

DISCLOSURE'S FAILURE IN THE SUBPRIME MORTGAGE CRISIS¹

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I. INTRODUCTION

This article examines the “finance” part of the subprime mortgage crisis. In a separate article, I examined financial-market anomalies and obvious market protections that failed, seeking insight into the subprime mortgage crisis.² The crisis, I argued, can be attributed in large part to three causes: conflicts, complacency, and complexity.³ This article focuses on the third cause—complexity—and, in particular, on complexity's undermining of the disclosure paradigm of securities law, causing investors such as commercial and investment banks to lose many billions of dollars on securities backed by subprime mortgages.⁴

¹ This article is partly based on portions of Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1 [hereinafter, Schwarcz, *Disclosure Paradigm*], and Steven L. Schwarcz, *Protecting Financial Markets: Lessons from the Subprime Mortgage Meltdown*, 93 MINN. L. REV. (forthcoming 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1107444 [hereinafter Schwarcz, *Protecting Financial Markets*].

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² See Schwarcz, *Protecting Financial Markets*, *supra* note 1.

³ *Id.* at 33–35. Running throughout these causes is a fourth cause: cupidity, but greed is “so ingrained in human nature and so intertwined with the other categories that it adds little insight to view it as a separate category.” *Id.* at 34–35.

⁴ See, e.g., Jenny Anderson, *Wall St. Banks Confront a String of Write-Downs*, N.Y. TIMES, Feb. 19, 2008, at C1 (reporting that “major banks . . . have already written off more than \$120 billion of losses stemming from bad mortgage-related investments”); Daniel Gross et al., *How a Lack of Faith Pounded the Markets*, NEWSWEEK, Mar. 31, 2008, at 48 (reporting that Bear Stearns was worth \$20 billion in January 2007 and that JP Morgan agreed to buy Bear Stearns for \$236 billion in March 2008); *Wall Street Banks Slashing Workforces*, CHI. TRIB., Mar. 25, 2008, at C2 (reporting that “[t]he collapse of the subprime mortgage market last year and the ensuing credit contraction have saddled the world's largest financial institutions with at least \$200 billion

Most, if not all, of the risks giving rise to the collapse of the market for securities backed by subprime mortgages were disclosed,⁵ yet the disclosure was insufficient, in part because complexity made the risks very difficult to understand. The prospectus itself in a typical offering of these securities is, in my experience, hundreds of pages long.⁶ Thus, “a lot of institutional investors bought [the subprime mortgage-backed] securities substantially based on their ratings [without fully understanding what they bought], in part because the market has become so complex.”⁷

This article will explain why these risks were so difficult to understand, even to sophisticated institutional investors, and then will analyze how to address disclosure’s insufficiency. As groundwork for this explanation and analysis, the article next lays out some basic industry terminology.

of write-downs and losses”). These losses have been mostly from investments in securities backed by subprime mortgages and not from making subprime mortgage loans. *See* David Bogoslaw, *A Red Flag for Bank Liquidity*, BUS. WK., Mar. 17, 2008, http://www.businessweek.com/investor/content/mar2008/pi20080316_508940.htm (reporting that Bear Stearns’ “exposure to the toxic securities backed by subprime mortgages, such as collateralized debt obligations (CDOs), has hardly been unique”).

⁵ In certain pending lawsuits, plaintiffs argue that disclosure regarding the “quality of the [underlying mortgage] loans” was insufficient. Stephen J. Crimmins, Andrew J. Morris & Daniel T. Brown, *Subprime Mortgage Lending: Possible Securities Litigation Exposure*, SEC. REG. & LAW, Sept. 24, 2007. Thus,

plaintiffs [generally] appear to be focusing on disclosures relating to the quality of the loans, and adherence to procedures designed to ensure loan quality. Shareholders suing Accredited Home Lenders Holding Co. claim that it misrepresented that it was committed to originating “high-quality loans” and would “constantly track the factors that impact portfolio quality”; that it instead permitted “rampant overrides” of negative credit appraisals; and that it “manipulated” reserves for bad loans in violation of GAAP. A shareholder suit against Fremont General Corp. claims that it failed to disclose that it had “inadequate underwriting criteria,” “a large volume of poor quality loans,” and “unsatisfactory lending practices,” and that it marketed adjustable rate mortgages “to subprime borrowers in an unsafe and unsound manner” and “without adequately considering the borrower’s ability to repay.”

Id. (citations omitted).

⁶ The disclosure documents ordinarily consist of a prospectus and a prospectus supplement, each close to two-hundred pages long.

⁷ *Credit & Blame: How Rating Firms’ Calls Fueled Subprime Mess*, WALL ST. J., Aug. 15, 2007, at A1 (quoting a market observer). *See also* Alan S. Blinder, *Six Fingers of Blame in the Mortgage Mess*, N.Y. TIMES, Sept. 30, 2007, at BU4 (arguing that the securities backed by subprime mortgages “were probably too complex for anyone’s good”).

II. TERMINOLOGY

The issuance of securities backed by subprime mortgages constitutes a form of “securitization.”⁸ In a securitization transaction, rights to payment from income-producing financial assets—in our case, subprime mortgage loans—are transferred to a special-purpose vehicle, or “SPV” (sometimes called a special-purpose entity, or “SPE”).⁹ The SPV, directly or indirectly, issues securities to capital market investors and uses the proceeds to pay for the mortgage loans. The investors, who are repaid from collections of the mortgage loans, buy the securities based on their assessments of the value of those loans.¹⁰

In the securitizations involving subprime mortgages, the companies originating the mortgage loans were almost always different than the companies that (after purchasing those loans) created and transferred those loans to the SPVs.¹¹ For discussion purposes, this article will refer to all these companies collectively as “originators,” in contrast to “investors” who buy the securities issued by the SPVs.

Actual securitization transactions are extremely complex and often rely on multiple SPVs.¹² Furthermore, in order to integrate disparate disciplines such as bankruptcy, tax, securities law, commercial law, accounting, and finance, securitization transactions often appear to be highly convoluted.¹³

The securities issued in securitization transactions add to the complexity. Securities backed directly or indirectly by subprime mortgages “are customarily categorized as MBS, . . . CDO, or ABS CDO” securities.¹⁴

⁸ See Steven L. Schwarcz, *The Inherent Irrationality of Judgment Proofing*, 52 STAN. L. REV. 1, 6 (1999).

⁹ *Id.*

¹⁰ *Id.* For a more complete analysis of securitization, see STEVEN L. SCHWARCZ, STRUCTURED FINANCE: A GUIDE TO THE PRINCIPLES OF ASSET SECURITIZATION (3d ed. 2003 & supp.); Steven L. Schwarcz, *Securitization Post-Enron*, 25 CARDOZO L. REV. 1539, 1540–43 (2004) [hereinafter Schwarcz, *Securitization Post-Enron*]; Steven L. Schwarcz, *The Alchemy of Asset Securitization*, 1 STAN. J.L. BUS. & FIN. 133, 135–44 (1994).

¹¹ See Kurt Eggert, *Role of Securitization in Subprime Mortgage Market Turmoil*, CONG. Q., Apr. 17, 2007 (explaining that mortgage brokers and banks made the loans, and that investment banks generally bought those loans, created the SPVs, and transferred the loans to the SPVs).

¹² See, e.g., Claire A. Hill, *Securitization: A Low-Cost Sweetener for Lemons*, 74 WASH. U. L.Q. 1061, 1063 (1996).

¹³ See Schwarcz, *Disclosure Paradigm*, *supra* note 1, at 5 (illustrating a “simplified” schematic of a healthcare securitization conduit established by a leading investment firm, with the author’s counsel, in order to provide low-cost financing to hospitals).

¹⁴ Schwarcz, *Protecting Financial Markets*, *supra* note 1, at 4–5. There are arcane variations on the CDO categories, such as CDOs “squared” or “cubed,” but these go beyond this article’s analysis.

MBS means mortgage-backed securities, or securities whose payment derives principally or entirely from mortgage loans owned by the SPV. . . . CDO, or collateralized debt obligation, securities are backed by—and thus their payment derives principally or entirely from—a mixed pool of mortgage loans and/or other [income-generating assets] owned by an SPV.¹⁵

“ABS CDO securities, in contrast, are backed by a mixed pool” of MBS and other asset-backed securities owned by the SPV,¹⁶ and thus their payment derives principally or entirely from the underlying mortgage loans and/or other assets ultimately backing those securities.¹⁷

The classes, or tranches, of MBS, . . . CDO, and ABS CDO securities issued in these [securitization] transactions are typically ranked by seniority of payment priority. The highest priority class is called senior securities. In MBS . . . transactions, lower priority classes are called subordinated or junior securities. In CDO and ABS CDO transactions, lower priority classes are usually called mezzanine securities—with the lowest priority class, which has a residual claim against the SPV, being called the equity. The senior and many of the subordinated classes of these securities are more highly rated than the quality of the underlying mortgage loans. For example, senior securities issued in a CDO transaction are usually rated AAA even if the underlying [income-generating assets] consist of subprime mortgages, and senior securities issued in an ABS CDO transaction are usually rated AAA even if none of the MBS and ABS securities supporting the transaction are rated that high. This is accomplished by allocating cash collections from the receivables first to pay the senior classes and thereafter to pay more junior classes. In this way, the senior classes are highly over-collateralized to take into account the possibility, indeed likelihood, of delays and losses on collection.¹⁸

Before engaging in the analysis below, it is helpful to distinguish the scope of this symposium article from that of an earlier article examining disclosure’s insufficiency in the face of complexity.¹⁹ The earlier article examined disclosure’s insufficiency from the standpoint of investors in an originator’s securities, such as shares of stock. In contrast, this symposium article examines disclosure’s insufficiency from the standpoint of investors in an SPV’s securitized securities.

¹⁵ *Id.* at 4–5.

¹⁶ Securities backed by assets other than mortgage loans are typically referred to as asset-backed securities or ABS. *Id.* at 4.

¹⁷ *Id.* at 5.

¹⁸ *Id.* at 5–6.

¹⁹ That earlier article is Schwarcz, *Disclosure Paradigm*, *supra* note 1.

These different focuses lead to different potential solutions. For example, the earlier article proposes as a partial solution to disclosure's insufficiency that originators should mitigate any material conflicts of interest that create the risk that their management will structure transactions contrary to the interests of investors, at least in those transactions for which disclosure may be insufficient.²⁰ The reasoning of that article is that, "absent conflicts, investors should be able to rely on the business judgment of the originator's management," which has a fiduciary duty to those investors, in "setting up structured transactions for the originator's benefit."²¹ However, that solution is inapplicable to this symposium article because originators have no such duty to investors in an SPV's securities.

III. ANALYSIS

A. *Disclosure's Insufficiency*

In the subprime mortgage crisis, there is to date relatively little dispute that the disclosure documents describing the MBS, CDO, and ABS CDO securities and their risks generally complied with the federal securities laws.²² The complexity of the transactions, however, caused the disclosures to be insufficient, cutting into the very heart of federal securities regulation, whose "exclusive focus is on full disclosure."²³ The rationale for this focus is that investors are adequately protected if all relevant aspects of the securities being marketed are fully and fairly disclosed. The reasoning is that full disclosure provides investors with sufficient opportunity to evaluate the merits of an investment and fend for themselves. It is a basic tenet of federal securities regulation that investors' ability to make their own evaluations of available investments obviates any need for the more costly and time-consuming governmental merit analysis of the securities being offered.²⁴

There are two levels of reasoning that explain the insufficiency of disclosure in the subprime crisis. On an institutional level (most investors in MBS, CDO, and ABS CDO securities being institutional investors²⁵), some investors simply may

²⁰ *Id.*, at 30–37.

²¹ *Id.*, at 32.

²² *Cf. supra* note 5 and accompanying text (observing that most if not all of the risks giving rise to the collapse of the market for these securities were disclosed, though discussing several lawsuits alleging failure to disclose certain risks about the quality of the underlying mortgage loans).

²³ 2 THOMAS LEE HAZEN, *THE LAW OF SECURITIES REGULATION* § 8.1[1][B] (5th ed. 2005); *see also id.* § 1.2[3] (explaining that "[t]he focus on disclosure was based on the conclusion that sunlight is the best disinfectant").

²⁴ 1 THOMAS LEE HAZEN, *THE LAW OF SECURITIES REGULATION* § 1.2[3][A] (5th ed. 2005).

²⁵ *See* SEC Staff Report: *Enhancing Disclosure in the Mortgage-Backed Securities Markets* (Jan. 2003), <http://www.sec.gov/news/studies/mortgagebacked.htm> (reporting that investors in MBS are "overwhelmingly institutional").

not have the staffing to evaluate complex securitization transactions.²⁶ This begs the question whether institutional investors will hire securitization experts as needed to decipher complex deals. The evidence suggests they do not always do so,²⁷ and theory explains why. Although experts may be hired to the extent that their costs do not exceed the benefits gained from more fully understanding the complexity, at some level of complexity those costs will exceed, *or at least appear to exceed* any potential gain. This is because the cost of hiring experts is tangible, whereas the benefit gained from fully understanding complex transactions is intangible and harder to quantify. Managers attempting a cost-benefit analysis may well give greater weight to the tangible cost and less credence to any intangible benefit.²⁸ The more complex the transaction, the higher the costs, and thus the more likely it is that the cost-benefit balance will be out of equilibrium.

The second level of reasoning goes to agency costs stemming from a conflict between the interests of individual employees and the institutions for which they work.²⁹ In assessing the investment-worthiness of highly complex MBS, CDO, and ABS CDO securities, individuals sometimes take a shortcut, over-relying on the fact that these securities may be rated “investment grade” by rating agencies such as Standard & Poor’s and Moody’s³⁰ and not spending the time and effort needed to fully understand the hundreds of pages of disclosure for each investment.³¹

²⁶ In this context, some commentators have questioned whether some structures are getting so complex that they are incomprehensible. *See, e.g.*, David Barboza, *Complex El Paso Partnerships Puzzle Analysts*, N.Y. TIMES, July 23, 2002, at C1 (discussing that “one industry giant, the El Paso Corporation, is growing ever more reliant on deals [using off-balance sheet partnerships] so complex that securities experts call them incomprehensible”). That appears hyperbolic, however, since if humans create the structures then humans can decipher them. The problem, however, is that relatively few can do so and some structures may not even be able to be understood by any single person. *See, e.g.*, KARL R. POPPER & KONRAD LORENZ, *DIE ZUKUNFT IST OFFEN* 74, 75–76 (Franz Kreuzer ed., 1985) (arguing that some structures, like airplanes, contain so many ideas that they are not comprehensible to any one individual; hence they require collaboration).

²⁷ *See, e.g.*, Jeffrey N. Gordon, *What Enron Means for the Management and Control of the Modern Business Corporation: Some Initial Reflections*, 69 U. CHI. L. REV. 1233, 1238–39 (2002) (noting the failure of investors to draw proper conclusions from their lack of understanding).

²⁸ The difficulties associated with balancing tangible costs against intangible benefits have been examined extensively in the context of corporate information-system (“IS”) decision-making. *See, e.g.*, Edward Rivard & Kate Kaiser, *The Benefit of Quality IS*, DATAMATION, Jan. 15, 1989, at 53–58 (emphasizing the need to educate management, “especially conservative management, on the importance of intangible benefits”).

²⁹ *See* Schwarcz, *Protecting Financial Markets*, *supra* note 1, at 12.

³⁰ *See* Steven L. Schwarcz, *Private Ordering of Public Markets: The Rating Agency Paradox*, 2002 U. ILL. L. REV. 1, 6–8 (discussing ratings and the concept of “investment grade”).

³¹ *See supra* note 6 and accompanying text.

Over-reliance on ratings appears to have been endemic in the subprime mortgage crisis.³²

This over-reliance is not surprising, particularly where the type of investment securities are generally accepted in the marketplace, as were securities backed by subprime mortgages prior to the meltdown. Professors Healy and Palepu have found, for example, that investment-fund managers who believe a stock is overvalued, but nonetheless follow the crowd, will not be blamed if the stock ultimately crashes.³³ Moreover, the very complexity of securities backed by subprime mortgages makes it difficult to assess their suitability for investment, potentially seducing individuals into seeing what they are already inclined to believe—that these securities are creditworthy.³⁴ For these reasons, disclosure of the subprime mortgage securitizations, and by analogy, of other complex financing transactions, has inherent limitations.

B Addressing Disclosure's Insufficiency

There are at least three ways to respond to disclosure's insufficiency: to tolerate insufficient disclosure; to proscribe transactions for which disclosure is insufficient; or to require supplemental protections to minimize disclosure's insufficiencies. This article next examines each of these possible responses.

³² Aaron Lucchetti, *Moody's Weighs Warning Labels For Its Ratings—Firm Aims to Appease Regulators, Rehabilitate A Battered Reputation*, WALL ST. J., Feb. 5, 2008, at C1 (reporting that Moody's believes investors relied too much on its ratings).

³³ Paul M. Healy & Krishna G. Palepu, *The Fall of Enron*, 17 J. ECON. PERSP. 3, 19 (2003) (noting that nonindex fund managers are rewarded based on fund size and relative performance; fund manager who estimates a stock is overvalued but does not act on this analysis and “simply follows the crowd will not be rewarded for foreseeing the problems,” “but neither will [he] be blamed for a poor investment decision when the stock ultimately crashes, since [his peers] made the same mistake”).

³⁴ It is reported, for example, that King Croesus of Lydia wanted to make war on Cyrus, but was wary of doing so without heavenly sanction. After singling out the Delphic Oracle as the most reliable, the king's messengers “asked the practical question about the advisability of Croesus' going to war, and received the famous [and famously ambiguous] response that ‘Croesus by crossing the Halys would destroy a mighty kingdom.’” REV. T. DEMPSEY, *THE DELPHIC ORACLE: ITS EARLY HISTORY, INFLUENCE, AND FALL* 70 (1972). Croesus interpreted this to mean what he wanted to hear—that Cyrus would fall—but in fact the empire that fell was his own. *Id.* at 71; *see also id.* at 71, 107 (discussing the historical method of the oracles as sheltering ignorance behind a “studied ambiguity” and vagueness). This same method of response is said also to be used today by fortune tellers. *See* J. Barkley Rosser Jr., *Alternative Keynesian and Post Keynesian Perspectives on Uncertainty and Expectations*, 23 J. POST KEYNESIAN ECON. 545, 554–57 (2001) (arguing that uncertainty leads to self-fulfilling mistakes).

1. *Tolerating Insufficient Disclosure*

Under this response, disclosure would remain the sole paradigm for remedying the information asymmetry between originators and investors. This has been the historical response to complexity since, in an efficient market, it has been believed that stock prices virtually “instantaneously reflect all publicly available information relevant to the value of traded stocks.”³⁵ But complex securitization transactions can undermine this result—as the subprime mortgage crisis has well illustrated—because many securitization deals are *sui generis*, obviating creation of a thickly efficient market. Thus, Professors Gilson and Kraakman observe that an innovative investment contract, for example, would take the market more time to understand and reach price equilibration than, say, a change in Federal Reserve Board policy.³⁶ Furthermore, the efficient market hypothesis might not even apply to debt markets³⁷ and certainly should not apply to private debt markets.³⁸ The securities issued in securitization transactions are virtually always debt securities,³⁹ and many CDO and ABS CDO securities were issued in private placements.⁴⁰ It does not even appear that ABS CDO securities always had a secondary market for trading.

The other possible argument for tolerating insufficient disclosure is that—at least after the subprime mortgage crisis—originators engaging in complex transactions may find their share price discounted by investors.⁴¹ This is not,

³⁵ CHARLES R.T. O’KELLEY & ROBERT B. THOMPSON, *CORPORATIONS AND OTHER BUSINESS ASSOCIATIONS* 170–71 (3d ed. 1999) (referring to this belief as the “semi-strong” form of the efficient market hypothesis).

³⁶ Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549, 568, 585, 615–16 (1984).

³⁷ See Yedidia Z. Stern, *A General Model for Corporate Acquisition Law*, 26 J. CORP. L. 675, 709 (2001) (“[S]tudies show that the bond market is not efficient; and therefore, one cannot expect the market prices to compensate bondholders for the risks to which they are exposed.”); Morey W. McDaniel, *Bondholders and Stockholders*, 13 J. CORP. L. 205, 242 (1988) (“There is evidence that the market for corporate bonds is not very efficient. For many bond issues, it is not unusual to find infrequent trading activity and large spreads between bid and asked prices.”) (citations omitted).

³⁸ See *Camden Asset Mgmt., L.P. v. Sunbeam Corp.*, No. 99-8275-CIV, slip op. at 31–36 (S.D. Fla. July 3, 2001) (stating that privately placed Rule 144A-exempt securities, being thinly traded, do not have an efficient market).

³⁹ See Edward M. Iacobucci & Ralph A. Winter, *Asset Securitization and Asymmetric Information*, 34 J. LEGAL STUD. 161, 164 (2005) (explaining that the typical securitization transaction involves the issuance of debt or debt-like securities).

⁴⁰ See Jennifer Bethel & Allen Ferrell, *Policy Issues Raised by Structured Products*, at 12 (Harvard Law School John M. Olin Center for Law, Economics and Business, Discussion Paper 560, 2006), available at <http://lsr.nellco.org/harvard/olin/papers/560> (explaining that “collateralized debt obligations are now overwhelmingly privately placed”).

⁴¹ See Schwarcz, *Disclosure Paradigm*, *supra* note 1, at 20.

however, a long-term solution because investors have short memories. Once past financial crises recede in memory and investors are making money, investors always “go for the gold.”⁴² Furthermore, discounting share price based on complexity per se is inefficient since complexity sometimes is justified. Where investors do not or cannot differentiate between justifiable and fraudulent or excessive complexity, the market will discount in both cases—thereby driving out otherwise beneficial complexity.⁴³

For these reasons, it would be inexpedient to continue to tolerate disclosure as the sole paradigm for remedying the information asymmetry between originators and investors. The converse proposition, proscribing transactions for which disclosure would be insufficient, is equally problematic, as discussed below.

2. *Proscribing Transactions for Which Disclosure Would Be Insufficient*

If government proscribed or banned transactions for which the information asymmetry exceeds certain bounds, the most immediate consequence potentially would be to eliminate many, if not most, securitization transactions. From a societal standpoint, that result would be unfortunate. Securitization transactions are

widely used and accepted in the United States Often, these transactions are efficient means of obtaining funding for their participants while simultaneously achieving accounting, tax and regulatory benefits of various types [They] reflect the innovation for which the U.S. capital markets are known[,] . . . have many legitimate uses and comprise a significant part of our capital markets.⁴⁴

⁴² Larry Light, *Bondholder Beware: Value Subject to Change Without Notice*, BUS. WK., Mar. 29, 1993, at 34 (“Bondholders can—and will—fuss all they like. But the reality is, their options are limited: higher returns or better protection. Most investors will continue to go for the gold.”) (discussing, in the context of but several years after the “Marriott split,” that investors favor higher interest rates over “event risk” covenants once examples of events justifying the covenants have receded in memory, even though they could reoccur).

⁴³ See Charles Wilson, *Adverse Selection*, in 1 THE NEW PALGRAVE DICTIONARY OF ECONOMICS 32, 32–33 (John Eatwell et al., eds., 1987) (noting that, in this scenario, “the market allocation is almost always inefficient”).

⁴⁴ First Interim Report of Neil Baston, Court Appointed Examiner at 22, *In re Enron Corp.*, No. 01-16034 (AJG) (Bankr. S.D.N.Y. Sept. 21, 2002), available at http://www.enron.com/media/1st_Examiners_Report.pdf (noting, for example, that “total outstanding mortgage-backed and asset-backed securities in the United States alone exceed \$6 trillion”).

Indeed, securitization transactions are normally viewed as socially desirable.⁴⁵ Despite the subprime mortgage crisis, securitization generally creates overall value in the financial markets.⁴⁶

Another reason that government should not want to proscribe transactions as a means of controlling information asymmetry is that any such proscriptions could create regulatory arbitrage incentives: parties would want to make transactions appear to meet the regulatory requirements.⁴⁷ For example, if the government were to proscribe transactions for which the information asymmetry exceeded a threshold level, then parties would attempt to structure those transactions in ways that appear to reduce the asymmetry, as measured by the regulatory ban, below that threshold. The end result could be socially undesirable: the regulatory proscription is effectively bypassed, but the overall transaction costs rise due to the expenses of lawyers and other advisors hired for that purpose. For these reasons, regulators should not want to proscribe securitization transactions as a means of controlling disclosure's limitations.⁴⁸

3. *Requiring Supplemental Protections*

The third possible response is to consider whether disclosure can be buttressed by cost-effective, supplemental protections that minimize information asymmetry or mitigate its consequences. Any such supplemental protections would be *in addition to*, not in place of, disclosure since even insufficient disclosure provides value by reducing information asymmetry, and disclosure has other justifications beyond the asymmetric information problem.⁴⁹

In thinking about supplemental protections, it is useful to take into account economic theory on asymmetric information, especially that dealing with the so-

⁴⁵ See, e.g., Hill, *supra* note 12, at 1085–111; Schwarcz, *Securitization Post-Enron*, *supra* note 10.

⁴⁶ See Xudong An, Yongheng Deng & Stuart A. Gabriel, *Value Creation Through Securitization: Evidence from the CMBS Market* 3 (Feb. 18, 2008) (unpublished article, electronic copy available at <http://ssrn.com/abstract=1095645>).

⁴⁷ Regulatory arbitrage occurs when parties design transactions—in this case, financial transactions—to try to “reduce costs or capture profit opportunities created by differential regulations or laws.” Frank Partnoy, *Financial Derivatives and the Costs of Regulatory Arbitrage*, 22 J. CORP. L. 211, 227 (1997).

⁴⁸ Regulatory philosophy in the United States is also shying away from prohibiting categories of transactions. For example, the Commodity Futures Modernization Act of 2000 lifted the ban on over-the-counter derivatives and also eliminated the ban on single security futures contracts. Commodity Futures Modernization Act of 2000, Pub. L. No. 106-554, §1(a)(5), 114 Stat. 2763A-365 (codified as amended in scattered sections of 7, 11, 12, and 15 U.S.C.).

⁴⁹ Disclosure also can be seen as a means to break the management monopoly over corporate information, and is necessary because separation of ownership and control can cause managers to maximize their own utility at the expense of investors. JAMES D. COX ET AL., *SECURITIES REGULATION* 246 (4th ed. 2004).

called Lemons problem. Economists have asked: How do transactions ever occur if the seller has more information than the buyer, and the information disparity cannot be cured (at least at reasonable cost)? Why would a buyer ever be willing to enter into a transaction? These same questions pertain to the problem of disclosure in the face of complexity.

The Lemons problem was introduced and first systematically studied by using the crude but intuitive example of the used-car market.⁵⁰ One obvious solution is for the seller to make guaranties, such as warranties on the sale of goods, in order to shift the risk from the buyer to the seller. Other potential solutions include governmental and private-sector certification of quality.

(a) *Guaranties*

In a securitization context, guaranties would likely take some form of investor recourse to originators, including perhaps a “put” of securities back to the investment banks structuring the transactions⁵¹ or requiring these investment banks to retain at least a portion of the lowest ranked tranche of securities being sold. Requiring originators to take a reasonable first-loss position generally makes sense and typically is mandated by investors in securitizations of non-mortgage assets.⁵² Subject to the caveat discussed below, investors should consider extending this mandate to securitizations of mortgage loans.

In the subprime mortgage crisis, however, this concept actually backfired. In ABS CDO transactions, “[investment bankers] customarily purchased some portion of the equity tranches at least in part in order to demonstrate their (subsequently unjustified) confidence in the securities being sold.”⁵³ This induced many investors who otherwise might not have done so to purchase these securities, thereby working against investor caution.⁵⁴

This incongruity raises an important point about complexity: sometimes things are so complex that the problem is not merely information asymmetry but also information failure *on both sides*—in our case, originators as well as investors. Thus, “[e]ven the people running Wall Street firms didn’t really [always] understand what they were buying and selling.”⁵⁵

⁵⁰ See George A. Akerlof, *The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970).

⁵¹ See *supra* note 11; Daniel Andrews, *The Clean Up: Investors Need Better Advice on Structured Finance Products*, 26 INT’L FIN. L. REV. 14, 14 (Sept. 2007) (quoting David Doble, an industry professional, as suggesting some type of a put).

⁵² See Schwarcz, *Protecting Financial Markets*, *supra* note 1, at 17.

⁵³ *Id.*, at 9.

⁵⁴ *Id.*, at 9.

⁵⁵ Nelson D. Schwartz & Julie Creswell, *What Created This Monster?*, N.Y. TIMES, Mar. 23, 2008, at BU 1, 8 (quoting Byron Wien, Chief Investment Strategist, Pequot Capital).

(b) *Certification of Quality*

Another approach to protecting a buyer of securities is certification of their quality either by the government or reputable private-sector entities. Governmental certification is a form of merit regulation, and can be expensive. In the context of the original enactment of the federal securities laws, it was explicitly rejected as unworkable.⁵⁶ There is little current literature on government certification of securities quality because, until recently, disclosure was seen as the complete answer.

Should we now reconsider some form of substantive governmental merit regulation? Such merit regulation would by definition rely on government employees to assess the quality of securities. It is doubtful that government employees would do a better job than private-sector analysts, who already perform this function for investors. The private-sector analysts are likely to be more capable, on average, and also more accountable, because the government generally pays lower salaries than the private sector,⁵⁷ and government employees are often harder to fire if they perform poorly.⁵⁸ Furthermore, the imposition of governmental merit regulation could perversely undermine the market for private securities analysts, thereby eliminating any reduced information asymmetry resulting from their analysis.

Private-sector certification of quality, in contrast, already exists in the form of rating agencies (which are private companies notwithstanding the “agency” moniker⁵⁹), which rate debt securities based on their likelihood of timely payment.⁶⁰ Rating agencies, however, have not always proved effective in the face of complexity.⁶¹ It is even being argued that rating agencies contributed to the subprime mortgage meltdown by failing to downgrade securities backed by subprime mortgages on a timely basis.⁶² Although rating agencies are now

⁵⁶ See Robert L. Knauss, *A Reappraisal of the Role of Disclosure*, 62 MICH. L. REV. 607, 615 (1964) (arguing that “[t]he main argument for disclosure was that a regulatory approach was not administratively practical”).

⁵⁷ See Craig A. Olson et al., *The Effects of Local Market Conditions on Two Pay-Setting Systems in the Federal Sector*, 53 INDUS. & LAB. REL. REV. 272 (2000).

⁵⁸ See, e.g., Kathryn Moss et al., *Unfunded Mandate: An Empirical Study of the Implementation of the Americans with Disabilities Act by the Equal Employment Opportunity Commission*, 50 U. KAN. L. REV. 1, 71 (2001).

⁵⁹ See *supra* note 33, at 2.

⁶⁰ See Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 WASH. U. L.Q. 619 (1999); *supra* note 30, at 3. Recall that securities issued in securitization transactions are virtually always debt securities. See *supra* note 39.

⁶¹ See, e.g., *Rating the Raters: Enron and the Credit Rating Agencies Hearing Before the S. Comm. on Governmental Affairs* 107th Cong. (2002) (hearing on rating agency failure to predict Enron’s collapse).

⁶² *The Role of Credit Rating Agencies in the Structured Finance Market Before the Subcomm. on Capital Markets, Insurance, and Government Sponsored Enterprises of the*

attempting to improve their credit rating capabilities,⁶³ it is too soon to predict the outcome.⁶⁴ It is, however, important to strive to improve these capabilities because rating agencies constitute a public good, creating an economy of scale to help individual investors assess the creditworthiness of complex securities.⁶⁵

Certification of the quality of securities, especially by private parties, therefore can help but may not fully solve the asymmetric-information problem. And in cases where there is not merely information asymmetry between originators and investors but also information failure on the part of originators, certification by originators can actually mislead investors.

IV. CONCLUSIONS

As complexity increases, the disclosure paradigm of securities law has been diminishing in effectiveness. This article suggests possible responses. For example, investors could require originators to take a reasonable first-loss position, although this backfired in the subprime mortgage crisis due to information failure by originators. Institutional investors should also try to reduce agency costs stemming from the conflict between the interests of individuals and the institutions for which they work.⁶⁶ Rating agencies should also try, as they now appear to be doing, to increase the quality of their “private certification” via ratings of securities.⁶⁷

These are, admittedly, only second-best solutions, but there do not appear to be any perfect solutions. “Government already takes a somewhat paternalistic stance to mitigate disclosure’s inadequacy by mandating minimum investor sophistication for investing in complex securities, yet sophisticated investors and qualified institutional buyers (QIBs) are the very investors who lost the most money in the subprime financial crisis. And any attempt by government to restrict

H. Comm. on Financial Services, 110th Cong. 47 (2007) (investigating the extent to which credit rating agencies may have contributed to the subprime mortgage meltdown).

⁶³ See, e.g., Standard & Poor’s, *Descriptions of New Actions to Strengthen Ratings Process and Better Serve Markets*, http://www2.standardandpoors.com/spf/pdf/media/Leadership_Action_Details.pdf (Feb. 7, 2008) (proposing various procedural review steps to improve rating capability).

⁶⁴ One scholar has proposed that Big Four auditing firms should consider providing “[r]atings based on an audit-like inquiry” which would, he claims, “make much more sense than our current system under which the rating agency’s letter grade is wholly based on information provided by the issuer that it assumes to be true.” John C. Coffee, Jr., *The Securitization Bubble*, NAT’L L. J., Mar. 17, 2008, at 14.

⁶⁵ Schwarcz, *Protecting Financial Markets*, *supra* note 1, at 10 n.31.

⁶⁶ For example, “individuals should be paid in a manner that better aligns their interests with the interests of the institutions for which they work.” *Id.* at 13.

⁶⁷ See *supra* notes 62–65 and accompanying text.

firms from engaging in complex transactions would be highly risky because of the potential of inadvertently banning beneficial transactions.”⁶⁸

There is, finally, another way that disclosure failed in the subprime mortgage crisis. Because “the motivation of market participants ‘is to protect themselves but not the [financial] system as a whole,’”⁶⁹ I have argued that “[d]isclosure alone will be inadequate to prevent [a] systemic” collapse of the financial system.⁷⁰ Investors are simply unlikely to care about disclosure to the extent it pertains to this systemic risk. The remedy for disclosure’s failure in this case must depend on separate protections to deter a systemic collapse.⁷¹

⁶⁸ Schwarcz, *Protecting Financial Markets*, *supra* note 1, at 13–14.

⁶⁹ Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 206 (2008) (quoting THE PRESIDENT’S WORKING GROUP ON FINANCIAL MARKETS, HEDGE FUNDS, LEVERAGE, AND THE LESSONS OF LONG-TERM CAPITAL MANAGEMENT 31–32 (1999)).

⁷⁰ Schwarcz, *Protecting Financial Markets*, *supra* note 1, at 14 (explaining that “like a tragedy of the commons, the benefits of exploiting finite capital resources accrue to individual market participants, each of whom is motivated to maximize use of the resource, whereas the costs of exploitation, which affect the real economy, are distributed among an even wider class of persons”).

⁷¹ See Schwarcz, *supra* note 69.