *JPMorgan's Trading Loss Is Said to Rise at Least 50%*, DEALB%K (May 16, 2012, 9:14 PM), <http://dealbook.nytimes.com/2012/05/16/jpmorgans-trading-loss-is-said-to-rise-at-least-50/>. A "big move" in the interest rate spread between risk-free government bonds and investment grade securities, paired with a lack of "equally large moves in the price of the insurance on the high yield bonds," caused the bet to lead to huge losses. *Id.* Total losses could eventually total \$9 billion. See Jessica Silver-Greenberg & Susanne Craig, *JPMorgan Trading Loss May Reach \$9 Billion*, DEALB%K (June 28, 2012, 2:30 AM), <http://dealbook.nytimes.com/2012/05/16/jpmorgans-trading-loss-is-said-to-rise-at-least-50/>; see also Maureen Farrell, *JPMorgan's Losses Keep Adding Up*, CNNMONEY (June 12, 2012, 11:24 AM), <http://money.cnn.com/2012/06/12/investing/jpmorgan-loss/index.htm>; Jessica Silver-Greenberg & Peter Eavis, *JPMorgan Discloses \$2 Billion in Trading Losses*, DEALB%K (May 10, 2012, 10:11 PM), <http://dealbook.nytimes.com/2012/05/10/jpmorgan-discloses-significant-losses-in-trading-group/> (discussing JPMorgan's failed hedging strategy and its potential effect on regulatory reforms).

¹⁶⁵ David Henry, *Analysis: JPMorgan to Be Haunted by Change in Risk Model*, REUTERS (May 18, 2012, 5:13 PM), <http://www.reuters.com/article/2012/05/18/us-jpmorgan-risk-idUSBRE84H15120120518>.

¹⁶⁶ SEC Regulation S-K requires disclosure "[i]f registrants change disclosure alternatives or key model characteristics, assumptions, and parameters used in providing quantita-

this information until the end of the fiscal year.¹⁶⁷ JPMorgan's initial first quarter report on April 13 revealed the \$67 million risk but did not note that the VaR had changed.¹⁶⁸ Dimon attributed the change in models to the natural experimental process: "There are constant changes and updates to models—always trying to get them better than they were before. . . . That is an ongoing procedure."¹⁶⁹ Many have expressed doubt regarding Dimon's statements, noting that, while banks do alter their VaR models, rarely do the changes produce such different results.¹⁷⁰

The JPMorgan case has resulted in congressional investigations of the bank's losses and its regulators.¹⁷¹ Furthermore, the already tenuous credibility of VaR models has come under further scrutiny. The losses show the downside of co-opting the VaRs for regulatory purposes. Ironically, JPMorgan led the development of VaR models in the early 1990s.¹⁷² The financial crisis, however, showed that many of the VaR models used faulty historical data and assumptions.¹⁷³ The requirement to disclose changes to VaR models solely at the end of the fiscal year seemingly created this loophole through which JPMorgan was able to change its VaR model for the CIO, but not in other offices, and accomplish its highly risky actions.¹⁷⁴ The Basel Committee, as noted above, acknowledged multiple ways to measure risk and wished to "provide banks with the flexibility to rely on data derived

tive information about market risk . . . and if the effects of any such change is material." 17 C.F.R. § 229.305(a)(4) (2012).

¹⁶⁷ "Registrants shall provide, in their reporting currency, quantitative information about market risk as of the end of the latest fiscal year" *Id.* § 229.305(a)(1).

¹⁶⁸ Henry, *supra* note 165.

¹⁶⁹ *Id.*

¹⁷⁰ *Id.* ("Banks sometimes refine their value-at-risk, or VaR, models but those commonplace changes do not by themselves produce such dramatically different results, said Christopher Finger, one of the founders of RiskMetrics Group, which pioneered VaR models and is now a unit of MSCI Inc.")

¹⁷¹ See Scott Patterson, *Comptroller Sees Risk-Management Breakdown at J.P. Morgan*, WALL ST. J. (June 5, 2012, 5:15 PM), <http://online.wsj.com/article/SB10001424052702303830204577448773700425452.html> ("The OCC has been taking heat from members of Congress for failing to pick up on J.P. Morgan's trading activities quickly enough."); Ben Protes, *Regulator Concedes Oversight Lapse in JPMorgan Loss*, DEALBOOK (June 6, 2012, 8:51 PM), <http://dealbook.nytimes.com/2012/06/06/battle-lines-over-volcker-rule-are-revisited-at-jpmorgan-hearing/> (discussing the Senate Banking Committee hearing regarding JPMorgan's loss, where the Comptroller of the Currency "faced the brunt of the scrutiny," and noting previous hearings where officials from JPMorgan's other regulators, the CFTC and SEC, testified).

¹⁷² Tracy Alloway, *JPMorgan Loss Stokes Risk Model Fears*, FIN. TIMES (May 13, 2012, 6:29 PM), <http://www.ft.com/intl/cms/s/0/1293de8c-9ba2-11e1-b03e-00144feabdc0.html#axzz26XuEpH5x>.

¹⁷³ *Id.*; see Henry, *supra* note 165.

¹⁷⁴ The VaR was only changed for the CIO; the other divisions of the bank continued to use more "conservative" models. Henry, *supra* note 165.

from experience.”¹⁷⁵ By making VaRs part of the financial regulatory apparatus but allowing banks to continue to alter the models and only disclose these changes at set intervals, financial regulators appear to have created the conditions under which JPMorgan seemingly was able to alter its own VaR models to lessen the apparent risk in what was actually an extremely risky series of actions.

In other words, banks are now permitted to design the very examinations that will be used to evaluate their financial condition. Remarks on risk-based capital by William Rutledge, Executive Vice President of the Federal Reserve Bank of New York, illustrate the extent to which the capital guidelines relied on undeveloped and untested models that depended on data that was not yet even available at the time:

Given our desire for Basel II to be consistent with the best existing and **emerging** risk measurement and management practices, getting specific feedback from the industry is particularly critical. . . .

Time and effort has also been invested in developing richer and more meaningful data on past, and likely future, credit performance—data that are needed to fuel management information and control systems for senior management use. I expect that much of the cost to banks of adopting the advanced approaches of Basel II will come from pushing ahead on precisely these types of initiatives.

The Basel standards outline the data history [that] banks will need in order to use the IRB (Internal Risk Based) approach. The [Basel] Committee recognizes that banks may not currently have all of the required information on hand. For this reason we have continued to engage market participants in a dialogue on this issue.¹⁷⁶

As the credit crisis approached, regulators, under the so-called “market risk amendment” to the original Basel Accord,¹⁷⁷ increasingly were allowing the world’s largest financial institutions, primarily those with large market risk positions, to use their own internal estimates of the risks associated with their activities in determining what their own capital requirements would be for regulatory purposes.

Thus, financial institutions subject to minimum capital requirements were not merely allowed to determine for themselves whether they were in compliance with such requirements; they also were allowed to design for themselves the test that they would use for making this determination. As Professor Partnoy observed, financial institu-

¹⁷⁵ Rutledge, *supra* note 3.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*; BASEL COMMITTEE ON BANKING SUPERVISION, OVERVIEW OF THE AMENDMENT TO THE CAPITAL ACCORD TO INCORPORATE MARKET RISKS 2 (1996), available at <http://www.bis.org/publ/bcb23.pdf>.

tions used faulty VaR models due to legal rules. Regulators required firms to use and to disclose their VaR measures but, in doing so, they were “inadvertently encouraging firms to misstate their own risks.”¹⁷⁸

Professor Partnoy suggests that there was a problem with VaR models themselves, calling them “faulty” on the grounds that “all these models really did was compare historical measures of risk and return.”¹⁷⁹ This observation, while true, is describing the first generation of VaR models developed in the mid- to late-1990s. The models, such as the ones used by failed firms including Bankers Trust and Long Term Capital Management, were what regulators ultimately assimilated into their own regulations.¹⁸⁰ Once these models were adopted by regulators, however, they became ossified. If these models had not been incorporated into regulation, the companies using them would have had strong incentives to refine and improve them in order to make them more accurate and useful as internal evaluation mechanisms.

Regulatory assimilation distorted the incentives of the firms who developed VaR models. The process of assimilation subverted the integrity of the very algorithms being co-opted. Unfortunately, like credit ratings, internal risk models, which were once a promising means for banks to improve their internal controls, have become largely discredited. For example, Sheila Bair, the former chairman of the FDIC, observed that “in the years preceding the financial crisis, under the advanced approaches of Basel II, regulators allowed the largest banks to use their own internal models to set individual risk-based capital requirements.”¹⁸¹ Regulators permitted this on the premise that “the largest banks didn’t need as much capital as smaller banks due to their sophisticated internal risk models and diversification.”¹⁸² According to Ms. Bair, “[t]he crisis demonstrated the fallacy of this thinking.”¹⁸³

CONCLUSION

In this paper, the term regulation by assimilation is used to describe the process by which internal norms, rules, or practices of private firms are assimilated into regulation. The descriptive purpose of this Article has been to point out the large role played by regulatory

178 PARTNOY, *supra* note 13, at 262.

179 *Id.*

180 *Id.* at 261–62

181 Sarah Borchersen-Keto, *FDIC Moves on Dodd-Frank Capital Requirements*, WOLTERS KLUWER LAW & BUSINESS: DODD-FRANK NEWS CENTER (Dec. 14, 2010), <http://financialreform.wolterskluwerlb.com/2010/12/fdic-moves-on-dodd-frank-capital-requirements.html>.

182 *Id.*

183 *Id.*

assimilation in the regulation of the financial markets. The normative purpose has been to show that the very process of assimilation tends to undermine the efficacy of the very mechanisms and institutions being co-opted.

In recent decades, regulators have come to recognize the difference between mandatory and enabling rules and, in some cases, particularly in the corporate context, they have begun to consider with care the costs and benefits of making a particular legal rule mandatory or enabling.¹⁸⁴ At the same time, another far less heralded but similarly important revolution in regulatory approach to financial markets was taking place. This second, much quieter regulatory sea change consisted of the forced assimilation of market-based mechanisms and institutions into regulation. This paper has examined four such assimilations. These insidious assimilations of credit ratings, fairness opinions, internal audits, and internal risk assessments into various regulations have had a corrupting influence on these mechanisms and institutions. Each of the market-generated devices has become less useful after being conscripted for use by regulators.

The diminution in the value of each of these market mechanisms was an entirely unforeseen consequence of their co-option by regulators. In fact, and rather ironically, the regulators effectuating this assimilation thought that they were harnessing the efficiency of the market in the service of more effective and enlightened regulation.

But the takeaway point of this Article is not necessarily that regulators should avoid co-opting market mechanisms into regulations. Such a conclusion would be premature because it has yet to be considered whether a more enlightened regulatory approach might work better. Such a regulatory approach will only begin when regulators recognize the fact that their efforts to co-opt market institutions into various regulatory frameworks risk distorting the very market processes that they wish to internalize into regulation. Though far from certain, it is at least conceivable that more carefully designed regulations that are sensitive to the risks of distorting the very market mechanisms being assimilated might avoid the problems identified in this Article.

¹⁸⁴ Cf. John C. Coffee, Jr., *The Mandatory/Enabling Balance in Corporate Law: An Essay on the Judicial Role*, 89 COLUM. L. REV. 1618, 1618–19 (1989) (discussing the “partly enabling, partly mandatory” character of corporate law); Jonathan R. Macey, *Corporate Law and Corporate Governance: A Contractual Perspective*, 18 J. CORP. L. 185, 211, *passim* (1993) (detailing the arguments for mandatory or enabling rules and arguing that “investors, capital markets, and society generally will be better off if policymakers take an enabling approach to corporate law”).