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Informational Failures In Structured Finance And Dodd-Frank's "Improvements To The Regulation Of Credit Rating Agencies"

Steven McNamara

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Informational Failures In Structured Finance And Dodd-Frank’s “Improvements To The Regulation Of Credit Rating Agencies”

Cover Page Footnote

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INFORMATIONAL FAILURES IN STRUCTURED FINANCE AND
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CREDIT RATING AGENCIES"

Steven McNamara

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*Steven McNamara**

ABSTRACT

This article analyzes the credit rating agency reform provisions of the Dodd-Frank Act’s “Improvements to the Regulation of Credit Rating Agencies” in light of the massive failures in the ratings of structured finance securities leading up to the 2008 credit crisis. The primary cause of ratings failure was the flawed quantitative ratings models used by the rating agencies; conflicted behavior on the part of the rating agencies was also an important but secondary cause. The key mechanical flaw in the ratings models was the method used to determine correlation, a measure of the likelihood that one borrower would default in the event that another did. In addition to flawed correlation measures, other important causes of informational failure in real estate-backed collateralized debt obligations include the decline in collateral quality at the peak of the housing boom and ratings arbitrage on the part of investment banks sponsoring structured finance transactions. While the Dodd-Frank Act contains important reforms meant to reduce the likelihood of future ratings failure, it does not attempt to regulate the ratings process directly but instead relies on the traditional securities law strategies of disclosure and liability to incentivize the production of accurate ratings. Such an indirect approach may be both puzzling and disappointing to critics of the rating agencies. It does however reflect the prevailing rule that the SEC may not regulate the substance of credit ratings and the practical limitations of legislators and regulators in this hypercomplex area, as well as a psychological aversion on the part of legislators and the public to understanding a central cause of the credit crisis as a primarily mechanical failure.

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INTRODUCTION

Despite disagreement about the ultimate causes of the financial crisis of 2008, observers agree that inflated credit ratings assigned to the complex structured finance securities known as collateralized debt obligations or “CDOs” were a central cause of the crisis and the severe recession that followed.¹ Among the causes identified are a worldwide savings glut, the increase in systemic risk resulting from the growth of the largely unregulated shadow banking system, abnormally low interest rates in the wake of the 2001-2002 recession, the inability of Americans to afford homes in an environment of stagnant wages and rising real estate prices, subprime mortgages and the proliferation of CDOs, credit default swaps (“CDSs”) and other new financial instruments. CDOs occupy a central place on this list, because they were the channel through which a flood of investment capital inflated the American housing market, thereby linking many of the other causes together.² Unfortunately for investors, homeowners and taxpayers the complexity inherent in the typical CDO gave rise to massive informational failures that remained hidden while the real estate market continued its rise. These failures manifested themselves primarily in the investment grade ratings the majority of CDO securities received. After the U.S. real estate market peaked in 2006, CDO securities suffered unprecedented ratings downgrades in 2007 and 2008, ushering in the credit crisis of 2008 and the ensuing recession.³

1. See FINANCIAL CRISIS INQUIRY COMM’N, FINANCIAL CRISIS INQUIRY REPORT (2011) [hereinafter the “FCIC REPORT”] (typifying the disagreement over the ultimate causes of the financial crisis, see the majority report and dissents. The report by the majority focuses on misdeeds and failures at the Wall Street investment banks and the CRAs, while the minority dissent focuses on a global credit bubble, among other causes; a second dissent focuses on government housing policy).

2. See generally Markus K. Brunnermeier, *Deciphering the Liquidity and Credit Crunch 2007-2008*, 23 J. ECON. PERSPS. 77, 98 (2009) (concluding that “[w]hat is new about this crisis is the extent of securitization, which led to an opaque web of interconnected obligations.”); GARY B. GORTON, SLAPPED BY THE INVISIBLE HAND: THE PANIC OF 2007 61-113 (Oxford Univ. Press 2010) [hereinafter GORTON, SLAPPED BY THE INVISIBLE HAND].

3. See Emphraim Benmelech & Jennifer Dlugosz, *The Credit Rating Crisis* (NBER Working Paper No. 15045), available at <http://www.nber.org/papers/w15045.pdf> (Table 2: Structured Finance Upgrades and Downgrades; Table 5: Asset Types with Most Downgrades).

A central objective therefore of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”)⁴ is to prevent the credit rating agencies (“CRAs”) from issuing such inaccurate ratings in the future. To accomplish this, Subtitle C of Title IX of the Dodd-Frank Act, “Improvements to the Regulation of Credit Ratings Agencies” (“IRCRA”), extends the traditional American securities law strategy of mandatory information disclosure to the credit ratings process and institutes corporate governance rules meant to curb the influence of conflicts of interest. It also exposes the CRAs to standards of liability similar, though not identical, to those other experts who opine on securities offerings face, and begins the process of eliminating the NRSRO (Nationally Recognized Statistical Ratings Organization) designation from federal law.

What IRCRA does *not* do is attack directly the root cause of ratings failure: the flawed quantitative models used by the CRAs to generate ratings for CDOs and other structured finance securities. Conflicts of interest and skewed incentives generated by the NRSRO designation were important causes of the ratings crisis, but I argue that both were secondary to the ratings models themselves. These models had the unusual effect of altering over time the very risk profile they were attempting to measure. By awarding investment grade ratings in a manner that was plausible when they were first implemented, during the period 2000-2003,⁵ the ratings models played an essential role in attracting massive amounts of investment to the CDO sector. They were thereby instrumental in inflating prices in the housing market to unsustainable levels, and in turn exposing the very real estate-backed CDOs they were rating to massive systemic risk that they failed to capture.

This article analyses IRCRA in terms of the specific informational failures latent within CDOs and the ratings models. Its goal is to explain how and why flawed ratings were given, and how IRCRA attempts to prevent similar failures in the future. To accomplish this, Part I begins with a look at the development of the structured finance industry and the

4. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) [hereinafter the “Dodd-Frank Act”].

5. See Felix Salmon, *Recipe for Disaster: The Formula That Killed Wall Street*, WIRED MAGAZINE, Feb. 23, 2009, available at http://www.wired.com/techbiz/it/magazine/17-03/wp_quant?currentPage=all [hereinafter Salmon, *Recipe for Disaster*]. While David X. Li’s formula provided a plausible means to measure risk, it came with limitations recognized by Li and others, which were generally ignored.

real estate boom in the United States. Part I then examines the pooling and tranching structure that is the hallmark of the CDO, as well as the typical method used to assign a credit rating to the various tranching securities issued by a CDO and the flaws with this approach; in particular it argues that technical flaws in the quantitative models were the primary cause of ratings failure in structured finance, and that conflicts of interest and regulatory incentives were important but secondary causes. The investment banks sponsoring CDO transactions, and by extension, the CRAs themselves, acted opportunistically when they took advantage of the various opportunities the flawed models offered them as insiders, but the models were already at work creating massive systemic risk before widespread intentional abuses occurred. Part II turns to IRCRA and presents a comprehensive overview of its provisions in light of the informational failures discussed in Part I. The Article concludes by considering how IRCRA responds to the specific problems discussed in Part I, and the possible significance of its indirect approach to quantitative failure.

I. INFORMATIONAL FLAWS INHERENT IN COLLATERALIZED DEBT OBLIGATIONS

The credit crisis began with the collapse of Lehman Brothers in September 2008. Lehman's collapse followed significant downgrades of complex securities tied to the real estate market during the course of the previous year and speculation as to the effect on the investment banks of the loss in value of these securities.⁶ While the credit crisis specifically refers to the reluctance of lending institutions to lend, and the near seizure in the financial markets that resulted in late 2008, it was brought on by the inability of major financial institutions to obtain short-term cash funding in the overnight repurchase or 'repo' markets by pledging

6. On 2007 ratings downgrades, see Aaron Luchetti & Serena Ng, *Get Set for a Wave of Debt Downgrades; With Investors Frazzled, Real Estate Softening, Three Ratings Firms Have Their Markers Out*, WALL ST. J., Nov. 9, 2007, at C1. For discussions at the time of possible effects of downgrades on the investment banks, see Chris Dammers, *Silent Billions of Super-Senior CDOs Emerge to Torture Banks*, EUROWEEK, Nov. 9, 2007, available at 2007 WL 28097315; Paul J. Davies & Michael Mackenzie, *Correlation Crisis Could Leave Banks the Biggest Losers*, FIN. TIMES, Feb. 15, 2008, at 23; Gillian Tett, *Banks' Mortgage Writeoffs to Hit \$60 Billion*, FIN. TIMES, Nov. 8, 2007, at 16.

their long-term securities as collateral for short-term loans.⁷ Because the banks could not obtain the cash necessary for their operations, their ability to operate was threatened and Lehman Brothers was forced into bankruptcy on September 15, 2008. While some economists specializing in financial markets maintain that the ultimate causes of this loss of confidence in the banks are complex and still uncertain,⁸ it is generally agreed that the uncertainty concerning the value of the real estate-backed CDO securities held on the balance sheets of the major banks and other financial institutions was the major factor in this loss of confidence.⁹

A. THE HOUSING BUBBLE AND THE RISE OF STRUCTURED FINANCE

The economic history of the past decade is dominated by the twin phenomena of a real estate bubble in the United States and other developed countries and the financialization of the American economy. In the United States, the average home price increased over 80% in value from 2000 to 2006 and the share of total corporate profits attributable to the financial industry in the period 2000 to 2003 increased from 29% to 42%, before sinking back to 28% in 2006.¹⁰ The

7. See GORTON, *SLAPPED BY THE INVISIBLE HAND*, *supra* note 2, at 128-35; Brunnermeier, *supra* note 2, at 80.

8. See Binyamin Appelbaum & Sewell Chan, *Senate Financial Bill Misguided, Some Academics Say*, N.Y. TIMES, May 3, 2010, at A16; see generally Peter Yeoh, *Causes of the Global Financial Crisis: Learning from Competing Insights*, 7(1) INT'L J. DISCLOSURE & GOVERNANCE 42 (providing an overview of competing perspectives on the financial crisis).

9. See, e.g., René M. Stulz, *Credit Default Swaps and the Credit Crisis*, 24 J. ECON. PERSPS. 73, 83 (2010) (arguing that the direct cause of the collapse of Bear Stearns and Lehman Brothers was that market participants “believed that there was a high probability that the assets of these institutions were worth less than their liabilities.”); GORTON, *SLAPPED BY THE INVISIBLE HAND*, *supra* note 2, at 112 (“[s]ecuritized bonds provided collateral for repo, and the shadow banking system worked. But once subprime risk infected the system, the vulnerability to panic was increased.”).

10. Home price data based on the Case-Shiller U.S. National Home Price Index, available at www.standardandpoors.com/spf/docs/case-shiller/csnational_values_052506.xls (last visited June 7, 2011). The Case-Shiller National Value Index is based on a survey of 20 leading metropolitan regions in the U.S. Data on corporate profits are contained in THE ECONOMIC REPORT OF THE PRESIDENT, 2011, Table B-91 (“Corporate profits by industry, 1962-2010”). See also the FCIC REPORT, *supra* note 1, at 64-66 (Financial Sector Growth: “I Think We Overdid Finance Versus the Real Economy.”).

housing bubble and the financialization of the economy were intertwined through the development of the structured finance industry, which constructed the CDO securities that served as the conduit for the capital fueling the real estate bubble.

In tandem with the rise in real estate prices and the financialization of the U.S. economy, came spectacular growth in the sophisticated financial products developed on Wall Street over the past 25 years. In the same period of 2000 to 2006, the Securities and Financial Markets Association (“SIFMA”) reports that total mortgage-backed securities (“MBS”) issuance rose from \$685.0 billion to \$2.15 trillion, asset-backed securities (“ABS”) issuance (not including MBSs or CDOs) increased from \$281.05 billion to \$753.87 billion, and global CDO issuance rose from \$67.99 billion to \$520.64 billion.¹¹ Markets in derivatives also mushroomed, with the notional amount of CDSs outstanding increasing from \$918.87 billion in 2001 to \$34.42 trillion in 2006, and then to \$62.17 trillion in 2007.¹² The major Wall Street banks led the way in developing complex securities tied to real estate, but all major financial players were involved, including hedge funds, institutional investors and the credit rating agencies, as well as the legislators and regulators whose decisions allowed these markets to develop outside the more tightly regulated public securities markets in

11. As reported by the Securities Industry and Financial Markets Association (“SIFMA”), *available at* <http://www.sifma.org/research> (last visited Mar. 31, 2012). Mortgage-backed securities (“MBSs”) include both commercial and residential securities. Asset-backed securities (“ABSs”) include first-tier structured finance securities backed by home equity loans, subprime mortgages (but not real estate assets covered under other SIFMA categories such as MBSs), consumer receivables such as auto loans and credit card receivables. Collateralized debt obligations (“CDOs”) denote second-tier securities that securitize other securities, such as corporate bonds, various types of ABSs and CDOs.

12. *ISDA Market Survey: Notional Amounts Outstanding at Year-End, All Surveyed Contracts, 1987-present*, INT’L SWAPS AND DERIVATIVES ASS’N, INC., (2010), *available at* www.isda.org/statistics/pdf/ISDA-Market-Survey-annual-data.pdf (last visited Mar. 31, 2012); *see generally* Stulz, *supra* note 9, at 78-79 (“The Size of the Credit Default Swap Market”). It should be remembered that while amounts in the *trillions* of dollars sound alarming, they are notional amounts signifying the value of the reference obligation covered by a credit default swap (“CDS”), not the value to the parties of the insurance contract itself. A CDS contract obligating the seller to cover default on \$100 million worth of bonds may cost the buyer 160 basis points, or \$1.6 million, per year. The notional value of this contract is \$100 million, though it yields only \$1.6 million to the seller and for most categories of bonds the risk of total loss of the underlying reference obligation is quite small.

the first place. “Structured finance,” which in a broad sense refers to all financial activities more complex than the traditional activities of underwriting single-issuer securities and engaging in lending activities, came to dominate Wall Street, displacing traditional lines of business such as advising corporate clients on mergers and acquisitions and underwriting “plain vanilla” securities transactions such as IPOs and issuances of corporate stock and debt.¹³

The most important development in finance of the past decade was the CDO.¹⁴ Both CDOs and ABSs are securitization structures that combine a large amount of financial assets, such as mortgages, credit card receivables, corporate loans, debt securities or other fixed income assets into an asset or collateral pool, and then issue debt securities (and for tax purposes, a small amount of equity) paying interest and principle

13. See, e.g., FCIC REPORT, *supra* note 1, 50-51 (stating that Goldman Sachs estimates that 25%-35% of its revenues in the 2006-2009 period came from derivative operations).

14. This Article uses the term “ABS” to refer to a first-tier structured finance security that holds assets other than securities themselves in its asset pool, typically mortgages, consumer loan, credit card receivables and other types of non-securitized fixed-income assets. “CDO” on the other hand is used here in its narrow sense to refer only to a second-tier debt security that holds securities (such as first-tier ABS) in its asset pool. (The term “CDO” is sometimes used in a broader sense to refer to all tranching securitization structures backed by fixed-income assets, so that all ABSs would be referred to as “CDOs.”) Within the narrower category, ABS CDOs are CDOs holding bonds backed by RMBSs (residential mortgage-backed securities) and CMBSs (commercial mortgage-backed securities) or other first-tier asset backed securities. The typical ABS CDO held hundreds of various RMBS debt securities in their asset pools, though they were also constructed with asset pools consisting of CMBSs, CLOs (collateralized loan obligations) and ABSs built on credit card receivables, auto loans, student loans and many other fixed income obligations. As the structured finance industry developed in the period of 2003-2005, CDOs began to use CDO securities themselves in their asset pools, particularly the mezzanine tranches that were difficult to sell, resulting in “CDOs squared” or “CDO²s.” In turn, CDOs squared were placed in CDOs, leading to “CDOs cubed” or “CDO³s.” “Synthetic CDOs,” which are very important to the final stage of structured finance before the crash, were developed when a shortage of RMBS securities in 2005 led to the substitution of payments from credit default swaps for the interest payments from securities backed by real assets that would mimic the performance of the RMBS used as reference assets. See Steven L. Schwarcz, *Protecting Financial Markets: Lessons from the Subprime Mortgage Meltdown*, 93 MINN. L. REV. 373, 376 (2008) (categorizing structured finance securities as MBSs, ABSs and CDOs).

funded by the underlying assets in the asset pool.¹⁵ The debt securities are divided into layers or tranches, with the less risky, higher tranches in the capital structure receiving the first payments under the CDO's "waterfall" provisions that govern the priority and amounts of payments on the different tranches.¹⁶

CDO issuance exploded, and many variations on the basic model were introduced from 2000 to 2007. Crucial to the widespread acceptance of CDOs by bankers and investors was the publication in 2000 of the Gaussian copula formula developed by David X. Li, a mathematician who worked at the Canadian Imperial Bank of Commerce and JPMorgan Chase.¹⁷ Although the formula was used in a simplistic and ultimately dangerous manner, the fact that it produced a single number indicating the correlation of risks in the CDO assets made it very useful for pricing CDO securities, and was central to their widespread acceptance.¹⁸ CDOs and ABSs were not new, however. Earlier forms of mortgage-backed securities were issued in the 1880s and the 1920s,¹⁹ and Lewis Ranieri at Salomon Brothers pioneered their contemporary incarnation by bundling mortgages together to make ABSs in the late 1970s and early 1980s.²⁰ Then in 1987 the first CDO was issued by Drexel Burnham Lambert.²¹ Before its collapse in 1990,

15. See Joshua Coval, Jakob Jurek & Erik Stafford, *The Economics of Structured Finance*, 23 J. ECON. PERSPS. 3, 15 (2009) [hereinafter Coval et al., *The Economics of Structured Finance*].

16. *Id.*

17. See David X. Li, *On Default Correlation: A Copula Function Approach*, 9 J. FIXED INCOME 43, 43 (2000) (introducing his Gaussian copula function for use in determining the correlation of default risks).

18. For the story of the introduction of the Gaussian copula function, see Salmon, *Recipe for Disaster*, *supra* note 5; see also Mark Whitehouse, *Slices of Risk: How a Formula Ignited Market That Burned Some Big Investors*, WALL ST. J., Sept. 12, 2005, at A1.

19. An earlier form of mortgage-backed security issued in the 1880s actually preceded the MBS of the 1970s. See Richard E. Mendales, *Collateralized Explosive Devices: Why Securities Regulation Failed to Prevent the CDO Meltdown, and How to Fix It*, 2009 U. ILL. L. REV. 1359, 1365-66 (2009).

20. See Mike McNamee, *Lewis S. Ranieri: Your Mortgage Was His Bond*, BLOOMBERG BUSINESSWEEK, Nov. 29, 2004; BETHANY MCLEAN & JOE NOCERA, *ALL THE DEVILS ARE HERE: THE HIDDEN HISTORY OF THE FINANCIAL CRISIS* 4-6 (Penguin Group, Inc. 2010).

21. Alfred J. Puchala, Jr., *Securitizing Third World Debt*, 1989 COL. BUS. L. REV. 137, 143 (1989); see *Imperial Corp. Unit Sells Notes Backed By High-Yield Bonds*, WALL ST. J., Sept. 25, 1987, at 45; see also Ann Monroe, *Agencies Will Broaden*

Drexel's C.E.O., Michael Milken, pioneered the high-yield or "junk bond" as a financing method for weak or otherwise financially distressed companies.²² Yielding rates that were substantially higher than the investment grade bonds issued by stronger companies, junk bonds were a means for troubled companies to obtain financing; on the buyer's side, they were attractive to investors willing to gamble on a risky company in return for a significantly higher payout.²³ Junk bonds met with an enthusiastic reception in the market, just as CDOs were to later, and rates of issuance were high.²⁴ For the bonds Drexel and the other investment banks could not sell, however, federal banking regulations required them to commit substantial amounts of regulatory capital to cover the risk that remained on their balance sheets.²⁵

The CDO was an ingenious solution to the problem of the regulatory capital requirements: by placing the bonds in an asset pool owned by a "special purpose vehicle," a trust or corporation legally separate from the investment bank sponsoring the transaction, they were taken off the bank's balance sheet, thereby freeing up regulatory capital to engage in further profit-generating activities, such as underwriting more junk bonds. From the sponsor's perspective, the CDO was a convenient solution to the constraint that banking regulations imposed on the lucrative but risky practice of junk bond finance. While the issuance of CDOs and ABSs also generated substantial fees for the investment banks, as investors paid a premium for debt securities tailored to their specific risk parameters, the original motive was as much regulatory as financial on the part of the sponsoring investment banks. This gave rise to what are known as "balance sheet" CDOs, CDOs issued for the purpose of improving bank balance sheets.²⁶

Triple-A Rating—It Will Go to Securities Backed By Junk Bonds, WALL ST. J., Sept. 8, 1987, at 41 (discussing concern about high ratings).

22. For an overview of the rise and fall of Michael Milken and Drexel Burnham Lambert, see JAMES STEWART, *DEN OF THIEVES* (1992).

23. See William A. Klein, *High-Yield Junk Bonds as Investments and as Financial Tools*, 19 CARDOZO L. REV. 505 (1997).

24. See Arthur E. Wilmarth, Jr., *The Transformation of the U.S. Financial Services Industry, 1975-2000: Competition, Consolidation, and Increased Risks*, 2002 U. ILL. L. REV. 215, 231-233 (2002).

25. See Richard Cantor & Frank Packer, *The Credit Rating Industry*, FED. RES. BOARD N.Y.Q. REV. 1, 6-7 (1994).

26. See Frank Partnoy, *How and Why Credit Rating Agencies Are Not Like Other Gatekeepers* (Univ. of San Diego Legal Studies Research Paper Series, Working Paper No. 07-46, 2006) at 73, available at <http://papers.ssrn.com/sol3/papers.cfm?abstract>

The explosive growth of structured finance was not driven solely by the interests of the investment banks, however.²⁷ Because they offered relatively high returns,²⁸ ABSs and CDOs met with considerable investor demand. Since the great majority of securities by dollar value issued by CDOs and ABSs were investment grade, possessing ratings of BBB or higher on the Standard & Poor's and Fitch ratings scales, and Baa on Moody's, institutional investors and others who were restricted to holding debt securities with investment grade ratings could purchase them.²⁹ Federal banking regulations had favored securities with high credit ratings since the early 1930s,³⁰ and the Securities and Exchange Commission (the "SEC" or "Commission") first introduced the "Nationally Recognized Statistical Ratings Organization" (NRSRO) designation into federal securities law in 1975 with the broker-dealer net capital rule, Rule 15c3-1, under the Securities Exchange Act of 1934 (the "Exchange Act").³¹ Rule 15c3-1 requires broker-dealers to take certain "haircuts" or reductions in value for debt securities they hold in calculating their required net capital; the ratings used must be issued by a NRSRO.³² The NRSRO designation has been adopted in many other areas of U.S. financial law, including in the Exchange Act, the Investment Company Act of 1940 and the Employee Retirement Income

_id=900257 [hereinafter Partnoy, *How and Why Credit Rating Agencies are Not Like Other Gatekeepers*].

27. There are three principal explanations offered for the existence of tranching securities: transactions costs, market incompleteness and asymmetric information. See Peter M. DeMarzo, *The Pooling and Tranching of Securities: A Model of Informed Intermediation*, 18 REV. FIN. STUD. 1, 2 (2005). As will be discussed in Part I.E below, economists and legal scholars have begun to question these conventional explanations. See, e.g., Partnoy, *How and Why Credit Rating Agencies Are Not Like Other Gatekeepers*, *supra* note 26.

28. See John Hull, *The Credit Crunch of 2007: What Went Wrong? Why? What Lessons Can Be Learned?*, 5 J. CREDIT RISK 3, 13 (2009).

29. See Cantor & Packer, *supra* note 25, at 5-7.

30. See Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 WASH. U. L.Q. 619, 688-90 (1999).

31. Adoption of Uniform Net Capital Rule and an Alternative Net Capital Requirement for Certain Brokers and Dealers, 40 F.R. 29795 (July 16, 1975).

32. Net capital requirements for brokers or dealers, 17 C.F.R. § 240.15c3-1 (2011) (section (c)(2)(vi), "Securities Haircuts"); see also Partnoy, *How and Why Credit Rating Agencies Are Not Like Other Gatekeepers*, *supra* note 26, at 25.

Security Act (“ERISA”).³³ While the intent of Congress was to incentivize, or in some cases require, institutional investors and others to hold less risky assets by instituting a legal barrier to investments in riskier or typically non-investment grade areas, such as consumer auto loans, non-securitized corporate loans, corporate junk bonds and residential mortgages, the NRSRO designation also granted a “regulatory license” to the established credit rating agencies.³⁴ Finally, ABS and CDO securities also allowed investors to surmount a practical barrier, as investment in many asset classes would have been difficult or impossible. By pooling hundreds and thousands of relatively small assets, such as mortgages on individual homes or credit card receivables, under a single corporate umbrella, structured finance securities provided access to types of assets otherwise unavailable, or at least not easily available, to institutions not dealing in those types of assets on the retail level.

B. OVERVIEW OF THE COLLATERALIZED DEBT OBLIGATION

The collateralized debt obligation or CDO is a complex debt security that at bottom is based on a relatively straightforward “pooling and tranching” structure: a CDO holds a multitude of fixed-income securities in its asset pool and uses the proceeds to make interest and principal payments to investors on the various subordinated layers or “tranches” of its own debt securities.³⁵ Instead of funding these payments with revenues from business activities and investment projects, as a traditional corporation does, the CDO pays its debtholders with the fixed-income payments it receives from its collateral.³⁶ The tranches of debt securities consist of (supposedly) low-risk, investment-grade

33. See John Patrick Hunt, *Rating Agencies and the “Worldwide Credit Crisis”*: *The Limits of Reputation, the Insufficiency of Reform, and a Proposal for Improvement*, 2009 COL. BUS. L. REV. 109, 144-47 (2009).

34. See Partnoy, *supra* note 30, at 623.

35. See Coval et al., *The Economics of Structured Finance*, *supra* note 15.

36. See Joseph R. Mason & Joshua Rosner, *Where Did the Risk Go? How Misapplied Bond Ratings Cause Mortgage Backed Securities and Collateralized Debt Obligation Market Disruptions* 34-51 (Working Paper, May 14, 2007), available at <http://ssrn.com/abstract=1027475> [hereinafter Mason & Rosner, *Where Did the Risk Go?*] (contrasting the dynamic nature of traditional corporate bond issuers with the static nature of structured finance vehicles and the relevance of this distinction for the ratings process).

securities at the top of the capital structure, followed by a smaller amount of ‘mezzanine’ securities and finally a small equity cushion of usually 1-4% by value.³⁷ While the internal mechanisms of the CDO can become very complex, especially the ‘waterfall’ structure that governs the order of payments to the various tranches, the hallmark of the CDO is this basic pooling and tranching structure.

CDOs are formed when the sponsor sets up a special purpose entity or “SPE” (also sometimes referred to as a special purpose vehicle or “SPV”), typically in a tax-friendly jurisdiction such as the Cayman Islands, to serve as the legal issuer of the CDO securities. The issuer is legally independent of the sponsor for two main reasons: first, the assets in the collateral pool must be under the control of a separate legal entity for accounting purposes under banking regulations; as discussed above, regulatory motives were behind the development of the first CDOs.³⁸ Second, for the debt securities issued by the CDO to attain an investment grade rating, it is crucial that the asset pool be legally independent and therefore bankruptcy-remote from the sponsor.³⁹

Once the issuer is formed, the sponsor begins the process of transferring assets to it. Typically this occurs over time as the collateral manager fills the asset pool during a specified period.⁴⁰ During this “ramp up” period, the collateral manager fills the collateral pool and then manages it under a collateral management agreement which gives the manager some leeway in determining the exact assets in the pool, although the agreement typically restricts the manager in terms of what assets can actually be placed in the asset pool.⁴¹

37. See GORTON, SLAPPED BY THE INVISIBLE HAND, *supra* note 2, at 97-101 (providing an overview of the structure of typical CDOs containing subprime mortgage-backed bonds).

38. See *supra* notes 25, 30-33 and accompanying text.

39. See generally Kenneth C. Kettering, *Securitization and Its Discontents: The Dynamics of Financial Product Development*, 29 CARDOZO L. REV. 1553 (2008) (providing a critical examination of the legal requirement of bankruptcy remoteness that is central to securitization).

40. See *CDOs in Plain English: A Summer Intern’s Letter Home*, NOMURA FIXED INCOME RESEARCH, (Sept. 13, 2004), http://www.vonodkothari.com/Nomura_cdo_plainenglish.pdf.

41. See GORTON, SLAPPED BY THE INVISIBLE HAND, *supra* note 2, at 97-98 (stating that the collateral manager “is allowed to trade—buy and sell—bonds to a limited extent (say 10% of the notional amount per year) over a limited period of time”); Efraim Benmelech & Jennifer Dlugosz, *The Alchemy of CDO Ratings*, 56 J. MONETARY ECON. 617, 625-26 (2009).

After the CDO is formed, the sponsor sells the various tranches of debt securities to investors.⁴² An aggressive but not unrepresentative capital structure from the 2003-2006 period is that of the Broderick CDO 1 Ltd. transaction,⁴³ arranged by Merrill Lynch in 2005:

Class	Value	Rating	Percentage
A-1V	\$250,000,000	AAA	20%
A-1NVA	\$354,750,000	AAA	29%
A-1NVB	\$485,000,000	AAA	39%
A-2	\$85,000,000	AAA	7%
B	\$43,000,000	AA	2%
C	\$23,000,000	BBB	2%
Preferred Shares	\$8,500,000	N/R	0.7%

All the securities issued by Broderick CDO 1 Ltd. are investment grade. Such securities are highly desirable for fixed-income investors seeking safe investments that still possess an attractive yield. Even more important for institutional investors such as pension funds and mutual funds and others are the investment-grade ratings these securities possess, i.e., any rating BBB or higher on the Standard & Poor's and Fitch scales, or Baa or higher on Moody's, because of numerous provisions of U.S. banking, securities and other financial law.⁴⁴

Also crucial to the internal structure of the CDO is the method used to ensure that its tranches receive the desired credit ratings. For a rating agency to assign a particular rating to a given tranche, it must determine

42. See the FCIC Report, *supra* note 1, at 128.

43. See BRODERICK CDO 1 LTD. OFFERING CIRCULAR, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2005-12-00_Broderick%201_CDO%20Offering%20Circular.pdf. The Broderick CDO 1 Ltd. offering documents are included in the CDO documents available at <http://fcic.law.stanford.edu/resource/staff-data-projects/cdo-Library>.

44. See *supra* notes 30-33 and accompanying text.

the likelihood of an interruption in payments of interest and principle on a given tranche in the event of default of a certain amount of assets in the asset pool.⁴⁵ The mezzanine tranches will be the first to suffer default, with the lower-yielding but safer securities higher in the capital structure defaulting only in the event of a greater disruption of payments from the asset pool.⁴⁶ The first and most common technique to ensure the safety of a given class of securities is “overcollateralization”: in building the capital structure, the sponsor provides a slightly greater amount of assets than is necessary under ordinary conditions.⁴⁷ With overcollateralization, the additional assets function as insurance in the event of disruptions of the payment stream from the underlying assets. Assuming normal economic conditions, the ultimate beneficiaries of overcollateralization will be the holders of the small equity tranche, as they will receive a (relatively) generous payout upon the termination of the CDO. The second technique used to insure that the tranches receive their desired ratings is to purchase insurance on the underlying assets in the form of CDSs.⁴⁸ In the event of default on the underlying mortgages, loans or other collateral, the CDSs will provide make-up payments to the SPE, allowing it to meet its scheduled payments to bond holders.⁴⁹ When the CRAs determine the ratings on a particular tranche of securities, the cushion a particular tranche has in the event of a

45. Coval et al., *The Economics of Structured Finance*, *supra* note 15, at 8; *see generally* Partnoy, *How and Why Credit Rating Agencies Are Not Like Other Gatekeepers*, *supra* note 26, 73-80 for an overview of the ratings process for structured finance securities.

46. *See* Partnoy, *How and Why Credit Rating Agencies Are Not Like Other Gatekeepers*, *supra* note 26, at 74.

47. *See* GORTON, SLAPPED BY THE INVISIBLE HAND, *supra* note 2, at 84, 99; *see also* Michel G. Crouhy, Robert A. Jarrow & Stuart M. Turnbull, *The Subprime Credit Crisis of '07 10* (Working Paper, July 9, 2008), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1112467 (discussing the difference between the income and expenses of the credit structure as “excess spread”).

48. *See* Kathleen C. Engle & Patricia A. McCoy, *Turning A Blind Eye: Wall Street Finance of Predatory Lending*, 75 *FORDHAM L. REV.* 2039, 2048 n.45 (2007).

49. *See* STANDARD & POOR'S STRUCTURED FINANCE CDO EVALUATOR VERSION 3.0: TECHNICAL DOCUMENT [hereinafter S&P CDO EVALUATOR] (Section 6.6, Long/short CDS, discussing role of CDSs as insurance in CDOs); *see also* the FCIC REPORT, *supra* note 1, at 132, 140 (discussing role of AIG in providing insurance to the CDO industry in the form of CDSs through its Financial Products Group).

disruption of payments from the asset pool, either through overcollateralization or through CDSs, will be taken into account.⁵⁰

Pooling fixed income assets under a separate legal entity, tranching their payments and the provision of some cushion in the event of defaults within the collateral pool then are the basic structural elements of the CDO. The basic structure of the CDO, and the ABS in general, is relatively straightforward, despite the fact that CDOs as actually constructed can become incredibly complex.

C. INFORMATIONAL FLAWS

In practice, the complexity of CDOs offers numerous opportunities for informational failure. Most second-tier, ABS CDOs are collateralized by 100 to 500 separate securities, each one of which might contain between 2,000 and 10,000 individual financial obligations, in the form of home, car, commercial real estate or other loans.⁵¹ Proceeds from this collateral are then divided into anywhere from 3 or 4 to 10 or more tranches, with the payment scheme governed by a complex “waterfall” provision providing for payment to the more senior tranches first, with the subordinate tranches following.⁵² The assembly of a CDO requires the coordinated efforts of the sponsor, collateral seller, collateral manager, credit rating agency, CDS seller (if credit

50. See Engle & McCoy, *supra* note 48, at 2047-2048.

51. A typical CDO would have in the low hundreds of securities or other obligations. See SECURITIES AND EXCHANGE COMM’N, SUMMARY REPORT OF ISSUES IDENTIFIED IN THE COMMISSION STAFF’S EXAMINATION OF SELECT CREDIT RATING AGENCIES 7 (2008) [hereinafter SEC 2008 SUMMARY REPORT]; see also Partnoy, *How and Why Credit Rating Agencies are Not Like Other Gatekeepers*, *supra* note 26, at 79 (“a typical CDO squared transaction might involve 1,000 corporate names [, since] there are only about 400 liquid corporate names” each corporate name was, on average, listed 4.17 times in a CDO squared transaction). A first-tier ABS, on the other hand, would typically have thousands of individual mortgages or other financial obligations. See Adam B. Ashcraft & Til Schuermann, *Understanding the Securitization of Subprime Mortgage Credit*, FED. RES. BANK OF N.Y. STAFF REPORT NO. 318 13 (2008) (analyzing a first-tier, \$881 million ABS backed by 3,949 subprime loans put together by New Century Financial, the GSAMP Trust 2006-NC2); see also FCIC REPORT, *supra* note 1, at 71 (analyzing a Citigroup RMBS with 4,499 subprime mortgages originated by New Century Financial, the CMLTI 2006-NC2).

52. See Coval et al., *The Economics of Structured Finance*, *supra* note 15; see also Benmelech & Dlugosz, *supra* note 41 tbl. 1, for an example of tranche structure and interest and principal waterfalls.

enhancement is provided through CDS or the CDO is synthetic) and the law firms representing the sponsor and the collateral manager.⁵³ And finally the CDO securities are purchased by an investor who may or may not have the technical capability to make an independent assessment of the CDO and its assets, if such information is even available.⁵⁴ In fact, due to the practical impossibility of investigating the underlying assets in a CDO, most investors appear instead to have relied on ratings provided by the CRAs.⁵⁵

The complexity of real-world CDOs led to three primary levels of informational failure: 1) At the level of the underlying assets in the collateral pool, the difficulty of ascertaining the creditworthiness of any one discrete asset; 2) at the level of the CDO as a whole, the difficulty of assessing the collective risk inherent in the collateral; and 3) the compounding of these two errors through the creation of second, third, and in some cases even fourth-tier structured finance securities. Compounding of error also propagated itself through the financial system through the significant use of CDSs priced according to flawed risk estimates.⁵⁶ As a result of these multifaceted informational problems, the CDO market collapsed in the latter half of 2007 and 2008 as investors lost faith in their ratings, particularly for those CDOs backed by real estate assets.⁵⁷ While on a theoretical level CDOs can be seen as a mechanism to overcome the “lemons problem” that would otherwise obtain benefits in the market for investing in assets such as

53. See the FCIC REPORT, *supra* note 1, at 129-132.

54. John C. Coffee Jr., *Ratings Reform: The Good, The Bad, and The Ugly* 54 (Columbia Law and Economics Working Paper No. 359, 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1650802 [hereinafter Coffee, *Ratings Reform*] (access to capital in industries such as housing finance “may depend on ratings that are credible, because ‘do-it-yourself’ financial analysis of opaque debt instruments is simply not feasible for most financial institutions.”).

55. See Mendales, *supra* note 19, at 1361 (“The key to the problem is that unregulated ratings for asset-backed securities became proxies for the full disclosure required by securities law.”); see also Charles W. Calomiris, *Financial Innovation, Regulation, and Reform*, 29 CATO J. 1, 72 (2009) (arguing that in fact buyers wanted CRAs to underestimate the risk inherent in complex securities because of the regulatory benefits granted by the ratings).

56. See Carrick Mollenkamp, Serena Ng, Liam Plevin & Randall Smith, *Behind AIG's Fall, Risk Models Failed to Pass Real-World Test*, WALL ST. J., Nov. 3, 2008, at A1.

57. See Benmelech & Dlugosz, *supra* note 3 (Table 5: Asset Types with Most Downgrades).

mortgages and consumer loans, it appears that the actual informational failures in many CDOs swamped whatever theoretical informational benefits they offered.⁵⁸ CDOs therefore appear to have been “lemons in disguise,” so to speak, risky assets that were not recognized as such in the marketplace due to the difficulty, and perhaps even the impossibility, of actually ascertaining their true credit risk.

1. Risky Collateral

In the complex chain of relationships that comprises the mortgage-backed CDO, the first link is the relationship between the borrower using a mortgage to purchase or refinance a home and the mortgage originator arranging her loan. Traditionally, in the United States this relationship had been between the homeowner and a local bank which held the mortgages it issued until maturity, making a small but safe return on its loans; whatever risk the bank assumed was balanced out by the value of the property mortgaged, and with a 20% required downpayment the risk of such loans was small.⁵⁹ Over the past decade the originate-to-hold business model was displaced by mortgage brokers originating to distribute,⁶⁰ at the same time that prices began to inflate and new types of mortgages such as adjustable rate mortgages (“ARMs”) and interest-only mortgages (“IOs”) were developed in response to the affordability squeeze.

Just as homebuyers found it difficult to properly evaluate the costs and risks these mortgages entailed, their complexity would have also made it difficult, had they wanted to do so, for the CDO sponsors who bought them to properly evaluate their creditworthiness as compared to a straightforward fixed-rate, prime mortgage. In any event, sponsors did not look too closely at the collateral going into residential mortgage-backed securities (“RMBSs”) and, in turn, CDOs, as they were focused on the fee income they earned from the CDO business, and assumed that the supersenior tranches their institutions retained would in any event be safe as they sat at the very top of the tranced capital structures.⁶¹

58. See *infra* Part I.E.1.

59. See Oren Bar-Gill, *The Law, Economics and Psychology of Subprime Mortgage Contracts*, 94 CORNELL L. REV. 1073, 1076.

60. See Richard J. Rosen, *The Role of Securitization in Mortgage Lending*, CHI. FED LETTER (Fed Res. Bank of Chi., Chi. Ill.), (Nov. 2007), http://www.chicagofed.org/digital_assets/publications/chicago_fed_letter/2007/cflnovember2007_244.pdf.

61. See the FCIC REPORT, *supra* note 1, at 129.

Nevertheless, subprime mortgages issued through 2005 performed fairly well, with only a small increase in defaults up to 2006.⁶² The 2006 vintage of subprime loans however began to default soon after issuance, which was first noticed in early 2007 and provided the first signal of problems in the housing market.⁶³ One reason for this is that flawed incentives in the originate-to-distribute mortgage origination model had by that time corrupted mortgage lending, leading to the first set of informational failures in the subprime chain. By 2006, as competition in the mortgage business reached a fever pitch, senior management of the mortgage brokers placed intense pressure on their sales forces to grow the volume of mortgages originated.⁶⁴ In response, it appears that while the numerical factors such as FICO scores, loan-to-value ratios and other data reported to purchasers of mortgages on term sheets remained relatively constant, other items of information requested by brokers, such as length of time on the job and the time spent in the last residence, declined in quality. This information requested by lenders was not even shared with buyers of mortgages and investors further down the chain.⁶⁵ In addition to the probable decline in borrower quality reflected by such non-reported information is also the presence of a certain amount of outright mortgage fraud on the part of borrowers. In many such cases, this fraud was abetted by unscrupulous mortgage lenders who had no incentive to police against it, as they were paid on the basis of commissions on loan volume, not the ultimate soundness of such loans granted. For example, the SEC's 2008 CRA Examination Report mentions that when one CRA began "Enhanced Originator/Issuer Reviews" for subprime transactions, it "conducted an internal review of 45 loan files and reported that it found the appearance of fraud or

62. See Yuliya Demyanyk & Otto Van Hemert, *Understanding the Subprime Mortgage Crisis* 1-2 (Dec. 5, 2008), available at <http://ssrn.com/abstract=1020396> (Figure 1 illustrates the increased delinquency rates for mortgages issued in 2006 and 2007; the authors also demonstrate that delinquency rates increased for all types of mortgages, not just low documentation ones, and that the decrease in housing price appreciation was a major factor associated with delinquency).

63. See Thomas Zimmerman, *The Great Subprime Meltdown of 2007*, 13 J. STRUCTURED FIN. 7, 12 (2007) ("loans from 2006 with the same characteristics [hybrid ARMs, simultaneous 2nd liens with 0% down and liar loans] are defaulting at about twice the rate as their 2005 cousins.").

64. See FCIC REPORT, *supra* note 1, at 105.

65. See Zimmerman, *supra* note 63, at 12.

misrepresentation in almost every file.”⁶⁶ Evidence of such fraud indicates that, at least at the height of the housing boom, the informational problems in MBSs and CDOs trace all the way back to the borrowers who took such loans.

A second and more fundamental reason for the risky collateral put into late-vintage ABS CDOs has to do with the very nature of the mortgages that were developed during the housing boom. The subprime mortgages that predominated during the housing boom were sensitive to housing prices in a way that traditional fixed-rate mortgages are not; specifically, their economic viability required continuously rising home prices.⁶⁷ Gary Gorton explains that the adjustable rate mortgage, with a ‘teaser’ rate of 2 or 3 years, and then a reset to a higher floating rate, say LIBOR plus 6.00%, in effect forces borrowers to seek a refinancing at the end of the introductory period, in order to avoid the much higher payments that would otherwise result when the initial rate expires.⁶⁸ In the event that house prices have risen, a lender would typically permit refinancing, either into a fixed rate loan or into another ARM, using some of the increase in the value of the underlying property as an equity cushion for the new loan.⁶⁹ In this way, subprime mortgages in a housing market experiencing substantial price increases could conceivably enable borrowers to build up enough equity in their homes to make the mortgages ultimately beneficial, despite the relatively high costs in interest rates and fees.

However, as Gorton emphasizes,⁷⁰ because the higher payments upon reset will be unaffordable for most borrowers, this implicitly gives the lender, and not the borrower, the option to continue to finance the purchase of the home or not. Unlike a fixed rate mortgage, where the borrower has the option to “call” the mortgage by prepaying or to “put” by defaulting, giving the property to the lender in effect, now the lender is given fundamental decision-making power over whether to continue

66. See SEC 2008 SUMMARY REPORT, *supra* note 51, at 18 n.23; see generally James Charles Smith, *The Structural Causes of Mortgage Fraud*, 60 SYRACUSE L. REV. 473 (2010).

67. See GORTON, SLAPPED BY THE INVISIBLE HAND, *supra* note 2, at 74-82 (“Subprime Mortgage Design”). “Subprime” is not an official designation or legal term; it merely denotes borrowers who are “perceived to be riskier than the average borrower because of a poor credit history.” *Id.* at 68.

68. *Id.* at 75.

69. *Id.* at 78-80.

70. *Id.* at 79.

financing the property. In Gorton's words, "a subprime mortgage contains an implicit embedded option on house prices for the lender."⁷¹ If the increase in the property's value is too small, or has even declined, a sufficient amount of equity will not have built up for the lender to feel comfortable extending the loan. In that event, the lender can repossess the property assuming the borrower is unable to make its payments upon reset.

Looking at the course of events from 2006 to the present, as the housing market slowed and then crashed, it is clear that where there are price declines on the levels seen in the United States, the lender's option in this situation does not in fact protect it. The costs of foreclosure are significant, combining the deterioration in property value of vacant homes with the effects of fire sale prices in auctions. The conclusion to be drawn is that a large measure of the risk in subprime collateral came from the intrinsic economic structure of the mortgage contracts, which were only viable if housing prices continued to increase as they had since the late 90s.⁷² Without such increases, borrowers could not refinance, and in an economic climate of widespread defaults and substantial price declines, the lender's option to possess the property was not very valuable either. Indeed, by 2008 over eighty subprime lenders had either gone bankrupt or otherwise halted subprime mortgage lending activities.⁷³

2. Ratings Models

After collateral is purchased by a CDO arranger, the process of constructing and rating a CDO begins. The quantitative ratings models were essential to the CDO business and by extension the credit crisis of 2008-2009, and ratings reform is one of the central objectives of the

71. *Id.* at 76.

72. *Id.* at 81 ("To reiterate, no other consumer loan has the design feature in which the borrower's ability to repay is so sensitively linked to appreciation of an underlying asset."); *see also* Zimmerman, *supra* note 63, at 8-10 (describing how a "virtuous subprime cycle" lasting from 2000 to 2007 "camouflaged the performance of high risk loans").

73. *See* Worth Civils & Mark Gongloff, *Subprime Shakeout*, WALL STREET JOURNAL ONLINE, available at <http://online.wsj.com/public/resources/documents/info-subprimeloans0706-sort.html>.

Dodd-Frank Act.⁷⁴ How were structured finance securities rated, and why did the ratings so utterly fail to capture the risk inherent in structured finance securities?

The traditional business of the rating agencies involved rating the credit risk of debt obligations issued by corporations, municipalities and other business and governmental entities.⁷⁵ Industrial corporations are dynamic institutions that function as individual actors in larger economic systems, and evaluating a company's debt primarily involves an analysis of the expected cash flow of the firm's underlying business and investment projects.⁷⁶ In rating the debt security of a corporate issuer the rating agencies focus on the quality and experience of management personnel, the prospects for the overall sector of the economy the firm operates in and entity-specific factors such as the firm's capital structure and existing financial condition. While issuers can appeal an assigned rating in the event of disagreement, the ratings process for traditional corporate debt is not interactive or iterative. The ratings agency reviews the entity after a debt issuance is planned, offering an independent assessment of the issuer towards the end of the capital-raising process.⁷⁷ In a standard corporate or government bond issuance the rating agencies do not function as active participants, and there is no legal question of their being deemed "underwriters" of a securities issuance under federal securities law.⁷⁸ In those instances where capital-raising institutions have pressed legal claims against the rating agencies in the context of conventional corporate or municipal bond issuances, the First Amendment provides a defense that their

74. See, e.g., Senate Banking Comm., *Brief Summary of the Dodd-Frank Wall Street Reform and Consumer Protection Act*, SENATE.GOV, http://banking.senate.gov/public/_files/070110_Dodd_Frank_Wall_Street_Reform_comprehensive_summary_Final.pdf.

75. See generally Cantor & Packer, *supra* note 25.

76. *Id.* at 3; see also Mason & Rosner, *Where Did the Risk Go?*, *supra* note 36, at 36-37.

77. See Cantor & Packer, *supra* note 25, at 5.

78. See Jennifer E. Bethel, Allen Ferrell & Gang Hu, *Legal and Economic Issues in Litigation Arising From The 2007-2008 Credit Crisis* 59 (Harv. L. Sch. Discussion Paper, 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1020396. Bethel et al. raise the issue of whether the CRAs could be considered "underwriters" for U.S. securities law purposes, exposing them to liability for their role in assisting with the structuring of complex securities, but conclude this is unlikely. Indeed, the courts have rejected such arguments. See *infra* Part II.C.1 for further discussion of the (non) issue of CRAs as underwriters.

ratings qualify as “the world’s shortest editorial” and government should not interfere, short of the demonstration of actual malice on the part of the agencies.⁷⁹

While structured finance ratings aim to capture the credit risk of the securities being issued, just as ratings of traditional debt securities do, and they use the same letter grades of AAA, AA, A, BBB, BB, B, CCC, CC, DD, D (the scale used by S&P and Fitch), or Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C, D (Moody’s), rating a structured finance security differs both in the degree of quantification involved and the process of working with the issuer.⁸⁰ First, in structured finance there is no corporate entity attempting to execute a business plan.⁸¹ Instead, the SPV has an asset pool often concentrated in one segment of the economy, most famously residential real estate.⁸² The CDO is not a dynamic organization but a (relatively) static one—except to the extent a collateral manager has the mandate to buy and sell a certain amount of assets in the asset pool in a given time period, it merely receives payments from the assets it holds. Instead of evaluating the experience and past successes of management and the prospects for such a firm in the economy at large, rating a CDO involves the use of complex statistical ratings tools intended to gauge credit risk by taking into account numerous data fields relevant to its asset pool.⁸³ Second, the CDO rating process is iterative, with sponsors knowing in advance the tools that will be used to rate their products, engaging in back-and-forth discussion with the particular analysts in charge of the rating, and having recourse to an appeals process in the

79. See *infra* Part II.C.1 for further discussion of the First Amendment protections offered to the CRAs.

80. See Mason & Rosner, *Where Did the Risk Go?*, *supra* note 36, at 36-48 on the contrast between rating structured finance securities and traditional corporate debt obligations; see note 84 *infra* on the back-and-forth nature of the structured finance ratings process.

81. See Mason & Rosner, *Where Did the Risk Go?*, *supra* note 36, at 36-37.

82. See Jian Hu, *Assessing the Credit Risk of CDOs Backed By Structured Finance Securities Rating Analysts’ Challenges and Solutions* 8 (Figure 5, “Distribution of Asset Types Backing Cash and Hybrid SF CDOs”) (Moody’s Investors Service, 2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1011184; see also the SIFMA breakdown of ABS categories at www.sifma.org/research/statistics.aspx (last visited May 5, 2011), listing auto, credit cards, equipment, home equity, manufactured housing, other and student loans.

83. See S&P CDO EVALUATOR, *supra* note 49.

event the sponsor disagrees with the conclusions of the analyst and rating committee at the agency.⁸⁴

The process begins with the CDO sponsor presenting the details of the proposed deal to the CRA, including the particular assets to be held in the asset pool, the proposed capital structure and the ratings sought for the various tranches. Sponsors have access to the quantitative tools developed by the rating agencies—S&P’s “CDO Evaluator,” Moody’s “CDOROM,” and Fitch’s “VECTOR”—and even run the quantitative computer simulations themselves that are designed to calculate the probability of losses and to justify a given rating for a tranche.⁸⁵ After the calculations are run the sponsor presents the rating agency with the audited results.⁸⁶ The CRA focuses on the quantitative information the sponsor provides, as well as qualitative factors such as the reputation and track record of the collateral manager the sponsor intends to use and the legal structures reflected in the draft CDO documentation.⁸⁷ In the course of the ratings process, the rating analysts engage in a collaborative process with their client to structure an asset pool that meets the sought-after ratings at the lowest possible cost to the sponsor.⁸⁸ After a deal structure, asset pool and ratings are decided upon,

84. Despite protestations on the part of the CRAs downplaying the interactive nature of the ratings process (*see, e.g.*, Hu, *supra* note 82, at 10, n.17 (“Contrary to some misconceptions, Moody’s rating analysts are not involved in the structuring and pricing of CDO transactions. In addition, it is natural that rating analysts and arrangers need to have dialogues as arrangers make changes to satisfy investors and present these changes to rating analysts for review.”)), it is clear that issuing a structured finance rating involved, at the minimum, extensive back-and-forth communications and negotiations between the parties. *See* BANK FOR INT’L SETTLEMENTS, COMM. ON GLOBAL FIN. SYS., THE ROLE OF RATINGS IN STRUCTURED FINANCE: ISSUES AND IMPLICATIONS 2 (2005); John C. Coffee, Jr., *The Mortgage Meltdown and Gatekeeper Failure*, N.Y.L.J., Sept. 20, 2007, at 5; Aaron Lucchetti, *Rating Game: As Housing Boomed, Moody’s Opened Up*, WALL ST. J., Apr. 11, 2008, at A1 (quoting former Moody’s executive Paul Stevenson as saying “that the rating process became a negotiation.”); Mason & Rosner, *Where Did the Risk Go?*, *supra* note 36, at 13.

85. *See* Partnoy, *How and Why Credit Rating Agencies Are Not Like Other Gatekeepers*, *supra* note 26, at 79 n.62, *citing* STANDARD & POOR’S, STRUCTURED FINANCE, S&P GLOBAL CASH FLOW AND SYNTHETIC CDO CRITERIA, Mar. 21, 2002.

86. *Id.*

87. *See* Hu, *supra* note 82, at 10-11.

88. *See* Roger Lowenstein, *Triple A Failure*, N.Y. TIMES MAGAZINE, Apr. 27, 2008, at 36; *see also* Benmelech & Dlugosz, *supra* note 41, at 632-33. Benmelech & Dlugosz point out that S&P’s CDO Evaluator software allowed sponsors to calculate the minimal amount of collateral required to support a particular credit rating for a

the analyst at the CRA presents the entire transaction to the ratings committee at the agency for sign-off. If the sponsor disagrees with the final determination of the ratings committee, it may appeal the committee's rating if it believes it does not reflect the CDO's actual creditworthiness.⁸⁹

The mathematical rating models are the key to the ratings process. While they differ in their particulars, the three major CRAs all follow the same basic two-step approach.⁹⁰ First, a loss distribution for the underlying asset pool is determined, and second, cash-flow simulations are run using the loss distribution to estimate whether the securities in the proposed capital structure, with its payment waterfalls and other financial details, merit the ratings sought.⁹¹ Estimation of the loss distribution involves an analysis of the assets in the collateral pool, such as mortgage or other asset-backed securities, corporate loans, etc. and assigning default probabilities to them using historical or other data relevant to their performance. A key assumption in the first step of the ratings process concerns the correlation rate, that is, the likelihood that one asset will default in the event that another does so. For example, if one corporate debt security defaults, S&P's CDO Evaluator assumes that another corporate debt security issued by a company in the same sector will have a 15% chance of defaulting, but the likelihood that another corporate security by an issuer exists in a different sector is assumed to be only 5%.⁹² Many observers believe that a key factor in the

tranche, and that S&P's CDO Evaluator Handbook Version 3.0 (2006) stated that S&P's Excess Collateral field "tells what percentage of asset notional needs to be eliminated (added) in order for the transaction to provide *just enough* (i.e. ROC equals 100%) support at a given rating level." Benmelech & Dlugosz, *supra* note 41, at 632 (Figure 7, reproducing page from S&P's CDO Evaluator Handbook, Version 3.0 (2006)). The authors also argue that the remarkable structural uniformity of the 744 cash-flow CLOs they analyze indicates that sponsors most likely learned that particular combinations of tranches and ratings provided the highest ratings at the lowest possible cost. See Benmelech & Dlugosz, *supra* note 41, at 618.

89. See SEC 2008 SUMMARY REPORT, *supra* note 51, at 9.

90. For a discussion of ratings methods in general, see generally Ingo Fender & John Kiff, *CDO Rating Methodology: Some Thoughts on Model Risk and Its Implications* (Bank for International Settlements, Working Paper No. 163, 2004), available at <http://www.bis.org/publ/work163.pdf>. For a discussion of Moody's approach, see also Hu, *supra* note 82, at 10-17 (discussing Moody's approach).

91. See Crouhy et al., *supra* note 47, at 10.

92. S&P CDO EVALUATOR, *supra* note 49, Appendix III ("Correlation Assumptions for CDO Evaluator Assets").

flawed ratings assigned to mortgage-backed CDOs is that the correlation assumptions for default on mortgage-backed securities in the asset pools were far too low.⁹³ Once the default probabilities and other factors such as recovery rates in the event of default are determined, Monte Carlo simulations are run, resulting in probabilistic distributions of loss throughout the asset pool.⁹⁴

After a loss distribution is determined, the second step is to determine how the projected losses would affect each individual tranche of the proposed CDO.⁹⁵ In the CDO Evaluator model used by S&P, this is done by calculating the level of default each tranche must be able to withstand in order to achieve the targeted credit rating, or the “scenario loss rate.”⁹⁶ The rating agency first determines the default rate on corporate bonds with the same rating and life as the rating sought for the particular tranche in question and for bonds of a maturity equal to the weighted average maturity of the CDO’s assets.⁹⁷ Assume, for example, that corporate bonds with a 7-year life and a rating of AA have a 2% chance of default. The scenario loss rate then is the default rate for the particular tranche in question that has a no greater than 2% chance of being exceeded under the loss distribution calculated in the first stage. Finally, the rating agency runs cash flow simulations to ensure that each tranche will meet its scheduled interest and principal payments in the event of defaults up to the scenario loss rate. Credit enhancement ensuring that a tranche will meet its obligations in the event of losses is provided by the tranche’s subordination level, i.e., the amount of securities below it in the capital structure, the excess payment levels of the collateral relative to the interest and principal owed by the CDO, or its “overcollateralization,” as well as reserve accounts and third-party insurance.

As the massive amount of downgrades of CDO securities demonstrates, the ratings generated by the CRAs’ models were, to put it

93. See, e.g., Crouhy et al., *supra* note 47, at 45; Mason & Rosner, *supra* note 36, at 25; see also Charles C. Calomiris, *The Subprime Turmoil: What’s Old, What’s New, and What’s Next*, 15 J. STRUCTURED FIN. 6, 13 (2009) (explaining that expected losses on subprime RMBS pools were only 4.5% in 2004, and rose to roughly 6.0% in 2006).

94. See Partnoy, *How and Why Credit Rating Agencies Are Not Like Other Gatekeepers*, *supra* note 26, at 76.

95. See Crouhy et al., *supra* note 47, at 10.

96. S&P CDO EVALUATOR, *supra* note 49, at 10.

97. See Partnoy, *How and Why Credit Rating Agencies are Not Like Other Gatekeepers*, *supra* note 26, at 77.

mildly, unreliable. As observers have noted, any quantitative model is subject to the limitations of 1) its assumptions, and 2) the quality of its inputs.⁹⁸ In the case of ABS ratings in general, both the assumptions behind the model and the accuracy of the data concerning the underlying collateral, particularly for CDOs formed in 2006 and 2007, failed to produce a rating that would reflect the creditworthiness of the security being rated. The reasons for this stem from faulty data, as well as the assumptions used to interpret it, and the tranching structure of the CDO securities themselves.

In order to come up with a correlation number comparable to the correlation numbers used to estimate the risk of default of corporate bonds, the CRAs resorted to data on CDS prices on MBSs. Such information would track the risk of default for such bonds, as a CDS functioned as insurance on such prices. This method for estimating default was used because information on the risk of default of actual mortgages simply was not available.⁹⁹ In theory this may have been a plausible strategy, but in practice it had serious flaws: the data used was limited to a time of rising house prices, the 1990s and 2000s,¹⁰⁰ and so failed to capture the effect of a decline in house prices on CDOs built on real estate assets. It also failed to capture important changes in the mortgage market, as mortgage products such as interest-only, adjustable rate and low and no-documentation loans had not even existed during the periods the CDS data was taken from.¹⁰¹ Given that many of the new mortgage products depended on rising house prices in order to avoid default, the new mortgage forms were not economically comparable to the traditional, fixed-rate mortgages,¹⁰² and so the CDS price data on mortgages securities from the 1990s would not correlate with the defaults to be expected in the housing market of 2004-2007. As a result, the correlation numbers stand out as perhaps the single most important

98. Professor Coffee, for example, notes the “GIGO Effect,” or “Garbage In, Garbage Out.” See Coffee, *Ratings Reform*, *supra* note 54, at 16. In his discussion of ratings models, Frank Partnoy also states that “However sophisticated their techniques, they are subject to the limitations of ‘garbage in, garbage out.’” Partnoy, *How and Why Credit Rating Agencies are Not Like Other Gatekeepers*, *supra* note 26, at 77.

99. See Salmon, *Recipe for Disaster*, *supra* note 5.

100. *Id.*; see also Mason & Rosner, *Where Did the Risk Go?*, *supra* note 36, at 25-26.

101. See Mason & Rosner, *Where Did the Risk Go?*, *supra* note 36, at 26; Coval et al., *The Economics of Structured Finance*, *supra* note 15, at 15.

102. See *supra* notes 67-71 and accompanying text.

flaw in the models used by the CRAs.¹⁰³ The risk of default of the underlying assets in the asset pool in a time of widespread economic distress was not accurately captured; because the ratings models employed non-comparable data to judge correlation, they implicitly assumed that housing prices would continue to rise. By including many hundreds and thousands of assets in their asset pools, CDOs were thought to diversify risk, but due to these assets' sensitivity to a decline in real estate prices, and ultimately, a general economic decline, they instead were exposed to great systemic risk which they themselves created.¹⁰⁴

A second informational flaw with the CDO concerns the quality of the collateral and the ability of the sponsors to fill their asset pools with the lowest quality collateral necessary to still achieve a desired rating. Benmelech & Dlugosz, and their student Anna Katherine Barnett-Hart, argue that the remarkable consistency of the capital structures of CDOs and CLOs is evidence that sponsors became adept at manipulating the ratings models to achieve given ratings for their tranches at the lowest possible cost.¹⁰⁵ CDOs thus became a dumping ground for low-quality, fixed-income assets that the banks could not otherwise dispose of, with the ratings models functioning as a sort of alchemical technique that appeared, for a time, to turn this dross into highly-rated gold. The use of subprime mortgages in ABSs and CDOs in 2005 and 2006 suggests this, as does the creation of mezzanine CDOs-squared, CDOs built on mezzanine-level CDO securities that the banks found it difficult to sell. CDOs therefore became a way to sell 'lemons' which were not recognized as such due to the fact that investors, and even to some

103. See sources cited *supra* note 93.

104. See Coval et al., *The Economics of Structured Finance*, *supra* note 15, at 18 (explaining that with pooling, losses become "driven entirely by the systematic risk exposure"); GILLIAN TETT, FOOL'S GOLD: HOW UNRESTRAINED GREED CORRUPTED A DREAM, SHATTERED GLOBAL MARKETS AND UNLEASHED A CATASTROPHE 121 (2009) [hereinafter, TETT, FOOL'S GOLD] ("The more that banks all relied on Li's Gaussian copula approach, the more they were creating a *new* form of correlation risk.") (emphasis in original).

105. Benmelech & Dlugosz, *supra* note 41, at 632-33 (uniformity of CDO structures suggests that sponsors were using ratings software "to achieve the highest possible credit rating at the lowest possible cost"); Anna Katherine Barnett-Hart, *The Story of the CDO Market Meltdown: An Empirical Analysis* 94 (unpublished A.B. thesis, Harvard Univ.), (Mar. 19, 2009), available at <http://www.hks.harvard.edu/m-rcbg/students/dunlop/2009-CDOMeltdown.pdf> [hereinafter Barnett-Hart, *The Story of the CDO Market Meltdown*].

extent the CRAs, were unaware of the informational flaws inherent in CDOs due to their internal complexity as well as the flaws in the ratings models.

3. *Compounding Errors*

Finally, the effects of the first two informational failures are compounded when first-tier ABSs are used as collateral for higher-level CDOs. A CDO backed by RMBS securities is already a second-tier structured finance security, and so any errors in the initial ratings process of the RMBS are compounded in the second ratings process when the tranches are rated to create an ABS CDO. Furthermore, as the structured finance boom progressed, CDO²s (“squared”) and even CDO³s (“cubed”) were formed to repackage the mezzanine-level CDO securities that the banks found it difficult to sell to investors.

In *The Economics of Structured Finance*, Joshua Coval, Jakub Jurek and Erik Stafford explain the magnifying effects of the pooling and tranching structure on default probability.¹⁰⁶ Combined with the extremely fine-grained differentiations in default probabilities that the ratings scales used by the CRAs indicate, these magnifying effects produced CDO ratings that were very sensitive to mistakes in correlation and default probability numbers in their underlying collateral. Coval et al. begin by constructing a hypothetical group of 40 CDOs, each with 100 bonds in its asset pool.¹⁰⁷ Each bond has a five-year default probability of 5% and a recovery rate of 50% upon default.¹⁰⁸ Default correlation of any two bonds in the asset pool is 20%, and defaults of bonds in different asset pools are uncorrelated. Each CDO is composed of three tranches, where the junior tranche absorbs all losses until the portfolio loss reaches 6%, at which point it becomes worthless, the mezzanine tranche then absorbs all losses up to 12% and then the senior tranche absorbs all following losses.¹⁰⁹ There is also a CDO² constructed of all the mezzanine tranches from the original 40 CDOs.

Given the rating scale published by Fitch, in which investment grade bonds (from AAA to BBB-) had annualized default probabilities ranging from 0.02% to 0.75%,¹¹⁰ while speculative grade bonds (BB+ to

106. See Coval et al., *The Economics of Structured Finance*, *supra* note 15, at 15.

107. *Id.* at 9.

108. *Id.*

109. *Id.* at 10.

110. *Id.* at 8.

C) ranged from 1.07% to 29.96%,¹¹¹ the hypothetical CDOs were very sensitive to changes in the assumed correlation figures, as well as default probabilities. For example, increasing the default correlation from 20% to 40% in the case of the CDO led to a decrease in the rating of the mezzanine tranche from BBB- to BB-, while the senior tranche fell from AAA to A+.¹¹² With the CDO², the results were particularly pronounced in the case of the mezzanine tranche: here, increasing default correlation alone from 20% to 40% caused the security to lose its investment grade standing, falling from AAA to B+.¹¹³ In the case of the CDO² senior tranche, increasing the default probability from 5.00% to 12.50% caused its rating to collapse, from AAA to B-.¹¹⁴ And, as Coval et al. point out, real estate-backed CDOs should really be understood as CDO²s, because their underlying RMBSs already resecureitize an original securitization of mortgages.

The Economics of Structured Finance is a vivid and succinct presentation of the phenomena institutional investors and others watched with horror in 2008, as large amounts of CDOs and CDO²s suffered drastic downgrades, and then collapsed in value. The power of CDOs to insulate their higher tranches from defaults within the collateral pool during normal economic conditions simultaneously exposed the higher tranches to great sensitivity in ratings, particularly given the very fine gradations in default probability expressed in the investment grade ratings scales. As Coval et al. illustrate, the pooling and tranching structure essential to structured finance served to compound the sensitivity of these securities to small errors in estimates of the underlying default correlation, default probability and other aspects of the creditworthiness of the underlying collateral pool.

D. RATINGS MODELS AS THE PRIMARY CAUSE OF FLAWED RATINGS

In the aftermath of the credit crisis, as the foreclosure crisis mounted and the recession took hold in the U.S. and abroad, significant attention was focused on the CRAs. Investors realized that structured finance securities were assigned ratings that failed to capture their true

111. *Id.*

112. *Id.* at 15 (Table 3, “Effects of Changes in Underlying Parameters on CDO and CDO² Tranche Ratings”).

113. *Id.*

114. *Id.*

risks, by significant margins. Quite naturally, the issuer-pays business model of the CRAs came in for severe criticism, with critics focusing on the fundamental conflict of interest embodied in having issuers pay the CRAs directly for ratings of their securities.

In what follows, I argue that while conflicts of interest were a crucial secondary cause of flawed ratings, a close look at structured finance ratings and the skewed factors in the ratings models leads to the conclusion that in the first instance flawed ratings can be explained by the flawed ratings models and their inputs, without any need to resort to the human agency on the part of CRA managers that conflicts of interest entail. The appropriate place for conflicts of interest in an account of the ratings fiasco is as an aggravating secondary cause, where the desire to please paying clients led managers to turn away from a rigorous examination of the assumptions and data used by their ratings models, to construct a ratings system they knew or should have known was being gamed by their clients, and in at least one instance, cover up for a flawed ratings model by making offsetting changes to the model when the flaw was uncovered.¹¹⁵ It must be conceded to those who emphasize the role of conflicts of interest in the ratings disaster that conflicted behavior made the credit crisis much worse than it had to have been, by letting the housing bubble and structured finance boom continue for perhaps two or three years longer than it otherwise would have. Had the CRAs stopped issuing flawed ratings in 2004 or 2005, when doubts about the ratings system began to surface and economists began to wonder if housing prices were sustainable, the effects of the credit crisis would likely have been greatly diminished. Nevertheless, the primary cause of flawed ratings is the reliance on quantitative ratings models containing serious technical flaws. The development of the ratings models occurred over a number of years, and key elements of the system, which CDO sponsors took advantage of, such as the grounding assumptions and the make-up of the data fed into them, were in place a number of years before the 2006-2007 disaster period for ratings accuracy. By the time the influence of any conflicts of interest could have been felt, the inherent mechanical flaws with the ratings systems were already at work generating seriously flawed ratings, which in turn created increased demand for CDO securities, further inflating U.S. housing prices. Had managers at the CRAs had the proper incentives to rigorously question

115. Cf. Sam Jones, *When Junk Was Gold*, FIN. TIMES MAGAZINE, Oct. 18, 2008, at 16.

the efficacy of their ratings models and the veracity of the data supplied to them by structured finance issuers, and to stop sponsors from manipulating the ratings models when it appeared that they were doing so, the damage from flawed ratings most likely would have been lessened. However, the fundamental importance of the mechanical flaws in the ratings models, as well as the fact that the flawed ratings models were operative long before the CDO sponsors began to engage in widespread manipulation, argues for the models themselves as the germ of the ratings disaster, not human decisions motivated by a desire to please paying clients.

What evidence is there to support this position? First, a remarkable study that tested conflicts of interest in CDO ratings came to an equivocal conclusion on the question of whether conflicts of interest resulted in more inaccurate ratings. Anna Katherine Barnett-Hart's study, "The Story of the CDO Meltdown: An Empirical Analysis," included a test of conflicts of interest in the assignment of credit ratings by the CRAs.¹¹⁶ Her Hypothesis 3F, "Conflicts of Interest," tests whether "[c]onflicts of interest caused by the fee system of credit ratings would result in more aggressive initial ratings, subsequently more downgrades, and worse accuracy in predictions for the CDOs of large underwriters."¹¹⁷ In her study she ran regression analyses on data from 735 U.S. CDOs issued from January 1999 through March 2009. The results for Hypothesis 3F were equivocal; bigger underwriters did receive higher initial amounts of securities rated AAA, as one would expect in a conflicted environment, where CRAs competed for issuers' business.¹¹⁸ This is mitigated however by the fact that the "most prolific underwriters were producing worse CDOs," so that even if they were treated the same as other underwriters, their CDOs suffered greater downgrades during the crisis.¹¹⁹ Barnett-Hart concludes that:

Given the striking uniformity of initial CDO credit ratings and the fact that the prediction value of the asset credit ratings depended mainly on the quality of the underwriter, the latter explanation seems more likely, suggesting that the conflicts of interest [are] not as

116. See generally Barnett-Hart, *The Story of the CDO Market Meltdown*, *supra* note 105.

117. *Id.* at 45.

118. *Id.* at 79.

119. *Id.*

much to blame as simply a failure to distinguish among underwriter quality.¹²⁰

Among Barnett-Hart's advisors at Harvard were Efraim Benmelech and Jennifer Dlugosz, who themselves carried out an interesting study of 3,912 collateralized loan obligation tranches with the provocative title "*The Alchemy of CDO Credit Ratings*."¹²¹ Benmelech and Dlugosz found that 70.7% of the securities by dollar value possessed a credit rating of AAA, while the weighted average credit rating of the collateral supporting these securities was only B+.¹²² Furthermore, they observed a deterioration of credit quality over time, with 2006 and 2007 vintage CDOs having lower quality collateral.¹²³ Benmelech and Dlugosz conclude that "[a]s is typical in structured finance products, there is a gap between the credit ratings on the notes issued by CDOs and the credit quality of the underlying collateral."¹²⁴ The ratings models were the mechanism by which this alchemical transformation occurred. The comments of Federal Reserve Bank economist Adam Ashcraft on Benmelech and Dlugosz's study are noteworthy.¹²⁵ While not ruling out "dishonest mistakes" on the part of the CRAs, Ashcraft believes the nature of structured finance instruments themselves contributed to the errors the CRAs made and that "honest mistakes go a long way towards explaining how we got into this mess."¹²⁶ Ashcraft points out that because mortgage-backed securities are a static pool, as opposed to a dynamic corporate enterprise, systemic economic factors such as home price appreciation and employment levels assume much greater importance in assessing their risk than with a single corporate enterprise. Any errors relating to macroeconomic forecasting and the ratings

120. *Id.* For an article in the legal literature coming to a similar conclusion, see Clair A. Hill, *Why Did Rating Agencies Do Such a Bad Job Rating Subprime Securities?*, 71 U. PITT. L. REV. 585 (2010). Professor Hill argues that the conventional conclusion that conflicts of interest caused the CRAs to issue flawed ratings "cannot be correct or even nearly so." The alternative account she offers instead is that the ratings agencies "drank the Kool-Aid," really believing that the new structured finance securities constructed by the "quants" at the investment banks conquered risk. *Id.* at 597-598.

121. Benmelech & Dlugosz, *supra* note 41, at 618, 626-29.

122. *Id.* at 628.

123. *Id.*

124. *Id.*

125. Adam B. Ashcraft, *Discussion of Alchemy of CDO Ratings*, 56 J. MONETARY ECON. 635 (2009).

126. *Id.* at 636.

models thus have great effect on the credit ratings, while analyst judgment is not so important.

Within this universe of errors, three stand out as crucial failures, which, operating in conjunction with one another, appear strong enough to explain ratings failure.

1. Collateral Quality

As discussed above in Part I.C.1, “Risky Collateral,” the credit quality of the collateral in CDOs backed by residential real estate suffered a great decline, particularly at the peak of the housing boom, in 2006 and 2007. Subprime issuance in 2001 stood at \$190 billion, out of a total of \$2.1 trillion total mortgage loans, or 8.9%.¹²⁷ Subprime issuance peaked in 2005 at \$625 billion, out of a total of \$2.7 trillion mortgage loans, or 22.5%. Of these subprime loans, the percentage of full documentation loans fell from 76% in 2001 to 63% in 2005.¹²⁸ Mortgages without full documentation of pay stubs and income history would be much more likely to be subject to fraud and misreporting than mortgages issued in a traditional lending setting with rigorous screening of applicants. As noted above, The Financial Crisis Inquiry Commission reported substantial pressure on mortgage brokers to originate loans in order for their companies to feed to the structured finance operations of the Wall Street investment banks, and the SEC found significant evidence of fraud in the mortgages underlying CDOs when it conducted a study of CDO collateral cited in its 2008 Summary Report on the CRAs.¹²⁹ In addition to the pressure on brokers to originate loans, which incentivized mortgage fraud, structural differences between subprime and traditional fixed-rate mortgages made subprime mortgages relatively riskier than fixed-rate mortgages, as Gary Gorton details.¹³⁰ The combination of mortgage fraud, possible indications of credit quality going unnoticed because of different levels of information gathered by lenders and mortgage purchasers and structural sensitivity to macroeconomic conditions combined to create risky collateral. It is

127. See Ashcraft & Schuermann, *supra* note 51, at 2 (Table 1, “Origination and Issue of Non-Agency Loans”).

128. See Demyanyk & Van Hemert, *supra* note 62, at 7 (Table 1, “Loan Characteristics at Origination for Different Vintages”).

129. See *supra* note 66 and accompanying text.

130. See *supra* text accompanying notes 67-71.

now apparent that the CRAs were either unable to identify or ignored these weaknesses.

2. Faulty Correlation Figures

Along with default probability and recovery rates, correlation is one of the key parameters to assessing the credit risk of any pooled investment. “Correlation” is the likelihood that one asset in the collateral pool will default in the event another one does; if the likelihood that B will default if A does is 50%, correlation will equal 0.50, but if it is certain that B will default in the event A does, correlation will equal 1.¹³¹ Underestimation of the correlation figures in the asset pools of structured finance securities therefore was a critical error, as it meant that the likelihood that one borrower would default on his mortgage when his neighbor across the street did so was underestimated.

How did the CRAs and investment banks compute correlation for the assets in the asset pools of structured finance securities, and why did they underestimate it? The story of the computation of correlation figures is a crucial element of the explosion of structured finance on Wall Street during the first decade of the 2000s. The formulation and dissemination of an easily usable correlation formula allowed investment banks and credit rating agencies to price structured finance tranches much more effectively—or so it seemed at first.¹³² In 2000, David X. Li, a banker with a Ph.D. in actuarial science working at the Canadian Imperial Bank of Commerce, published *On Default Correlation: A Copula Function Approach* in the *Journal of Fixed Income*.¹³³ Li proposed a method of using statistical price data to estimate the likelihood of default correlations between assets that used a Gaussian copula approach.¹³⁴ For assets such as residential mortgages, the formula allowed the price of insurance on such mortgages—in the form of credit default swaps on RMBS bonds—to substitute for actual

131. See the illuminating discussion of correlation in Salmon, *Recipe for Disaster*, *supra* note 5.

132. See Salmon, *Recipe for Disaster*, *supra* note 5; TETT, *FOOL’S GOLD*, *supra* note 104, at 120-122.

133. See Li, *supra* note 17.

134. See generally Donald MacKenzie, *End-of-the-World Trade*, LONDON REV. BOOKS, May 8, 2008, at 24-26.

data on defaults.¹³⁵ Insurance on such defaults was a useful proxy because of the lack of historical data on mortgage defaults.

Several flaws to this approach eventually undermined it. First, the CDS data that was available stretched back only to the 1990s, when CDSs began to be sold on RMBSs.¹³⁶ During this short time frame, home prices had only risen on a national basis, not fallen, and in a rising market the amount of defaults will be lower than in a stagnant or falling one.¹³⁷ The cost of insurance on such mortgages would be low, reflecting a relatively low risk of default. In addition, this data preceded the development of newer forms of mortgages such as ARMs or IOs, which allowed riskier borrowers to own a home.¹³⁸ But the structure of these mortgages differed in key ways from the traditional fixed-rate mortgage, as noted above.¹³⁹ As a result, the risk inherent in the subprime and Alt-A mortgages that proliferated during the housing boom was much greater than in the bulk of the mortgages that had been used until then.

A second glaring flaw connected to the use of the Guassian copula approach came with the development of synthetic CDOs at the height of the boom, in 2005 and 2006.¹⁴⁰ At this point, demand for mortgages was so voracious that sponsors could not find enough collateral to put in the pools.¹⁴¹ To replicate the payouts from RMBSs, sponsors took to selling CDSs referencing the mortgage bonds.¹⁴² The CDS seller would receive, in return for agreeing to cover any losses on the reference asset, an upfront payment as well as periodic payments thereafter; essentially, payments for insuring the bond.¹⁴³ Because the payments were keyed to

135. See Salmon, *Recipe for Disaster*, *supra* note 5.

136. See *id.*

137. See Zimmerman, *supra* note 63, at 8-10; GORTON, SLAPPED BY THE INVISIBLE HAND, *supra* note 2, at 81.

138. While subprime lending developed on a wide scale in the 1990's, newer mortgage forms such as ARMs and IOs were introduced after 2000 in order to meet the affordability challenge that rising home prices presented to buyers. See Zimmerman, *supra* note 63, at 8-10; see also Coval et al., *The Economics of Structured Finance*, *supra* note 15, at 15.

139. See *supra* notes 67-71 and accompanying text.

140. See generally Whitehouse, *supra* note 18, at A1.

141. See TETT, FOOL'S GOLD, *supra* note 104, at 299 (quoting former J.P. Morgan lawyer Andrew Feldstein); Crouhy et al., *supra* note 44, at 17.

142. Crouhy et al., *supra* note 47, at 17; see also the FCIC REPORT, *supra* note 1, at 142-143.

143. See *CDOs in Plain English*, *supra* note 40, at 5.

the health of the reference asset, a “synthetic” CDO could be constructed with CDSs substituting for actual bonds in the collateral pool. The effect of widespread selling of CDSs on RMBS and other structured finance securities, however, would have been to drive down the price of CDSs.¹⁴⁴ When such prices were used in correlation formulae, they would underestimate the riskiness of such assets, as this insurance was in effect sold too cheaply.¹⁴⁵ On multiple levels therefore, the data used in the correlation formulae underestimated the risk of default.

The Gaussian copula formula thus appears to be an example of a model that ends up shaping financial reality in its attempt to measure it.¹⁴⁶ By ignoring the limitations of the formula’s approach, which its author and others were well aware of,¹⁴⁷ banking and CRA personnel further inflated the housing bubble by underpricing the risk inherent in the very securities they were rating, and consequently pricing, as they used the Gaussian copula approach to do so.

3. Ratings Arbitrage

The overoptimistic correlation figures used in the ratings formulae are a purely mechanical, quantitative cause of flawed ratings. They are so important that a number of commentators focus on them as the key to ratings failures.¹⁴⁸ The flaws in the underlying collateral that went into first-tier structured finance securities, which were then re-securitized in

144. See Colleen Marie O’Connor, *Synthetic ABS Indexes Attracting a Crowd Introduction of CMBX Offers Another Way to Take Punts on Real Estate*, INV. DEALERS’ DIG., Mar. 13, 2006 (the effect of collateral managers investing in ABX.HE-type indices would have to be taken into account in CDO ratings). For general discussions of the credit expansion during the housing boom and its effect on perceived risk, see Bruce I. Jacobs, *Tumbling Tower of Babel: Subprime Securitization and the Credit Crisis*, 65(2) FIN. ANALYSTS’ J. 17, 23 (2009) (internal citation omitted), and Hyun Song Shin, *Securitisation and Financial Stability*, 119 THE ECON. J. 309 (2009).

145. See Whitehouse’s prescient discussion, *supra* note 18, about the temptations to hedge fund managers and others to sell credit default swaps for use in CDOs without fully understanding the risk involved. AIG also fell into this trap with sales of CDSs on CDOs by its infamous Financial Products unit. See TETT, FOOL’S GOLD, *supra* note 104, at 72-73; Mollenkamp et al., *supra* note 56.

146. See DONALD MACKENZIE, AN ENGINE, NOT A CAMERA: HOW FINANCIAL MODELS SHAPE MARKETS 12-35 (MIT Press 2006).

147. See Whitehouse, *supra* note 18 (quoting David Li and Darrell Duffie).

148. See *supra* note 93.

CDOs backed by RMBS, are primarily attributable to the mortgage brokers and then the investment banks which placed the assets into collateral pools, not the CRAs. At least until widespread doubts began to surface concerning whether the American real estate market was in fact in a bubble, then, it seems to me that the CRAs are guilty only of failing to examine the mortgages and other collateral backing the complex securities they rated and of being complacent about their ratings methods, i.e., turning away from any rigorous examination of the assumptions and data used in their models. In early years of the 2000s, on the other hand, they do not appear to have consciously colluded with sponsors to produce overoptimistic ratings.¹⁴⁹ Faulty correlation figures and low collateral quality themselves could fundamentally skew the validity of ratings to such a degree as to make them unreliable. In addition to these two failings, however, the first of which was purely mechanical, CDO sponsors actively engaged in a process of arbitrage.

The third central quantitative flaw of the ratings system, ratings arbitrage, arose when CDO sponsors realized that the value of certain assets as categorized by the ratings models differed from the value of the same assets in the financial markets or as packaged in different structured finance vehicles. The ratings models therefore offered CDO sponsors valuable arbitrage opportunities. As with the flaws in the underlying collateral discussed above, the CRAs do not appear to bear primary responsibility for the ratings arbitrage that fundamentally corrupted the ratings system insofar as they merely constructed models

149. As I go on to emphasize, this is not to deny that there were incidents reported during 2005 and after which suggest the CRAs turned a blind eye to suspicions that sponsors were gaming their models, or even that they enabled sponsors to do so in the later stages of the real estate bubble. *See, e.g.*, the emails discussed in the SEC 2008 SUMMARY REPORT, *supra* note 51, at 12-14, 24-26. The only emails from 2004 discussed in this SEC report concern awareness that a particular agency was taking actions that could jeopardize its market share in structured finance ratings. For allegations that the CRAs were in fact colluding with the investment banks prior to 2005, see *Abu Dhabi Commercial Bank v. Morgan Stanley & Co.*, 651 F. Supp. 2d 155, 178 (S.D.N.Y. 2009) (ratings for Cheyne SIV issued in summer 2004). I simply argue that both the temporal and causal origins of the flawed ratings are in the flawed quantitative systems, not any predetermined plan to collude with sponsors to produce securities with high ratings that the parties knew would fail. After flawed ratings began to produce massive revenue streams for both sponsors and the CRAs, the temptation to game the system on the one hand, and to enable this manipulation on the other, was too great to resist. Therefore, conflicts of interest are a contributing secondary cause of ratings failure.

attempting to gauge the riskiness of complex securities. It was the investment banks sponsoring the transactions that first discovered how to game the system and began to do so.¹⁵⁰ That said, the CRAs eventually came to realize that sponsors were gaming the ratings models and appear to have facilitated such activity.¹⁵¹ If this view of ratings arbitrage is correct, conflicted behavior after the point at which the CRAs had become aware that their models offered their clients valuable arbitrage opportunities would bear responsibility for flawed ratings. In order to achieve an accurate understanding of the ratings fiasco, though, it is important to emphasize that ratings arbitrage and the CRAs conflicted response to it was 1) an opportunistic exploitation of an underlying mechanical flaw in the ratings systems, and 2) was subsequent in time to the pre-existing flawed operation of the ratings system.

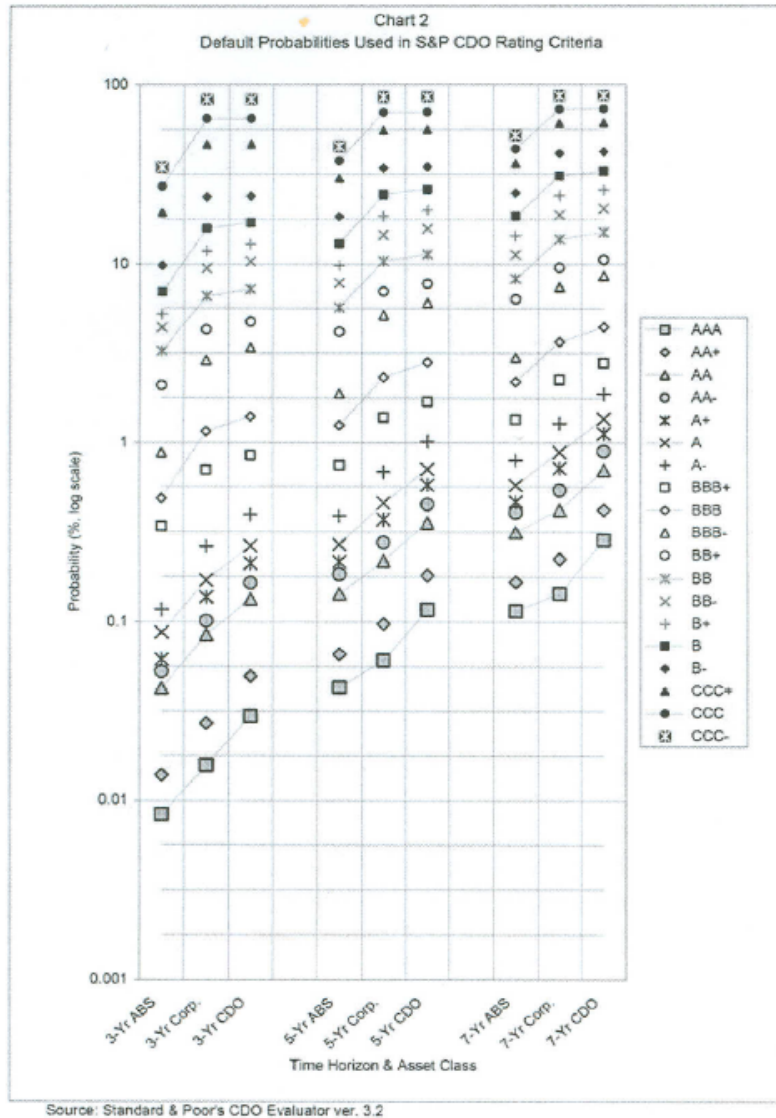
How did ratings arbitrage take place? It appears to have operated on both “gross” and “fine” levels. First, the most basic type, gross arbitrage, arose out of variances in default probabilities across asset categories, as captured in the following chart put out by Nomura based on data by Standard & Poor’s:¹⁵²

150. See, e.g., Louise Storey, *Prosecutors Ask if 8 Banks Duped Ratings Agencies*, N.Y. TIMES, May 13, 2010, at A1 (discussing allegations that ratings arbitrage began with the investment banks).

151. See Lowenstein, *supra* note 88 (quoting a former Moody’s employee as saying that “[e]very agency has a model available to bankers that allows them to run the numbers until they get something they like and send it in for a rating.”); see also Benmelech & Dlugosz, *supra* note 41, at 632 (Figure 7, reproducing page from S&P’s CDO Evaluator Handbook, Version 3.0 (2006) that states, in reference to Excess Collateral, “[t]his tells what percentage of asset notional needs to be eliminated (added) in order for the transaction to provide *just enough* (i.e. ROC equal to 100%) support at a given level.”).

152. Mark H. Adelson, *Bond Ratings Confusion*, NOMURA FIXED INCOME RESEARCH 8, (June 29, 2006), available at www.securitization.net/pdf/Nomura/Nomura_Bond_Rating_Confusion_Update.pdf (Exhibit 4, “Default Probabilities Used in S&P Ratings Criteria”). Mason & Rosner also use this chart to support their discussion of ratings arbitrage, *supra* note 36, at 66-68 (“Ratings Arbitrage: CDO Ratings Methods Are Looser than RMBS Ratings Methods, Even When CDOs are Solely made up of RMBS”).

FIGURE 27: DEFAULT PROBABILITIES USED IN S&P CDO RATING CRITERIA



The chart above illustrates that, for a given rating, asset-backed securities (first-tier SF securities) had the lowest default probabilities, followed by corporate bonds and then CDOs. This discrepancy in the meaning of the same ratings as applied to different types of bonds meant that converting one type of bond to another could result in a different, and potentially more lucrative, rating for the same underlying assets. In

particular, converting short-term ABSs to long-term CDOs resulted in a substantial increase in the credit rating. For example, in the chart above, a 3-year ABS with a credit rating of BBB would have an estimated default probability of 0.7%, but if packaged into a 7-year CDO, it could garner a rating of AA, which has an estimated default probability of 0.8%. In their discussion of ratings arbitrage, Mason & Rosner conclude that the “ability to repackage financial securities and call them something else, with no fundamental change to their risk characteristics, in order to achieve an improved bond rating is the fundamental source of ratings arbitrage.”¹⁵³

The second type of arbitrage operated in a more subtle manner, where there was a mismatch between the rating assigned to a particular asset and its price. Because the ratings for structured finance tranches relied on the ratings of the assets in the asset pool, if the marketplace recognized that an asset was distressed in some way, yet the ratings agencies did not (they were often slow to downgrade bonds, for example), CDO sponsors could convert that mismatch into value. Frank Partnoy discusses the example of GM and Ford bonds, which sold at low prices relative to their credit ratings in May 2005 because financial markets recognized their distress before the CRAs did.¹⁵⁴ The mismatch allowed CDO sponsors to convert low quality collateral to higher quality CDO tranches because investors were fooled by the package these assets came in—the CDO securities with ratings attached. The mismatch allowed CDO sponsors to select assets with prices reflecting their flaws but which had not (yet) been downgraded, place them into CDOs and then pocket the difference. The ratings given by the CRAs functioned as seals of approval for low quality assets.

Ratings arbitrage was primarily the result of issuers learning how to game the system set in place by the CRAs. Yet eventually, the CRAs appear to have done more than turn a blind eye to ratings arbitrage: they likely encouraged it. First, the ratings process was iterative—sponsors approached the agencies with the details of a proposed transaction, including the tranches to be issued, payment waterfalls and attachment points, types and amounts of collateral, the collateral manager and other important details of a CDO.¹⁵⁵ The CRAs would then issue preliminary

153. Mason & Rosner, *supra* note 36, at 68.

154. Partnoy, *How And Why Credit Ratings Agencies Are Not Like Other Gatekeepers*, *supra* note 26, at 80 (citing Whitehouse, *supra* note 18).

155. See Gretchen Morgenson & Lousie Storey, *Rating Agencies Shared Data, And Wall St. Seized Advantage*, N.Y. TIMES, Apr. 24, 2010, at A1 (describing the extent to

ratings.¹⁵⁶ These preliminary ratings functioned as a guide to the sponsors in constructing a CDO that also allowed them to maximize the difference between the cost of the collateral and the value of the tranches of CDO securities to be issued, engaging in the second type of arbitrage. Indeed, the CRAs appear to have understood this, as an excerpt from Standard & Poor's CDO Evaluator Handbook, Version 3.0, indicates. Next to the heading "Excess Collateral," which provides crucial credit enhancement in a CDO, but which is costly for the sponsor to provide, Standard & Poor's states: "This tells what percentage of asset notional needs to be eliminated (added) in order for the transaction to provide *just enough* (i.e. ROC equal to 100%) support at a given rating level."¹⁵⁷ At this point it appears the CRAs were guiding their structured finance clients in gaming the ratings system they had constructed. It was widely known that the investment banks were engaging in ratings arbitrage, as personnel at the banks labelled the practice as such, and it would be unlikely that CRA personnel were unaware of the opportunities their models offered to clever bankers.¹⁵⁸

Here we reach the point at which the primary cause of flawed quantitative models and data bleeds over into the secondary cause of conflicts of interest at the CRAs. It could be argued that since the reaction to any purely mechanical flaws ultimately determined whether or not flawed ratings were produced, conflicts of interest are actually the root cause of ratings failure. An argument against this view is that the ratings systems and structured finance industry developed organically over the course of a decade, with certain developments and changes leading to further responses in a pattern of mutual interaction. For example, David X. Li's Guassian copula function enabled structured finance to take off in the first years of the decade. Low interest rates in the wake of September 11, 2001 gave further fuel to rising housing

which the CRAs collaborated with CDO arrangers); Mason & Rosner, *supra* note 36, at 13 ("[I]n structured finance, the rating agency is an active part of the structuring of the deal."); Partnoy, *How And Why Credit Ratings Agencies Are Not Like Other Gatekeepers*, *supra* note 26, at 79 (investment banks structuring the CDO run the mathematical models and then present CRAs with results).

156. See *supra* text accompanying notes 85-86.

157. Benmelech & Dlugosz, *supra* note 41, at 632 (Figure 7, reproducing page from S&P's CDO Evaluator Handbook, Version 3.0 (2006)) (emphasis in original).

158. See Storey, *supra* note 150 (discussing use of the term "ratings arbitrage" at Goldman Sachs); see also James Lumley, *Barclays Used Credit Ratings 'Arbitrage' for CDOs*, *Court Told*, BLOOMBERG BUSINESSWEEK, Mar. 19, 2011.

prices, as mortgage interest rates were lowered.¹⁵⁹ By 2005, the shortage of mortgage bonds in the marketplace led to the explosion of synthetic CDOs referencing real estate bonds. It is likely that within this pattern, sponsors discovered commercial advantages such as discrepancies between the market price and the value of a rating assigned to the same asset in a gradual process of trial and error, and then began to exploit them. Furthermore, it is likely that when correlation numbers were first generated using CDS prices only going back to the 1990s, since there was no other data available, this was a plausible technique that seemed to generate a reliable figure. On the other hand, when the CRAs were using the same techniques six years later at the height of the spectacular boom in structured finance issuances and the American real estate market, it is implausible that they were unaware of the ways in which their ratings systems were being manipulated to create such a massive bubble.

Part II considers the implications of this view for IRCRA. Part I.E next inquires into the theoretical and practical implications of the informational failures of CDOs and their ratings.

E. THE IMPLICATIONS OF CDOs AS INHERENTLY FLAWED

Given the difficulties in obtaining an accurate picture of the true risk embodied in a CDO's collateral pool, it is now clear that investors were purchasing securities they believed were much less risky, and hence more valuable, than they really were. In economic terms, investors possessed incomplete information concerning the assets they purchased. Because these securities were relatively new, and very complex—at least in the forms proliferating in the past decade, such as CDOs backed by subprime RMBSs, CDOs-squared, and synthetic CDOs—financial markets participants lacked the experience necessary to properly understand them; in particular, there was no track record indicating how the new securities would perform under declining conditions in the housing market and the economy as a whole.¹⁶⁰ The events of 2007 and 2008 illustrate that real estate-backed CDOs required not only that home prices not fall, but that they continue to rise, i.e.,

159. See Brunnermeier, *supra* note 2, at 77; the FCIC REPORT, *supra* note 1, at 5, 88, 443 (dissenting statement of P. Wallison and A. Burns).

160. See Salmon, *Recipe for Disaster*, *supra* note 5; Coval et al., *The Economics of Structured Finance*, *supra* note 15, at 15.

these CDOs were only viable in the context of an inflating housing bubble that would support their collateral.¹⁶¹ Investors were not aware of this at the time of course, and so they embraced a wide variety of structured finance products, many of which, the real estate-backed CDO tranches in particular, soon experienced severe price declines.¹⁶² Due to their complexity and the tendency for information to get lost within them, in hindsight real-estate backed CDOs at least were fundamentally flawed investments.

Within economics the study of the problem of informational failures stems from George Akerlof's famous paper *The Market for Lemons: Quality Uncertainty and the Market Mechanism*.¹⁶³ Looking at the markets for structured finance securities in the wake of their crash, this section presents the following analysis: CDOs embody a substantial lemons problem, but until the financial crisis buyers were not aware of this problem. Rather, CDOs were what I term "lemons in disguise." Contrary to pre-crisis explanations for CDOs, which theorize that structured finance securities overcome a lemons problem, in hindsight it is clear the informational problems inherent in certain types of CDOs (e.g., CDOs backed by subprime mortgages) swamp whatever informational problems they may solve or other economic efficiencies they offer.¹⁶⁴ The CDO structure embodies a potential lemons problem

161. See *supra* notes 67-71 and accompanying text.

162. See David Reilly, *Merrill Bites Credit Bullet; Thain's CDO Sale Could Inspire Peers to Join Bloodletting*, WALL ST. J., July 30, 2008, at C.16.

163. 84(3) Q. J. ECON. 488 (1970).

164. As discussed below, this analysis differs substantially from sunnier explanations for CDOs offered prior to the crisis, where CDOs were thought to overcome a lemons problem. See, e.g., Peter M. DeMarzo, *supra* note 27, at 2-3. See generally Peter M. DeMarzo & Darrell Duffie, *A Liquidity-Based Model of Security Design*, 67 ECONOMETRICA 65; Hayne Leland & David Pyle, *Informational Asymmetries, Financial Structure, and Financial Intermediation*, 32 J. FIN. 371 (1977). In the legal literature, see generally Claire Hill, *Securitization: A Low-Cost Sweetener for Lemons*, 74 WASH. U. L.Q. 1061 (1996); Edward M. Iocabucci & Ralph Winter, *Asset Securitization and Asymmetric Information*, 34 J. LEGAL STUD. 161 (2005); Engle & McCoy, *supra* note 48, at 2054-63. The pooling and tranching structure was thought to overcome the lemons problem of individually flawed assets in a CDO's asset pool. What economists and legal scholars as well as investors were unaware of prior to the crisis is the extent to which flawed correlation figures, ratings arbitrage and flawed collateral corrupted the entire process, creating massive systemic risk that would swamp whatever risk from individual bad mortgages that CDOs were thought to overcome in these pre-crisis analyses.

itself because it is impossible on a practical level for investors to know the true credit risk of CDO securities.

Given the likelihood that this lemon problem is real, due to the severity of the informational flaws discussed in Parts I.C and I.D, it may be that certain segments of the structured finance marketplace will never return now that investors are aware of them. While as of Spring 2011 many segments of the American capital markets have returned to levels close to those before the credit crisis, structured finance issuances (with the notable exception of plain vanilla ABSs backed by government-insured mortgages) are a shadow of their former levels. Indeed, the worst affected category, U.S. issuances of RMBSs not backed by the U.S. government (“Non-Agency” RMBSs), has fallen to a mere \$12.1 billion for 2010, or 0.016% of its high of \$ 740.2 billion in 2005.¹⁶⁵

*1. Theoretical Implication: Real Estate-Backed
CDOs as “Lemons in Disguise”*

Part I.A above details the growth of the housing bubble and structured finance, and Part I.B sets forth the structural elements of the CDO. Information asymmetries are inherent in this story: mortgage lenders knew much more about the mortgages they offered than their borrowers did, particularly the ill-informed or disadvantaged borrowers in the subprime sector. In the CDO rating process itself, sponsors either turned a blind eye to the quality of the collateral they purchased from mortgage originators, or purposefully sought out the lowest quality, least expensive collateral that would still support a desired rating for a CDO’s tranches as a whole.¹⁶⁶ Of course, purchasers of the CDO tranches were unaware of these activities. At all the important stages in the CDO construction process prior to purchase, sellers had a much clearer understanding of the product on offer than buyers.

This situation is similar to the classic lemons problem that Akerlof explores in *The Market for Lemons*, with one crucial difference: until the real estate bubble popped, and the financial community gradually realized that real estate-backed CDOs were dependent on a rising market, not just a stable one, buyers do not appear to have been aware

165. *U.S. Mortgage-Related Securities Issuance*, SIFMA, <http://www.sifma.org/research/statistics.aspx> (last visited May 2, 2011).

166. *See supra* Part I.D.3 (discussing ratings arbitrage).

that some of the many products on offer were in fact lemons.¹⁶⁷ What is more, not all the sellers were aware of this, even though the astute ones were. As Gary Gorton points out, big players such as Citibank, UBS and Merrill Lynch suffered extensive losses in the subprime disaster.¹⁶⁸ On the other hand, hedge funds and investment banks that realized in 2005 and 2006 that the securitization of subprime would end in disaster profited handsomely, including Deutsche Bank, Goldman Sachs, John Paulson and others.¹⁶⁹

In his discussion of information asymmetries, Akerlof explains that in a market where sellers, but not buyers, have knowledge that some of the products on offer are worthless, trading in that market will cease. Imagine a used car market where 25% of the cars are worthless (value of \$0), while 75% have a value of \$4,000. The average value of a car will therefore be \$3,000, or $\$4,000 \times .75$. If buyers are aware that 25% of the cars are worthless, but not which specific ones, they will be willing to pay \$3,000 for a car in this market. According to Akerlof, sellers will not be willing to sell in such a market¹⁷⁰: a seller with a car worth \$4,000 will not be willing to let it go for \$3,000. As a result, trading in such markets will dry up.¹⁷¹ Of course, in the real world used cars do sell, though at a steep discount from their prices when new on the dealership lot. Sales only occur when the seller values the asset at a lower price than the buyer, despite the “lemons discount.”

Before the credit crisis, financial economists posited that structured finance securities existed as a mechanism to overcome a lemons problem. In *The Pooling and Tranching of Securities: A Model of Informed Intermediation*, Peter DeMarzo theorized that tranching securities solve the problem that an intermediary in the financial markets faces when it wants to sell numerous assets about which it has private

167. See generally, Frank Partnoy, *Ivar Kreuger, the Credit-Rating Agencies, and Two Theories about the Function, and Dysfunction, of Markets*, 26 YALE J. ON REG. 431 (2009); see also the FCIC REPORT, *supra* note 1, at 133; sources cited *infra* note 307..

168. GORTON, SLAPPED BY THE INVISIBLE HAND, *supra* note 2, at 138.

169. Kate Kelly, Gregory Zuckerman & Carrick Mollenkamp, *Ducking the Subprime Hit*, WALL ST. J., Nov. 14, 2007, at C1; Gregory Zuckerman, *Trader Made Billions on Subprime*, WALL ST. J., Jan. 15, 2008, at A1.

170. Akerlof, *supra* note 163, at 490.

171. See Akerlof, *supra* note 163, at 491.

information but the buyers do not, and the buyers know this.¹⁷² According to DeMarzo, the greater the amount of assets the intermediary wants to sell, the lower the average price it will receive for them, as buyers demand a lemons discount.¹⁷³ From the buyer's perspective, pooling the assets into a single-tranche security (such as a pass-through MBS) mitigates this, as the risk of buying any particular bad asset decreases. This is disadvantageous to the intermediary, as the value of any private information it holds is done away with, taking away the seller's option "regarding how aggressively to sell each asset."¹⁷⁴ DeMarzo terms this the "information destruction effect." If the intermediary tranches the payouts from the asset pool, however, a countervailing "risk diversification effect" arises as buyers realize the senior tranche(s) will contain very little credit risk, since the lower tranches will absorb all losses in ordinary economic circumstances.¹⁷⁵ The risk diversification effect will dominate over the information destruction effect as the asset pool grows, and sellers can further signal their faith in the securities by retaining a portion of the lower tranche securities.¹⁷⁶ The risk diversification effect is particularly strong where information the sponsor possesses is general to all assets in the pool, as opposed to knowledge specific to particular assets in the pool. DeMarzo's model of "informed intermediation" therefore explains the ABS structure as a mechanism that overcomes the information asymmetry between sellers and buyers of discrete financial obligations which are difficult for buyers to properly evaluate.¹⁷⁷

More recent theoretical and empirical studies call into question the "informed intermediation" model, however. Reflecting on the inherent complexity of actual CDOs, a group of computer scientists and an economist from Princeton University theorize that if buyers actually possess limited computational ability to investigate the make-up of the assets placed in the asset pools, as is true of real-world investors, the use

172. See DeMarzo, *supra* note 27, at 2-3. In this paper, DeMarzo draws on his earlier work with Darrell Duffie, as well as the work of Leland & Pyle. See DeMarzo & Duffie, *supra* note 164; Leland & Pyle, *supra* note 164.

173. DeMarzo, *supra* note 27, at 2 ("given its superior information, the intermediary faces a 'lemons' problem when it attempts to resell the assets, resulting in illiquidity: the price the intermediary receives for the assets is decreasing in the quantity sold.")

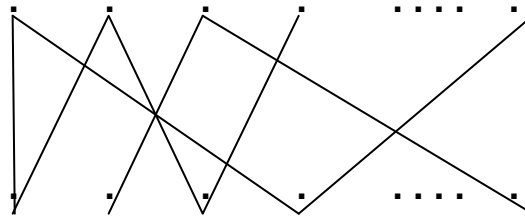
174. *Id.* at 3, 10.

175. See *id.* at 10-11.

176. *Id.* at 30.

177. *Id.* at 30-31.

of CDOs may actually increase lemons costs.¹⁷⁸ Using concepts from computer science, in *Computational Complexity and Information Asymmetry in Financial Products*, Sanjeev Arora, Boaz Barak, Markus Brunnermeier & Rong Ge argue that it is impossible for computationally limited buyers to detect when CDO sellers “cherry pick” inferior assets to place in the asset pools.¹⁷⁹ Assuming sellers are constructing multiple CDOs, and can select the assets most likely to default from a larger potential asset pool, the assets actually selected will create a “dense subgraph” of connection points. Arora et al. begin by drawing a “bipartite graph” to map out the relation between a set of tranches securities and a set of assets:¹⁸⁰



Arora, et al., Figure 1

In this bipartite graph, the top row represents M vertices corresponding to the individual CDOs, and the bottom row represents N vertices corresponding to the assets. The lines connecting them represent the reference of an asset (or inclusion in a collateral pool) by a CDO.

In a bipartite graph, a “dense subgraph” occurs where there is a higher-than-usual amount of nodal pairs or “edges.”¹⁸¹ A nodal pair represents a connection between the top line of the bipartite graph, representing an individual CDO along a line of CDOs, and a particular asset class (with a value known to the seller but not the buyer) on the bottom line of the graph; and so an edge indicates the selection of an asset for a CDO’s asset pool. When assets are selected at random from

178. Sanjeev Arora, Boaz Barak, Markus Brunnermeier & Rong Ge, *Computational Complexity and Information Asymmetry in Financial Products* (Working Paper, Oct. 19, 2009), available at <http://www.cs.princeton.edu/~rongge/derivative.pdf>.

179. *Id.* at 3.

180. *Id.* at 8.

181. Dense subgraphs can arise at random, but they will not occur with high probability. *Id.* at 9.

the larger set of possible assets, dense subgraphs may arise at random, but in cases of cherry-picking of assets from certain asset classes, such dense subgraphs will arise much more frequently. Arora et al. go on to demonstrate that buyers with “exponential” time to investigate the assets placed in asset pools will be able to discover the resulting dense subgraphs, but buyers with limited “polynomial” computational abilities will find the problem of uncovering these dense subgraphs computationally intractable: A fully rational, or unbounded, mind would be able to investigate all possible subsets of assets in a particular structured finance security to make sure that none were overrepresented in the collateral pool, which would indicate cherry-picking on the part of the seller.¹⁸² A buyer on the other hand “restricted to feasible (i.e. polynomial time) computation . . . cannot verify that the CDO was properly constructed.”¹⁸³

If Arora and his colleagues are correct, because real-world CDO investors are restricted in their computational abilities, CDOs allow their creators to select cheaper, lower quality assets as collateral, all the while hiding behind the inherent complexity of the structured finance vehicle. If CDO sponsors actually use them for this purpose, CDOs will in fact increase, not decrease, lemons costs, *contra* DeMarzo.¹⁸⁴ Such a result is a manifestation of investors’ bounded rationality, here seen in the inability of even sophisticated investors to carry out the computations necessary to uncover cherry-picking.

In addition to the theoretical reconsideration of whether the ABS model reduces lemons costs, there is also recent empirical evidence that MBSs in fact do add lemons costs. In *Is the Mortgage-Backed Securities Market a Market for Lemons?*, financial economists Chris Downing, Dwight Jaffee and Nancy Wallace studied Freddie Mac Gold Participation Certificates (“PCs”), MBSs backed by mortgages guaranteed by the government-sponsored Freddie Mac and Fannie Mae.¹⁸⁵ The PCs are MBSs that contain between 25 and 125

182. *Id.* at 4.

183. *Id.* at 5 (emphasis in original).

184. Note that Arora et al. discuss DeMarzo’s theory of informed intermediation, stating that in the case where an intermediary was selling only a single security, as opposed to many, and the buyer possessed the ability to perform exponential time computations, the tranching security would in fact reduce the costs of asymmetrical information. *See id.* at 7.

185. Chris Downing, Dwight Jaffee & Nancy Wallace, *Is the Market for Mortgage-Backed Securities a Market for Lemons?*, 22(7) REV. FIN. STUD. 2457 (2009).

mortgages.¹⁸⁶ PCs are assembled by mortgage originators, who bundle the mortgages together into single-tranche MBSs and then obtain CUSIP numbers for the securities.¹⁸⁷ Since mortgage originators possess extensive knowledge concerning the individual borrowers which buyers of the PCs do not, including factors indicating whether or not they are likely to efficiently (from the borrower's perspective) pre-pay the mortgage, there is an important information asymmetry present; in the event borrowers prepay, investors realize lower returns. After the PCs are formed, they can either be held by the originators or sold to other investors for use as collateral in tranching MBSs known as REMICs (real estate mortgage investment conduits).¹⁸⁸ Sales occur in the "to be announced" market, where the PCs to be delivered to purchasers are specified solely in terms of their average maturity and coupon of the underlying mortgages; some of the PCs purchased by investors are then repackaged into REMICs. By comparing price data from 1992 to 2002 on the PCs that were repackaged into REMICs and those that were not, Downing et al. found that PCs sold were priced in the range of \$0.27 to \$0.55, or an average of \$0.39 less per \$100.00 of principal than those not sold.¹⁸⁹ The authors interpret this as evidence of a lemons market: PC buyers knew that the sellers possessed information concerning the underlying mortgages that was not available to them, so buyers expected delivery of the lower-quality mortgages (which from the lenders' standpoint were ones that would not be refinanced efficiently) and they priced their bids accordingly.¹⁹⁰

186. *Id.* at 2462.

187. *Id.* A security's "CUSIP" number refers to its 9-digit alphanumeric code used for clearing securities transactions in North America. The acronym "CUSIP" stands for the Committee on Uniform Security Identification Procedures.

188. *Id.* at 2458.

189. *Id.* at 2487.

190. *See id.* at 2458. Supporting this conclusion is evidence that MBS underwriters exploited inside information when trading on their MBSs in the secondary markets. *See* Steven Drucker & Christopher Mayer, *Private Information and Market Making in Secondary Mortgage Markets* (Working Paper, Jan. 6, 2008), available at http://www4.gsb.columbia.edu/null/download?&exclusive=filemgr.download&file_id=16547; *see also* Benjamin J. Keys, Tanmoy Mukherjee, Amit Seru & Vikrant Vig, *Did Securitization Lead to Lax Screening? Evidence From Subprime Loans*, 125 Q. J. ECONOMICS 307 (2010) (finding that "[c]onditional on being securitized, the portfolio with greater ease of securitization defaults by about 10-25% more than a similar risk profile group with a lower probability of securitization.").

What significance do these reconsiderations of the pre-crisis explanations of structured finance securities have for the story of ratings failure? First, it is important to note that the position of Downing et al. is only a development of DeMarzo's theory. In positing that pooling and tranching is a mechanism to *overcome* a lemons problem, DeMarzo still begins from the fact that a lemons problem is central to the existence of CDOs. Nonetheless, his theory is optimistic in the sense that he sees the risk diversification effect as triumphing over the information destruction effect. Downing et al. can be seen as on the one hand merely developing this analysis by documenting the defects in the underlying collateral and demonstrating empirically that buyers perceive a risk in the mortgage pools that are offered for sale. On the other hand, by focusing on lemons costs that persist, Downing et al. draw attention to the defects in the underlying collateral. As discussed above, collateral quality deteriorated sharply as the housing boom matured.¹⁹¹ Buyers should have been skeptical of the goods on sale. The buyers in Downing et al.'s study were structured finance insiders, though, and the data studied was from 1992 to 2002.

In Downing et al.'s perspective there is a substantial lemons problem, and in the more radical perspective of Arora et al. there is an overwhelming one, on the level of the CDO itself. The CDO exacerbates an already-existing information asymmetry by allowing sponsors to unload faulty collateral. Since buyers do not possess detailed information on each asset in the asset pool, practically speaking they cannot independently assess the creditworthiness of the asset pools. (It even appears that the CRAs themselves often did not have access to the underlying loan data on the mortgages bundled into RMBSs that were then re-securitized in CDOs.¹⁹²) And even if purchasers possessed such information, in Arora et al.'s model, they could not determine whether the sponsors had purposefully chosen lesser quality assets from the entire universe of possible assets. While Downing et al. present evidence that certain Freddie Mac-backed MBSs already embodied a lemons cost, more research remains to be done on whether other structured finance securities include such a cost. In Akerlof's model of a lemons market, as

191. *See supra* Parts I.C.1, I.D.1.

192. Consider, for example, the well-known anecdote of Frank Raiter, a S&P employee who was told by his supervisor, Richard Gugliada, that his request to see the underlying loan information on the collateral in a CDO was "totally unreasonable!!!" Gretchen Morgenson, *House Panel Scrutinizes Rating Firms*, N.Y. TIMES, Oct. 23, 2008, at B1.

well as that of DeMarzo and Downing et al., lemons-costs arise when buyers and sellers possess unequal information about assets, and *buyers are aware* of this information asymmetry and demand an appropriate lemons discount.

The implications of Arora et al.'s paper are more radical: if we consider the general world of investors purchasing structured finance securities, who, unlike the purchasers of Freddie Mac PCs in Downing et al.'s paper, were not structured finance or real estate insiders, there is no intimation they suspected they were buying securities whose asset pools contained a large amount of default-prone assets. On the level of CDOs as a general asset class, it is now obvious that real estate-backed CDOs were lemons, but before the credit crisis they were lemons in disguise, so to speak. Buyers of these CDOs should have demanded a significant lemons discount, but they were unaware of the substantial information asymmetry embedded in them and failed to realize the opportunities for mischief that CDOs offered their sponsors. A partial explanation for the credit crisis then is the shock to the financial system as parties holding real estate-backed CDOs became aware of the informational flaws embedded within them.

2. *Practical Implication: The Current Market for Structured Finance Securities*

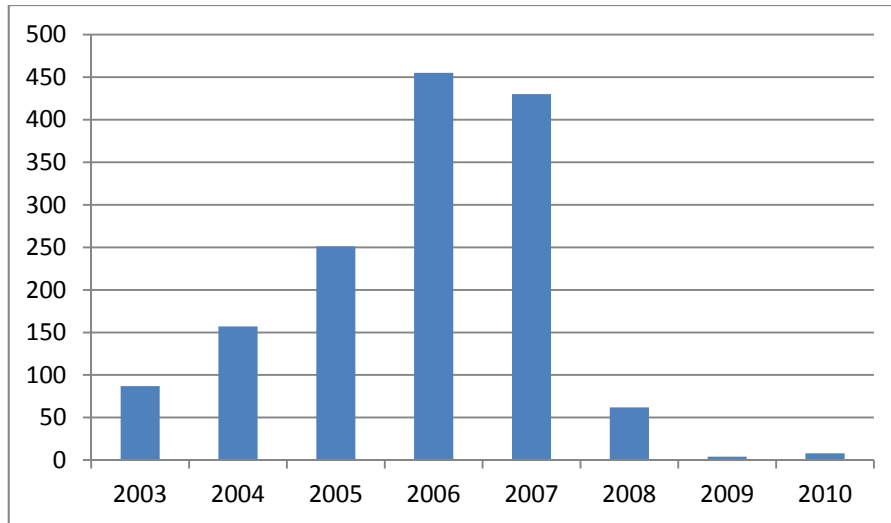
Turning to the financial markets in the wake of the crash, is there evidence that ABS CDOs were lemons in disguise? If investors were originally unaware of their flaws, after such information becomes widely disseminated, buyers should either demand an appropriate lemons discount for the class of securities containing a certain amount of lemons, or, if the price including the lemons discount falls below what sellers are willing to offer the securities at, trade will cease. Current evidence from the structured finance markets¹⁹³ supports the following propositions: 1) Real estate-backed ABS CDOs were so fundamentally flawed that no market in them will continue to function now that investors have become aware of their flaws. This means that the degree of ratings arbitrage, miscalculation of correlation and/or mortgage fraud in the collateral underlying real estate-backed CDOs was either so great that the economic benefits to sponsors and other supply-side market participants from these flaws were either the sole or

193. See *infra* notes 195-204 and accompanying text.

the dominant explanation for their existence, or the crash in value has made investors so skittish that they are not willing to even bid in the market for new real estate-backed CDOs. 2) Ratings arbitrage, however, does not explain the existence of structured finance securities in general, as certain areas of the structured finance markets continue to function, despite the radical drop-off in global CDO issuance as illustrated below. The three traditional accounts for pooling and tranching reviewed by DeMarzo then appear to possess some explanatory power, with structured finance securities accomplishing one or more of the following tasks: allowing access to markets, overcoming transaction costs or overcoming information asymmetries.¹⁹⁴ With phenomena as complex as structured finance securities, it may be the case that they accomplish multiple goals for market participants, at the same time that in the case of real estate-backed ABS CDOs, sponsors were able to game the rating system and exploit other weaknesses to such a degree that a fourth explanation, ratings arbitrage (and other forms of activity benefiting parties involved in the construction of CDOs, to the detriment of investors), swamped the effects of the first three with respect to this specific category of ABS.

Almost three years after the onset of the credit crisis, the issuance of structured finance securities outside of ABS securities of government-backed mortgages is miniscule compared to the amounts that flooded the market in the boom years of 2004-2007. Global CDO issuance is captured in the following chart of SIMFA data:

194. See DeMarzo, *supra* note 27, at 2.



Global CDO Issuance, in Billions of US Dollars

Source: SIFMA Global CDO Issuance¹⁹⁵

This chart illustrates that while not completely extinct, global CDO issuance of \$7.68 billion in 2010 is a mere 1.4% of the \$520.64 billion issued in 2006 when the market peaked. Of course it should be remembered that the term “CDO” here is used in its narrower meaning, signifying just a structured finance securitization that holds other structured finance securities (ABSs), CDSs (synthetic CDOs) or assets such as corporate loans or bonds.¹⁹⁶ Most importantly, global CDO issuance does not include first-tier securitizations of mortgages, either government-backed or ‘private label’ securities.

CDO issuance is therefore nearly, though not entirely, extinct.¹⁹⁷ Asset-backed securitization on the other hand exists at significant levels

195. SIFMA compiles data on activity in the financial markets. Data is available at www.sifma.org/research/statistics.aspx.

196. See Global CDO Issuance tbl. 1.4, SIFMA, www.sifma.org/research/statistics.aspx (Global CDO Issuance – Collateral). Collateral includes high-yield bonds, high-yield loans, investment grade bonds, mixed collateral, other, other swaps and structured finance, www.sifma.org/research/statistics.aspx (last visited March 31, 2012).

197. For more detail on the current CDO marketplace, see Katy Burne, *Global Finance: With a Deal From UBS, Signs of Life in Synthetic CDOs*, WALL ST. J., Nov. 26, 2010, at C3, and Ruth Simon, *Return of the ‘Private Label’—Market for Nontraditional Mortgage Securities Stirs, but Don’t Call It a Revival*, WALL ST. J., Apr. 2, 2010, at C1.

in the marketplace, though at steep dropoffs from the 2005-2007 period. SIFMA reports that total U.S. ABS issuance stood at \$107.49 billion in 2010, down from \$753.87 billion in the peak year of 2006, or 14.2% of the 2006 amount.¹⁹⁸ Of the 2010 collateral subcategories, auto loans stood at \$57.86 billion, student loans at \$17.72 billion, with credit cards, equipment loans and other loans making up the rest; home equity loans contributed only \$3.51 billion or 3.26% of the total.¹⁹⁹ In 2006, by contrast, home equity amounted to 64.19% or \$483.91 billion of the ABS collateral.

Separate from ABSs in the SIFMA reporting categories are MBSs, including securities backed by GNMA and FNMA loans, CMOs and non-government backed private label securities including both CMBSs and RMBSs. Here, issuance of government agency-backed MBSs has actually exploded in the wake of the recession, with \$2.02 trillion in agency MBSs issued in 2009 and \$1.92 trillion in 2010, up from \$1.24 trillion in 2006.²⁰⁰ After the financial crisis, investor interest in private-label MBSs is low; from a peak of \$909.40 billion in 2006 (and \$765.9 billion in 2007), private-label MBS issuance collapsed to \$18.10 billion in 2009 (a stunning 98.01% decrease!), recovering to \$34.60 billion in 2010.²⁰¹

These figures illustrate that securitization of U.S. real estate obligations not backed up by the U.S. government is far below its peak, and the more complex securities, CDOs, have nearly vanished. Conversely, categories of ABS not tied to real estate are still significant, though down considerably. Investors are obviously scared away from the categories of investments that caused so much carnage in the collapse, but healthy areas of securitization remain. Additional confirmation of the continued viability of securitization comes from SIFMA's "European Securitisation Issuance" chart.²⁰² Total European securitizations stood at \$514.92 billion for 2010, down only slightly from the 2006 level of \$566.36 billion though under half of the 2008

198. See U.S. ABS Issuance and Outstanding, SIFMA, www.sifma.org/research/statistics.aspx.

199. *Id.*

200. See U.S. Agency Mortgage-Backed Securities Issuance and Outstanding, SIFMA, www.sifma.org/research/statistics.aspx.

201. See U.S. Mortgage-Related Issuance, SIFMA, www.sifma.org/research/statistics.aspx.

202. See Europe Structured Finance Issuance and Outstanding, SIFMA www.sifma.org/research/statistics.aspx.

peak of \$1.095 trillion.²⁰³ RMBSs stood at \$367.92 billion, down from 2008's \$790.74 billion.²⁰⁴

What conclusions does this economic data point to? First, at least investors in U.S. securities do not trust real estate-backed securitizations not backed by the U.S. government. While other explanations are possible, such as the continued uncertainty about the proper prices of U.S. real estate and the health of the American economy in the near, medium and long terms, it is probable that investors mistrust the rating agencies that rated such debt and the sponsors and collateral managers purchasing collateral. The practices of ratings arbitrage and stuffing collateral pools with poor quality mortgages appear to have shuttered these markets. That said, the fact that securitization markets continue to function at significant levels indicates that ratings arbitrage wasn't the sole purpose of securitization. The misdeeds and mistakes of the past decade were manipulations of a very complex system that caused it to crash, but they appear to have been parasitic growths upon an already malfunctioning securitization market rather than its very *raison d'être*.²⁰⁵

II. THE RESPONSE: "IMPROVEMENTS TO THE REGULATION OF CREDIT RATING AGENCIES"

Given the huge losses in the U.S. and global economies as a result of the collapse of the housing bubble, flawed ratings came in for severe criticism as soon as the crisis began to unfold.²⁰⁶ Reform at the CRAs therefore became one of the central objectives of the drafters of the financial reform legislation in 2009. Ironically, while inflated ratings were a necessary if not sufficient cause of the credit crisis, a ratings

203. *See id.*

204. *See id.*

205. For a discussion of the commercial mortgage-backed securities market, and how investor behavior there may differ from other structured finance markets, see Robert A. Brown, *Financial Reform and the Subsidization of Sophisticated Investors' Ignorance in Securitization Markets*, 7 N.Y.U. J. L. & BUS. 105 (2010).

206. *See, e.g.*, Julie Creswell & Vikas Bajaj, *Bond Raters Make Effort to Repair Credibility*, N.Y. TIMES, Feb. 8, 2008, at C1; Gretchen Morgenson, *Debt Watchdogs: Tamed or Caught Napping?*, N.Y. TIMES, Dec. 7, 2008, at A1; Arthur Levitt, Jr., *Conflicts and the Credit Crunch*, WALL ST. J., Sept. 7, 2007, at A15; Kara Scannell & Aaron Lucchetti, *Crisis on Wall Street: SEC Tightens Rules for Ratings Firms*, WALL ST. J., Dec. 4, 2008, at C3.

reform bill had just been passed in 2006 in the wake of Enron's collapse and other accounting scandals of the early 2000s, when the agencies had maintained investment grade ratings on Enron debt until days before its bankruptcy.²⁰⁷ The "Credit Rating Agency Reform Act of 2006" ("CRARA"),²⁰⁸ which added Section 15E ("Registration of Nationally Recognized Statistical Rating Organizations") to the Securities Exchange Act of 1934, was meant to improve the ratings system primarily by regularizing the process of becoming a NRSRO, and thereby spurring competition in the ratings industry.²⁰⁹ CRARA also prohibited some of the more objectionable practices of the rating agencies, such as threatening to retaliate against issuers that did not use an agency for an issuance by downgrading other securities of that issuer, but it did not mandate fundamental change. Congress drew the line at regulating the actual methods used by agency analysts to rate securities, forbidding the SEC from regulating "the substance of credit ratings or the procedures and methodologies by which any NRSRO determines credit ratings,"²¹⁰ and likewise refused to consider any legislative mandates that would offer fundamental reordering of the credit rating industry or its business model.

Despite the national trauma of Enron, Worldcom and the other accounting scandals that led to the passage of Sarbanes-Oxley and CRARA, the consequences of the second wave of ratings failures in 2007-2008 were much more severe and the root causes much more complex. As argued in the previous section, activity in the current structured finance markets leads to the conclusion that multiple explanations for the existence of CDOs are likely to be valid, with ratings arbitrage dominating in CDOs backed by RMBSs, and the pre-crisis, conventional explanations holding sway in other areas of structured finance where activity remains at significant, albeit reduced, levels.²¹¹ Congress consequently faced a considerably more difficult task

207. See Arthur Levitt, Jr., *Conflicts and the Credit Crunch*, *supra* note 206, at A15.

208. The Credit Rating Agency Reform Act, Pub. L. No. 109-291, 120 Stat. 1327 (2006) (codified as amended at 15 U.S.C. § 78o-7(c)(2) (2006)) (adding Section 15E to the Securities Exchange Act of 1934).

209. The preamble to CRARA states that it is "[a]n Act . . . [t]o improve ratings quality for the protection of investors and in the public interest by fostering accountability, transparency, and competition in the credit rating agency industry." Preamble of the Credit Rating Agency Reform Act.

210. 15 U.S.C. § 78o-7(c)(2).

211. See *supra* Part I.E.2, text accompanying notes 195-204.

in 2009 when it returned to the issue of credit ratings, that of providing regulation to a hyper-complex system which very few individuals, including many with considerable financial experience, really understood, and which possessed the power to cast the U.S. economy into severe recession or even depression in the event of sustained malfunction. The result of Congress's efforts is Title IX, Subtitle C of the Dodd-Frank Act, "Improvements to the Regulation of Credit Rating Agencies."²¹² Part II provides an overview of IRCRA, focusing on provisions responding to the failures outlined in Part I.C above, and concludes with some reflections on the wider significance of the regulatory strategies IRCRA adopts.

While IRCRA goes further than CRARA in many important respects, like CRARA it does not fundamentally change the nature of the ratings industry, although the studies and proposals it requires of the SEC and the Government Accounting Office have the potential to do so should they lead to changes in the law. Instead of a fundamental reordering, at this point IRCRA should be seen as a further step along the road of oversight of the agencies. Indeed, its most important provisions do not even apply to the rating agencies directly: Section 939 removes references to credit ratings issued by NRSROs from six major provisions of federal financial law, and Section 939A calls for every federal agency to review its regulations and substitute its own standards of credit-worthiness for references to "credit ratings" within a year.²¹³ Should these provisions be definitively implemented, the resulting shift in the regulatory landscape will deprive the rating agencies of their ability to profit by granting "regulatory licenses," approvals necessary for issuers to sell debt securities that can be held by a wide range of investors, such as pension and mutual funds. It is also important the IRCRA does not attempt a direct assault on the root cause of ratings failure, the quantitative models that produced flawed ratings.

The mandates applicable to the rating agencies fall into three general categories: 1) Management of conflicts of interest; 2) enhanced disclosure; and 3) increased exposure to litigation risk. Part II reviews them in turn.

212. Dodd-Frank Act, §§ 931-939H.

213. *Id.* § 939.

A. MANAGEMENT OF CONFLICTS OF INTEREST

It is clear that the drafters of Dodd-Frank believed conflicts were central to the problems of the rating agencies, as the statement of Congressional findings at the beginning of Subtitle C includes them, and Subtitle C ends with a declaration that the SEC should do more to control them. Section 931(4), which details Congress's findings, states that:

In certain activities, particularly in advising arrangers of structured financial products on potential ratings of such products, credit rating agencies face conflicts of interest that need to be carefully monitored and that therefore should be addressed explicitly in legislation in order to give clearer authority to the Securities and Exchange Commission.²¹⁴

And the final section of IRCRA, section 939H, "Sense of Congress," states that:

It is the sense of Congress that the Securities and Exchange Commission should exercise the rulemaking authority of the Commission under section 15E(h)(2)(B) of the Securities Exchange Act of 1934 . . . to prevent improper conflicts of interest arising from employees of nationally recognized statistical rating organizations providing services to issuers of securities that are unrelated to the issuance of credit ratings, including consulting, advisory, and other services.²¹⁵

The Dodd-Frank Act therefore attempts to police conflicts at the rating agencies in an effort to eliminate the conflicts that contributed to the issuance of flawed ratings. The most important of the conflicts provisions are contained in Section 932, "Enhanced Regulation, Accountability, and Transparency of Nationally Recognized Statistical Rating Organizations."²¹⁶

First, Section 932(a)(4) mandates the separation of ratings activities from sales and marketing activities undertaken by a NRSRO. The SEC is required to "issue rules to prevent the sales and marketing considerations of a nationally recognized statistical rating organization from influencing the product of ratings by the nationally recognized

214. *Id.* § 931(4) (to be codified at 15 U.S.C. § 78o-7).

215. *Id.* § 939H.

216. *Id.* § 932.

statistical rating organization.”²¹⁷ These rules are intended to separate the business services provided by a “gatekeeper” from its necessary marketing efforts as an independent organization in a free-market environment, and are a response to a number of instances of marketing concerns influencing decisions concerning ratings of structured finance securities, as detailed in the SEC’s 2008 Summary Report.²¹⁸

In addition to sales considerations influencing the ratings process, IRCRA also takes aim at conflicts of interest arising from the desire of rating agency employees to attain potentially much more lucrative positions with issuers and certain other financial markets employers. Section 932(a)(4)’s “look-back requirement” mandates that in the event that any employee of a NRSRO leaves for employment with an “issuer, underwriter, or sponsor of a security or money market instrument” subject to a credit rating by the NRSRO, the NRSRO must review whether any conflict of interest influenced the rating, and revise such rating in the event that there was a conflict.²¹⁹ Furthermore, Section 932 adds Section 5 to 15E(h), requiring NRSROs to report to the SEC on certain employees obtaining employment with “any obligor, issuer, underwriter, or sponsor of a security or money market instrument” for whom the NRSRO has issued a credit rating in the past year.²²⁰ This new reporting requirement includes all employees within the past five years who directly participated in determining credit ratings for their new employers, those who supervised employees who did so and all senior officers. These employment-related provisions respond to the reports of numerous rating agency analysts leaving for much more highly compensated positions with other financial institutions, and the pressures and temptations facing those working for the rating agencies.²²¹ The look-back provision of new Section 15E(h)(4) also mandates SEC review of NRSRO compliance with the look-back requirement, as well as annual reviews of the codes of ethics and conflicts of interest policies of the NRSROs.²²²

New Section (p) of 15E establishes an “Office of Credit Ratings” within the SEC which has among its many duties an obligation to

217. *Id.* § 932(a)(4) (to be codified at 15 U.S.C. § 78o-7(h)(3)(A)).

218. SEC 2008 SUMMARY REPORT, *supra* note 51, at 23-29.

219. Dodd-Frank Act § 932(a)(4) (to be codified at 15 U.S.C. § 78o-7(h)(4)(A)).

220. *Id.* § 932(a)(4) (to be codified at 15 U.S.C. § 78o-7(h)(5)(A)).

221. *See* Lucchetti, *supra* note 84, at A1; Storey, *supra* note 150, at A1.

222. Dodd-Frank Act § 932(a)(4) (to be codified at 15 U.S.C. § 78o-7(h)(4)(B)).

actively monitor conflicts of interest: included within the items required for the annual review of each NRSRO is “the management of conflicts of interest” by the NRSRO.²²³ The Commission is also charged with issuing new rules mandating disclosure concerning the transparency of ratings performance,²²⁴ including a rule requiring that an NRSRO include “an attestation with any credit rating it issues affirming that no part of the rating was influenced by any other business activities, that the rating was based solely on the merits of the instruments being rated, and that such rating was an independent evaluation of the risks and merits of the instrument.”²²⁵ Finally, new Section (s) requires each NRSRO to disclose on a new form accompanying each credit rating “information relating to conflicts of interest” of the particular NRSRO.²²⁶

All the above provisions relate to disclosure of information concerning conflicts of interest, both to users of credit ratings and to the SEC. Like Sarbanes-Oxley, IRCRA also includes new mandates concerning corporate governance at the ratings agencies, which attempt to instill independence at the rating agency level itself. New Section (t), “Corporate Governance, Organization, and Management of Conflicts of Interest,” requires that at least one half of the board of directors of an NRSRO be independent, and that a user of ratings is included among the independent board members.²²⁷ In addition, the compensation of board members is not to “be linked to the business performance of the” NRSRO, and among the prescribed duties of the board is “the establishment, maintenance and enforcement of policies and procedures to address, manage, and disclose any conflicts of interest[.]”²²⁸

Section 932 then contains the new disclosure and governance provisions which are meant to police conflicts of interest at the CRAs. These provisions employ a common strategy of U.S. securities law, by mandating disclosure in the belief that investors and others in the financial markets can make their own investment decisions based upon the information revealed to them, as well as the more aggressive tactic of Sarbanes-Oxley, by actively interfering in the internal corporate

223. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(p)).

224. *Id.* § 932 (a)(8) (to be codified at 15 U.S.C. § 78o-7(q)(1)).

225. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(q)(2)(F)).

226. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(s)).

227. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(t)).

228. *Id.*

governance of the CRAs.²²⁹ Three additional provisions concerning conflicts of interest are important to note. Sections 939C, 939D and 939F all mandate studies of possible alternative ways of providing credit information to the markets which had been discussed and proposed in the run-up to the passage of Dodd-Frank.²³⁰ Section 939C requires the SEC to study the independence of the CRAs and how independence, or the lack of it, affects the CRAs' performance. The SEC is to report its findings to Congress within three years, along with any recommendations for improving the integrity of ratings. Section 939D requires the Government Accounting Office ("GAO") to study alternative means of compensating the CRAs for their services and to report back to Congress within 18 months.²³¹ The GAO study is meant to explore alternatives to the "issuer pays" business model, the most glaring example of a conflict of interest in the current ratings system.²³² Finally, Section 939F requires, among other things, the SEC to study "the feasibility of establishing a system in which a public or private utility or a self-regulatory organization assigns" ratings to the individual NRSROs.²³³ This is the descendant of the "Franken Amendment" proposed by Senator Al Franken which would have established such a ratings assignment system.²³⁴ This report is due within two years of Dodd-Frank's passage. If such a system was to be adopted, it would obviously have major effects on the provision of credit ratings; however, the feasibility of such a system is open to question.²³⁵

229. Disclosure as a central focus of U.S. securities law is expressed in the Supreme Court's statement that the fundamental purpose of the Securities Exchange Act of 1934 is to implement a "philosophy of full disclosure." *Santa Fe Industries, Inc. v. Green*, 430 U.S. 462, 477-478 (1977); see generally Elisabeth Keller & Gregory Gehlmann, *A Historical Introduction to the Securities Act of 1933 and the Securities Exchange Act of 1934*, 49 OHIO ST. L.J. 329 (1988). The Sarbanes-Oxley Act of 2003 represents a significant federalization of the law governing corporate entities. See, e.g., Roberta S. Karmel, *Realizing the Dream of William O. Douglas—The Securities and Exchange Commission Takes Charge of Corporate Governance*, 30 DEL. J. CORP. L. 79 (2005).

230. See, e.g., Aline van Duyn, *Dilemmas of reforming the rating agencies*, FIN. TIMES, June 11, 2010, at 23; Levitt, *supra* note 207; Mendales, *supra* note 19.

231. 15 U.S.C. § 78o-9, Note; Dodd-Frank Act § 939D.

232. See Lynn Bai, *On Regulating Conflicts of Interest in the Credit Rating Industry*, 13 N.Y.U. J. LEGIS. & PUB. POL'Y 253, 261 (2010).

233. Dodd-Frank Act § 939F.

234. See Coffee, *Ratings Reform*, *supra* note 54, at 32.

235. See *id.* at 34-35.

This review of IRCRA's provisions relating to conflicts of interest shows that reducing their effects was a central goal of the legislation.²³⁶ Given the analysis of flawed ratings presented in Parts I.C and I.D above, however, management of conflicts of interest will likely not be sufficient to prevent ratings failure in the future, as conflicts of interest were not the primary cause of the ratings disaster. Proper response to conflicts of interest will have significant beneficial effects, though, helping insulate the CRAs from improper responses to technical problems that arise in complex ratings systems, and incentivizing the production of objective ratings in the first place.

B. NEW DISCLOSURE REQUIREMENTS

As disclosure is a pillar of U.S. securities regulation, it is not surprising that IRCRA contains numerous new disclosure requirements concerning the ratings process, in addition to the new disclosure requirements for asset-backed securities contained in Subtitle D of Title IX of Dodd-Frank, "Improvements to the Asset-Backed Securitization Process."²³⁷ The fundamental premise behind the new requirements is the rationale for disclosure requirements in general: investors and users of ratings are sophisticated actors, and requiring issuers, or in this case, issuers of credit ratings, to disclose crucial information concerning the security that investors are contemplating purchasing, or the rating they may rely on, is essential to the efficient functioning of the financial markets. As long as issuers and ratings agencies provide the required information, and that information is truthful and complete, the responsibility shifts to the potential investor to evaluate it. The conflict of interest provisions requiring disclosure are set in the larger context of the following general disclosure requirements.

1. Office of Credit Ratings Annual Reports on NRSROs

New subsection (p) of 15E requires that the newly created Office of Credit Ratings ("OCR") within the SEC conduct yearly examinations of each NRSRO.²³⁸ These examinations cover a number of facets of the

236. Professor Coffee notes that the Dodd-Frank Act "straddles the gap" between reducing conflicts of interest and reducing the reliance of federal financial regulation on credit ratings as two primary avenues of reform. *See id.* at 3.

237. Dodd-Frank Act §§ 941-946.

238. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(p)).

rating agency's operations, including whether it is conducting business according to its stated policies, procedures and ratings methodologies; implementation of its ethics policy; corporate governance; the management of conflicts of interest; and internal supervisory controls, among other things.²³⁹ New section 15E(p)(3)(C) requires that the OCR issue an annual report to the public summarizing the findings of the examinations conducted, any response from the NRSRO concerning any material deficiency identified, and whether the NRSRO has addressed any deficiencies identified in previous annual examinations.²⁴⁰

2. Transparency of Ratings Performance

New rule 15E(q), "Transparency of Ratings Performance," requires each NRSRO to issue detailed public disclosure concerning each obligor, security and money market instrument it rates, as well as all subsequent changes to those ratings.²⁴¹ Rules issued by the SEC shall require that disclosures are comparable across NRSROs to ensure comparability; are clear enough to be used by investors with varying degrees of sophistication; include performance information from a wide variety of types of credit ratings, including ratings that have been withdrawn; and be published on the NRSRO's website as well as made available in writing.²⁴² Furthermore, each credit rating will now be required to include an attestation affirming that the rating was not influenced by other business activities of the NRSRO, that it was based solely on the merits of the instrument rated, and that it was an independent evaluation of such instrument.²⁴³

3. Disclosure of Changes in Ratings Methodologies

New Section 15E(r) requires the SEC to promulgate rules concerning the methodologies NRSROs use to rate securities.²⁴⁴ These new rules however will simply require approval by the board of directors of the ratings methods used by a NRSRO and that they be compatible with the stated policies of the NRSRO. Exchange Act

239. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(p)(3)(B)).

240. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(p)(3)(C)).

241. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(q)(3)).

242. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(q)(2)).

243. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(q)(2)(F)).

244. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(r)).

Section 15E(c)(2) remains in force, and the SEC does not have the power to actually dictate the “substance of credit ratings” or the methodologies used to generate them. NRSROs must also disclose to ratings information users the method used to generate any ratings, material changes to ratings methodologies, and discoveries of significant errors in a procedure or methodology or when a material change to a procedure or methodology is likely.²⁴⁵ This provision responds to a well-publicized incident concerning an error in the computer codes used by Moody’s to rate a very sophisticated type of CDO, the constant proportion debt obligation or “CPDO.”²⁴⁶ Upon discovering the error, Moody’s changed the ratings procedure on a going-forward basis, without however adjusting the flawed ratings already issued.

4. *Transparency of Credit Ratings Methodologies and Information Reviewed*

New section 15E(s) requires that each NRSRO issue a form with each credit rating which provides key information behind the rating and how it was produced, i.e., “the assumptions underlying the credit rating procedures and methodologies” and “the data relied on” to produce the rating.²⁴⁷ The format and content of the information report track closely central concerns with ratings of structured finance securities. First, in addition to being “easy to use and helpful,” the form must present its content “in a manner that is directly comparable across types of securities.”²⁴⁸ This requirement speaks to the well-documented realization that identical credit ratings implied different default rates with different categories of securities. In the phenomena of “ratings drift,” a specified rating for a CDO tranche had a higher default probability than a corporate debt security of the same rating, which in turn had a higher default probability than a first-tier structured finance security of the same rating.²⁴⁹ By requiring ratings symbols to be directly comparable, Congress is attempting to shut down one of the key flaws in the ratings system for structured finance securities that both led

245. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(r)(3)).

246. See Sam Jones, Gillian Tett & Paul Davies, *CPDOs Expose Ratings Flaw at Moody’s*, FIN. TIMES, May 21, 2008, at 43; Sam Jones, *When Junk was Gold – Part 2*, FIN. TIMES MAG., Oct. 18, 2008, at 16.

247. Dodd-Frank Act § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(s)(1)(A)).

248. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(s)(2)).

249. See *supra* Part I.D.3.

users of ratings to underestimate the risk involved in complex securities and, more perniciously, allowed sponsors to arbitrage the ratings system. In addition to the new disclosure form, IRCRA Section 938, “Universal Ratings Symbols,” prohibits the use of the same rating symbols with different types of securities where different default probabilities apply.²⁵⁰ The SEC must promulgate rules requiring that CRAs apply any ratings symbol “in a manner that is consistent for all types of securities and money market instruments for which the symbol is used.”²⁵¹

New section 15E(s) also requires disclosure of key qualitative factors behind a rating. “[T]he main assumptions and principles used in constructing procedures and methodologies” must now be disclosed, “including qualitative methodologies and quantitative inputs and assumptions about the correlation of defaults across underlying assets used in rating structured products.”²⁵² As discussed above, wildly inaccurate correlation figures were essential to the ratings process.²⁵³ NRSROs must also list the potential limitations of their ratings and the risks they did not consider in producing a rating,²⁵⁴ disclose information concerning the uncertainty of a rating, including the reliability, accuracy and quality of the data relied on, and discuss the limits and reliability of historical data and the NRSRO’s ability to access documents and other information that would produce a better credit rating.²⁵⁵ These requirements obviously respond to failures in the data relied on to produce correlation figures used in structured finance ratings—because actual data on defaults of mortgages was not available, correlation equations acted as a substitute credit default swap prices on RMBSs. However, since these prices were only available from the past two decades, during times of rising home prices, default potentials were masked.²⁵⁶

Third, new Section 15E(s)(3)(A)(v) requires information concerning the use of due diligence services by NRSROs, and Section 15E(s)(4) requires issuers and underwriters to make such information publicly available and require the due diligence service provider to certify that it has “conducted a thorough review of the data,

250. Dodd-Frank Act § 938 (to be codified at 15 U.S.C. § 78o-8).

251. *Id.* § 938(a)(3) (to be codified at 15 U.S.C. § 78o-8(a)(3)).

252. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(s)(3)(A)(ii)).

253. *See supra* Part I.D.2.

254. Dodd-Frank Act § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(s)(3)(A)(iii)).

255. *Id.* § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(s)(3)(A)(iv)).

256. *See supra* notes 132-139 and accompanying text.

documentation and other relevant information necessary” to produce an accurate credit rating.²⁵⁷ This requirement responds to the well-documented lack of investigation of the creditworthiness of the assets underlying many real estate-backed structured finance securities and the lack of interest many investment banks and CRAs had in actually conducting such investigations.²⁵⁸ Finally, a NRSRO must provide an explanation of measure of the potential volatility of a rating, information on the historical performance of the rating and its expected default probability, as well as the sensitivity of the rating to the assumptions made by the NRSRO in producing it.²⁵⁹

In sum, new Section 15E(s) is a critical element of IRCRA, as it requires disclosure of information concerning many of the key categories of data that are now recognized to have been at the root of the flawed ratings system. Arguably, had such information been available to investors in structured finance securities many would have been much more wary of them, assuming they would, and could, incorporate such data into their decision-making.

C. THE LITIGATION LANDSCAPE

The third arrow in IRCRA’s quiver is the modification of the liability the CRAs face concerning claims brought by private plaintiffs under federal securities laws. While IRCRA makes a number of important changes to the legal landscape, its effects are still uncertain in some areas and likely to be equivocal in others. Professor John Coffee, who was involved in drafting Section 933 of IRCRA, “State of Mind in Private Actions,” indicates that while new Section 21D(b)(2) of the Exchange Act lowers the pleading requirements with respect to scienter for plaintiffs filing securities claims against the CRAs, the provision’s ultimate purpose is to encourage greater due diligence by CRAs, not to expose them to claims related to their structured finance activities that could result in crippling damages.²⁶⁰ The overall thrust of IRCRA with

257. Dodd-Frank Act § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(s)(4)(C)).

258. See SEC 2008 SUMMARY REPORT, *supra* note 51, at 18; Coffee, *Ratings Reform*, *supra* note 54, at 11-12 (observing that lack of verification of creditworthiness of mortgages “appears to have been driven less by the desire to economize on expenses than by a desire to suppress the ‘red flags’ that factual investigations would uncover . . .”).

259. Dodd-Frank Act § 932(a)(8) (to be codified at 15 U.S.C. § 78o-7(s)(3)(B)).

260. See Coffee, *Ratings Reform*, *supra* note 54, at 46-47.

regard to litigation therefore is complex; evaluation of the new landscape must take into account the existing provisions of federal securities law and the institutional context of the structured finance markets, as well as the possible final line of defense, the protection offered to the CRAs under the First Amendment as issuers of “opinions.” Part II.C.1 first reviews the basic framework of laws the CRAs operated in prior to the Dodd-Frank Act, and Part II.C.2 outlines the changes IRCRA makes to this framework.

1. The Pre-Existing Legal Framework

The CRAs have proven remarkably resistant to legal attacks relating to their role in the subprime crisis. While numerous lawsuits have been launched against them, and cracks have appeared in their First Amendment defense, as of the time of this writing there have been no judgments against them for their conduct in issuing structured finance ratings. Their ability to avoid liability rests on a few key provisions of federal law, as well as the difficulty of bringing state law claims for fraud or negligent representation in this context. Prior to the Dodd-Frank Act, there were two primary avenues through which a rating agency could potentially be found liable for its activities: Section 10 (and Rule 10b-5) of the Exchange Act and state law claims relating to fraud or negligent misrepresentation.²⁶¹ In addition, Section 11 of the Securities Act presented a third conceivable path to liability, but as Securities Act Rule 436(g) exempted ratings from the definition of “registration statement,” the likelihood of success was remote.²⁶² Plaintiffs bringing claims on any of these theories face hurdles none have yet been able to overcome, although in one case motions for summary judgment filed by the CRAs have been dismissed and the claims are proceeding.²⁶³ IRCRA offers significant modifications of the law with respect to the first and third avenues, at the same time that it does not address the CRAs’

261. See Bethel et al., *supra* note 78, at 35-36, 58-60; David J. Grais & Kostas Katsiris, *Not the “World’s Shortest Editorial”: Why the First Amendment Does Not Shield the Credit Ratings Agencies From Liability for Overrating CDOs*, BLOOMBERG LAW REPORTS, Nov. 2007.

262. See *infra* text accompanying notes 272-280.

263. *Anschutz Corp. v. Merrill Lynch & Co., Inc.*, 785 F. Supp. 2d 799, 827-28 (N.D. Cal. 2011) (denying motion to dismiss based on allegations that ratings of auction rate securities were false and misleading).

traditional line of defense under the First Amendment, thereby leaving its application to structured finance unsettled.

Rule 10b-5 of the Exchange Act states that:

It shall be unlawful for any person . . . (a) To employ any device, scheme, or artifice to defraud, (b) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or (c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security.²⁶⁴

In order for a fraud claim to succeed under Rule 10b-5, plaintiffs must allege that the defendant

1) Made misstatements or omissions of material fact; 2) with scienter, 3) in connection with the purchase or sale of securities; 4) upon which the plaintiffs relied; and 5) that the plaintiffs' reliance was the proximate cause of its injury.²⁶⁵

Furthermore, prior to IRCRA, under Section 21D(b)(2) of the Exchange Act, private plaintiffs bringing a case against the CRAs were required to “state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind” just as any other plaintiff subject to the Private Securities Litigation Reform Act would be.²⁶⁶ To bring a successful claim against a CRA for securities fraud then, a plaintiff would have to demonstrate that the defendant intended to defraud investors by issuing inflated ratings to structured finance securities. And in *Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, the Supreme Court specified that such an inference of scienter must be “more than merely plausible or reasonable—it must be cogent and at least as compelling as any opposing inference of nonfraudulent intent.”²⁶⁷ While such a claim is theoretically possible, collecting evidence of such a fraud would be very difficult, and absent a “smoking gun” such as an email between a rating agency and a client discussing a

264. 17 C.F.R. § 240.10b-5 (2011).

265. *Lentell v. Merrill Lynch & Co., Inc.*, 396 F.3d 161, 172 (2d Cir. 2005) (citing *In re Int'l Bus. Machines Corporate Sec. Litig.*, 163 F.3d 102, 106 (2d Cir. 1998)).

266. 15 U.S.C. § 78u-4(b)(2)(A) (2006).

267. *Tellabs, Inc. v. Makor Issues & Rights Ltd.*, 551 U.S. 308, 314 (2007).

plan to defraud through the issuance of inflated ratings, it would seem difficult, if not impossible, to prove. In any event, there have as of yet been no successful claims against the CRAs under either Rule 10b-5 or state common law fraud causes of action, while one such common law fraud claim has failed.²⁶⁸

State common law negligent misrepresentation doctrines also provide a possible cause of action against the CRAs. While there have as of yet been no final judgments on these claims, courts have come to different preliminary rulings in the cases filed so far. In *In re Merrill Lynch Auction Rate Securities Litigation*, the Southern District of New York dismissed a state law negligent misrepresentation claim on the grounds that ratings were opinions, and opinions are not actionable under negligent misrepresentation; the court also ruled that common law tort claims in the securities context are preempted by the Martin Act in New York, citing *Abu Dhabi*.²⁶⁹ In *Anschutz v. Merrill Lynch*, on the other hand, the Northern District of California allowed a claim of negligent misrepresentation to proceed under California law.²⁷⁰ In denying the CRAs' motion to dismiss for failure to state a claim under F.R.C.P. 12(b)(6), the court rejected Moody's, Standard & Poor's and Fitch's arguments that the state law claim was preempted by CRARA and that the First Amendment should shield them from all liability. In particular, the *Anschutz* court distinguished ratings given to structured finance securities, which were disseminated to a "limited group of investors," from those concerning matters of "public concern," which deserved the protection of the "actual malice" standard.²⁷¹

The third possible claim against the CRAs is far weaker and was recently rejected by the Second Circuit in *In re Lehman Brothers Mortgage-Backed Securities Litigation*.²⁷² Securities Act Section 11 provides for civil liability for untrue statements of material fact

268. *Abu Dhabi Commercial Bank v. Morgan Stanley & Co.*, 651 F. Supp. 2d 155, 171 (S.D.N.Y. 2009) (finding that the common law fraud claim fails and that a Rule 10b-5 analysis should be followed under N.Y. law).

269. *In re Merrill Lynch Auction Rate Sec. Litig.*, No. 09 Civ. 9888 (LAP), 2011 U.S. Dist. LEXIS 14053, at *36 n.6, *39 (S.D.N.Y. Feb. 9, 2011).

270. *Anschutz Corp. v. Merrill Lynch & Co. Inc.*, 787 F. Supp. 2d 799, 821-22 (N.D. Cal. 2011).

271. *Id.* at 831 (citing *Abu Dhabi Commercial Bank*, 651 F. Supp. 2d at 175; see also *California Pub. Emps' Ret. Sys. v. Moody's Corp.*, No. CGC-09-490241, 2010 BL 316863, at *8-9 (Cal. Sup. Ct. July 9, 2009) (rejecting First Amendment claims)).

272. 650 F.3d 167, 175-85 (2d Cir. 2010).

contained in a registration statement, or omissions of such facts, on the part of signers of the registration statement, directors or partners of the issuer, persons named in the registration statement as becoming a director or partner, experts furnishing opinions to be used in the registration statement and underwriters.²⁷³ There are two obvious hurdles to the application of Section 11 to the CRAs. First, the vast bulk of CDOs (in the narrow sense in which this term is used in this article) were issued under Rule 144A and traded in the OTC markets.²⁷⁴ This leaves publicly-traded MBSs as possible targets of a Section 11 claim, as they were the class of structured finance securities that had Section 11 registration statements in order to be publicly traded.²⁷⁵ Second, and more importantly, even in the case of registered MBSs, the obvious application of Section 11 against the CRAs was (and still is) blocked by Rule 436(g) of the Securities Act, which exempts credit ratings from being considered part of the registration statement.²⁷⁶

Because Rule 436(g) blocks plaintiffs from attacking the CRAs as experts under Section 11, the third path relies on the argument that the active involvement of the CRAs in structuring complex securities makes them statutory “underwriters” under the definition provided in Securities Act Section 2(a)(11) and attendant case law.²⁷⁷ Section 2(a)(11) specifies that “[t]he term ‘underwriter’ means any person who has purchased from an issuer with a view to, or offers or sells for an issuer in connection with, the distribution of any security, or participates or has a direct or indirect participation in such undertaking, or participates or has a participation in the direct or indirect underwriting of any such undertaking”²⁷⁸ While plaintiffs attempted to rely on seemingly expansive case law definitions of “underwriter” to support their claims in taking an active role in the structuring of securities, they faced the basic hurdle that even taking an active role in the structuring process that the CRAs allegedly engaged in did not approach the commonly

273. 15 U.S.C. § 77k(a) (2006).

274. See Bethel et al., *supra* note 78, at 35.

275. *Id.* at 40.

276. 17 C.F.R. § 230.436(g).

277. See *In re Lehman Bros.*, 650 F.3d at 184 n.11 (2d Cir. 2010) (“Perhaps it is because [Rule 436(g)], still in effect at the time the plaintiffs brought the instant lawsuits, prevented plaintiffs from suing the Rating Agencies under the ‘expert’ prong, that they urged new theories of liability under the ‘underwriter’ and ‘control person’ provisions.”).

278. 15 U.S.C. § 77b(a)(11).

understood role of the underwriter as one who purchases securities from an issuer with a view to resale.²⁷⁹ As a result, the Second Circuit rejected the argument that the CRAs were statutory underwriters, as has every other court faced with this argument.²⁸⁰

This brief review illustrates that the federal statutes and regulations in place prior to the passage of the Dodd-Frank Act, as well as the relevant case law, offer significant protection to the CRAs. In addition to the uphill battle plaintiffs face under the statutes and case law, the First Amendment may provide an additional defense should a plaintiff succeed in bringing an otherwise viable claim. In a number of cases prior to the credit crisis, the CRAs have successfully argued that the “actual malice” standard, which protects journalistic statements concerning public figures under the First Amendment, also protects issuing credit ratings.²⁸¹ Since they concern companies of widespread interest to investors and others, the argument runs, and because they are

279. The plaintiffs in *In re Lehman Bros.* used language from *SEC v. Kern*, 425 F.3d 143, 152 (2d Cir. 2005) (quoting *SEC v. Chinese Consul. Benevolent Ass’n*, 120 F.2d 738, 741 (2d Cir. 1941)) (stating that the term “underwriter” should be understood broadly “to ‘include any person who is ‘engaged in steps necessary to the distribution of security issues.’”). Despite the creative attempt to fit the CRAs in the 2(a)(11) definition of “underwriter,” the Second Circuit rejected the contention that “any persons playing an essential role in a public offering—including the Rating Agencies defendants—may be liable as underwriters.” *In re Lehman Bros.*, 650 F.3d at 177. Looking at both the language of the statute and case law, the Second Circuit determined that underwriters must play some role in “the distribution of securities, either through the purchase of securities from an issuer with a view towards distribution, the sale or offer of such securities by an issuer, or the underwriting of such undertakings.” *Id.* at 180.

280. For other cases rejecting the argument that the CRAs should be considered Section 11 underwriters, see *Plumbers’ Union Local No. 12 Pension Fund v. Nomura Asset Acceptance Corp.*, 632 F.3d 762, 776-77 (1st Cir. 2011); *In re IndyMac Mortg.-Backed Sec. Litig.*, 09 Civ. 4583 (LAK), 2010 U.S. Dist. LEXIS 63993, at *6 (S.D.N.Y. Feb. 5, 2010); *N.J. Carpenters Vacation Fund v. Royal Bank of Scot. Grp., PLC*, 720 F. Supp. 2d 254, 267-68 (S.D.N.Y. 2010); *Public Emps.’ Ret. Sys. of Miss. v. Merrill Lynch & Co.*, 714 F. Supp. 2d 475, 481-82 (S.D.N.Y. 2010).

281. See *Compuware Corp. v. Moody’s Investors Servs, Inc.*, 499 F.3d 520 (6th Cir. 2007), *Jefferson Cnty. Sch. Dist. v. Moody’s Investor’s Servs., Inc.*, 175 F.3d 848, 852-54 (10th Cir. 1999); *First Equity Corp. of Fla. v. Standard & Poor’s Corp.*, 690 F. Supp. 256 (S.D.N.Y. 1988). In testimony to the U.S. Senate Committee investigating the rating agencies in the wake of the Enron scandal, the Fitch’s general counsel, Charles Brown, stated that the ratings his agency issues are the “world’s shortest editorial.” See REP. OF THE STAFF TO THE S. COMM. ON GOVERNMENTAL AFFAIRS 96 (Oct. 8, 2002), available at hsgac.senate.gov/100702watchdogsreport.pdf.

fundamentally opinions and not falsifiable statements of fact, credit ratings are protected by the First Amendment. This understanding of credit ratings is commensurate with the pre-1970s business model of the CRAs, wherein ratings were published in manuals paid for and distributed to subscribers.²⁸² The CRAs have claimed that this understanding of ratings should also apply to their structured finance activities,²⁸³ but at least two courts so far have recognized important distinctions between ratings of structured finance vehicles and those at issue in the earlier cases where ratings activity was protected. First, and most importantly, the courts in *Abu Dhabi* and *Anschutz* rejected the argument that ratings of structured finance securities should be protected as “opinions” under First Amendment doctrine because these ratings, unlike those of the debt securities of publicly traded corporations, are not widely distributed.²⁸⁴ Second, the quantitative nature of the ratings process may call into question whether structured finance ratings are so indefinite as to qualify as opinions: the *Anschutz* court stated that

282. In fact, in *Jefferson City County School District and First Equity Corporation of Florida*, the ratings are distributed in a similar fashion. See *Jefferson Cnty. School Dist.*, 175 F.3d at 850; *First Equity Corp. of Fla.*, 650 F. Supp. at 256.

283. See, e.g., CONSTITUTIONAL ANALYSIS OF THE STAFF OUTLINE OF KEY ISSUES FOR A LEGISLATIVE FRAMEWORK FOR THE OVERSIGHT AND REGULATION OF CREDIT RATING AGENCIES 2 (Prepared by Cahill Gordon & Reindel LLP on behalf of Standard & Poor’s, a division of The McGraw-Hill Companies, Inc.) (discussing “the well-established First Amendment protections of S&P and other rating agencies engaged in the business of publishing non-personalized opinions around the world about matters of important public concerns, i.e., the creditworthiness of public companies and marketable securities.”).

284. *Abu Dhabi Commercial Bank v. Morgan Stanley & Co.*, 651 F. Supp. 2d 155, 171, 176 (S.D.N.Y. 2009) (“[W]here a rating agency has disseminated their ratings to a select group of investors rather than to the public at large, the rating agency is not afforded the same [First Amendment] protection . . .”) (quoting *Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc.* 472 U.S. 749, 761-62 (1985) (holding that a credit report issued to five parties did not qualify as a matter of public concern)); *Anschutz Corp.*, 2011 U.S. Dist. LEXIS 31691, at *82 (For purposes of a summary judgment motion by defendants, that plaintiff is not required to meet “the ‘actual malice’ standard for its misrepresentation claims” as ratings were only issued to a “select group of QIBs.”); see also *In re Nat’l Century Fin. Enters.*, 580 F. Supp. 2d 630, 639-40 (S.D. Ohio 2008). On the other hand, in rejecting the possibility of a claim of negligent misrepresentation made against the CRAs under California law, the Southern District of New York stated that since the ratings “were intended for QIBs generally,” they were not made to a “‘narrow and circumscribed’” group of individuals as required by a California negligent misrepresentation claim. See *In re Merrill Lynch Auction Rate Sec. Litig.*, No. 09 Civ. 9888 (LAP), 2011 U.S. Dist. LEXIS 14053, at *37 n.6 (S.D.N.Y. Feb. 9, 2011).

“nothing in the record at this stage suggests that the structured ARS ratings at issue are, in fact, predictive opinions by their nature ‘too indefinite’ to imply a false statement of fact.”²⁸⁵ In sum, the status of the First Amendment defense is uncertain as applied to structured finance ratings. Cracks have appeared, notably the rejections of motions for summary judgment in *Abu Dhabi* and *Anschutz*. As Professor Coffee notes, the question of whether the First Amendment protects the CRAs in this context will only be conclusively settled by the U.S. Supreme Court.²⁸⁶

2. Increased Exposure to Litigation Risk?

IRCRA makes two changes to the litigation landscape outlined above: First, Section 933, “State of Mind in Private Actions,” lowers the pleading bar to securities fraud suits against the CRAs and simultaneously offers the CRAs a safe harbor from such suits. Second, Section 939G nullifies Securities Act Rule 436(g).²⁸⁷ While these two provisions each have the potential to bring about important changes in the practice of generating credit ratings for structured finance securities, at this point neither provision appears to actually increase the litigation exposure the CRAs face. This is because in the case of Section 933, the safe harbor offered counterbalances any effects on the CRAs of the lowered pleading requirements, and in the case of Section 939G, the CRAs themselves have acted to prevent its implementation, at least temporarily.²⁸⁸ Should Section 939G be implemented, its potential consequences are great.

As discussed above, prior to the passage of the Dodd-Frank Act any claim against a rating agency was subject to the heightened pleading

285. *Anschutz Corp.*, 2011 U.S. Dist. LEXIS 31691, at *80. Again, there is contrary precedent on this point: the First Circuit states in *Plumbers’ Union* that as opinions, ratings are not actionable if they are honestly held when formed and later turn out to be inaccurate, or if the CRAs could have formed “better” opinions. *Plumbers’ Union*, 632 F.3d at 775. Although the First Circuit is discussing federal securities law claims, and does not invoke the First Amendment, its discussion is still relevant to the question of whether a structured finance rating is fundamentally a factual statement that can be right or wrong, or an “opinion.”

286. Coffee, *Ratings Reform*, *supra* note 54, at 27.

287. Dodd-Frank Act § 939G.

288. See *infra* notes 296-299 and accompanying text.

standards of the Private Securities Litigation Reform Act (“PSLRA”).²⁸⁹ Section 21D of the Exchange Act, enacted by the PSLRA, specifies that, for any claim seeking money damages “only on proof that the defendant acted with a particular state of mind, the complaint shall, with respect to each act or omission alleged to violate this title, state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind.”²⁹⁰ Section 933 of IRCRA, “State of Mind in Private Actions,” now carves out an exception to the heightened pleading requirement of 21D(b)(2), adding the following provisions applicable to CRAs alone:

(B) Exception.—In the case of an action for money damages brought against a credit rating agency or a controlling person under this title, it shall be sufficient, for purposes of pleading any required state of mind in relation to such action, that the complaint state with particularity facts giving rise to a strong inference that the credit rating agency knowingly or recklessly failed—

(i) to conduct a reasonable investigation of the rated security with respect to the factual elements relied upon by its own methodology for evaluating credit risk; or

(ii) to obtain reasonable verification of such factual elements (which verification may be based on a sampling technique that does not amount to an audit) from other sources that the credit rating agency considered to be competent and that were independent of the issuer and the underwriter.²⁹¹

This new pleading requirement for securities fraud cases against the CRAs has a dual effect: on the one hand, the level of scienter a plaintiff is required to demonstrate in a Rule 10b-5 complaint against a CRA is lowered dramatically. Instead of being required to paint a picture of specific intent to defraud, now all a plaintiff must show in a complaint is a knowing or reckless failure to examine the creditworthiness of the underlying assets in a structured finance security.²⁹² On the other hand, by listing two specific failures, either of which is sufficient for a

289. Pub. L. 104-67, 109 Stat. 737 (1995) (codified at scattered sections of 15 U.S.C.); see *supra* note 266 and accompanying text.

290. 15 U.S.C. § 78u-4(b)(2)(A) (2006).

291. *Id.* § 78u-4(b)(2)(B).

292. *Id.*

plaintiff to overcome a motion to dismiss, IRCRA offers the CRAs a safe harbor against such complaints: by documenting its due diligence efforts, such as obtaining a due diligence report from a firm such as Clayton Holdings, Inc. or the Bohan Group, Inc., a CRA can avoid being drawn into a securities fraud suit. As Professor Coffee notes, this provision functions as a safe harbor meant to incentivize more rigorous examination of the assets underlying a structured finance security.²⁹³ Section 933 therefore gives with one hand what the other takes away, lowering the bar to securities fraud actions against the CRAs while simultaneously providing them a valuable safe harbor from such suits.

The second major change IRCRA institutes with respect to litigation exposure is potentially much more far-reaching. Section 939G of the Dodd-Frank Act, “Effect of Rule 436(G),” nullifies Rule 436(g) of the Securities Act, which states that credit ratings “shall not be considered a part of the registration statement prepared or certified by a person within the meaning of sections 7 and 11 of the Act.”²⁹⁴ Section 939G furthers the policy of placing the CRAs on an equal footing with other experts in the offering process who function as gatekeepers to the capital markets, a policy expressed in Congressional Finding (3) to IRCRA, that “the activities of credit ratings are fundamentally commercial in character and should be subject to the same standards of liability and oversight as apply to auditors, securities analysts, and investment bankers.”²⁹⁵ While repeal of 436(g) is not relevant to the vast market of private offerings under Rule 144A where private offering memoranda are used for disclosure purposes, it does cover all public offerings using ratings disclosed in registration statements under the Securities Act, such as the publicly-offered MBSs discussed above. As a result, the effect of repeal of 436(g) is to expose the CRAs to lawsuits under Section 11 of the Securities Act, which subjects issuers, underwriters and experts to civil liability for misstatements or omissions in registration statements, using a strict liability standard.

Because of the far-reaching effects of Rule 436(g) nullification, the CRAs acted immediately upon passage of the Dodd-Frank Act to prevent its implementation. In the days prior to July 21, 2010, when President Obama signed the bill into law, the CRAs made it known that they would not consent to the inclusion of their ratings in ABS

293. See Coffee, *Ratings Reform*, *supra* note 54, at 27.

294. 17 C.F.R. § 230.436(g) (2011).

295. Dodd-Frank Act § 931(3).

registration statements.²⁹⁶ This had the effect of bringing the market for publicly-offered ABSs to a standstill because Regulation AB requires issuers to disclose the minimum ratings to be assigned to particular tranches, as well as the identity of the CRAs that will issue them.²⁹⁷ The SEC quickly backed down from a fight when the Ford Motor Company temporarily halted a planned issuance on July 20, with the director for corporation finance, Meredith Cross, issuing a statement that the SEC would not require consents of the CRAs to be included in registration statements, as Regulation AB requires.²⁹⁸ The no-action letter dated the same day was extended indefinitely on November 23, 2010.²⁹⁹ The current stay of the full consequences of 436(g) repeal indicates the power the CRAs hold over important sectors of U.S. capital markets, and ultimately uncertainty over whether fundamental changes to the regulatory structure involving credit ratings can actually be implemented.

The long-term effect of IRCRA's changes with respect to the liability faced by the CRAs is therefore uncertain. Due to the safe harbor offered by Section 933³⁰⁰, the CRAs should not expect an increase in liability for ratings under securities fraud actions; instead, they will most likely carefully document their investigation of the underlying assets their ratings are intended to assess, or ensure that the firm with which they contract to perform due diligence on the assets does so. Repeal of 436(g) is a more difficult issue, and presents a significant question for financial markets regulators: to what extent should, and can, the

296. See A. Shrivastava, *Ford Scuttles Debt Deal as Overhaul Chills Market*, WALL ST. J., July 21, 2010, at C.1.

297. See Regulation AB, 17 C.F.R. §§ 229.1103(a)(9), 229.1120.

298. Statement by SEC Staff: Statement Regarding the Registered Asset-Backed Securities Market, by Meredith Cross, July 22, 2010, available at <http://www.sec.gov/news/speech/2010/spch072210mc.htm>. The SEC also issued six compliance and disclosure interpretations ("CD&Is") to accompany the no-action letter. See generally D. Carbone, *The Impact of the Dodd-Frank Act's Credit Rating Agency Reform on Public Companies*, 24(9) INSIGHTS 19 (Sept. 2010); see also A. Shrivastava, *SEC Breaks Impasse With Rating Firms*, WALL ST. J., July 23, 2010, at C1; A. Shrivastava, *The SEC Steers Ford Back to ABS Market*, WALL ST. J., July 27, 2010, at C.7.

299. SEC Response of the Office of Chief Counsel Division of Corporation Finance, *Re: Ford Motor Company LLC, Ford Credit Auto Receivables Two LLC, Incoming Letter Dated July 22, 2010*, available at <http://www.sec.gov/divisions/corpfin/cf-noaction/2010/ford072210-1120.htm>.

300. Dodd-Frank Act § 933(b) (to be codified at 15 U.S.C. § 78o-7(m)).

government expose information service providers in the capital markets to liability for forecasts of future events? Given the failure of the ratings models detailed above in Parts I.C and I.D, it is clear the CRAs were at the very least negligent in allowing faulty quantitative models to be used by issuers; more likely, they turned a blind eye to signs of manipulation, and in some cases even aided their clients in such manipulative ratings arbitrage. What is not clear is the degree of danger that exposing the CRAs to massive liability for “expert” opinions under Securities Act Section 11 poses. Despite the failures of the CRAs, there are strong arguments that they provide a valuable service to the capital markets that would be impossible or grossly inefficient for even sophisticated individual investors to attempt to carry out inhouse.³⁰¹

D. IRCRA AS A RESPONSE TO INFORMATIONAL FAILURE

Part I above argues that the structured finance ratings fiasco was primarily a result of flawed ratings models that failed to take into account crucial problems with their data and assumptions, and the ability of CDO sponsors to arbitrage various differences between types of assets, as well as the value of assets in the open market versus their value supporting tranching securities. It also argues that it now appears the flaws embedded in real estate-backed CDOs were so great that a functioning lemons market will not arise, and that these CDOs can therefore be understood as “lemons in disguise.” Given this understanding of ratings failure, what is the significance of IRCRA? Part II.D concludes by considering IRCRA as a response to the failures discussed above, and suggesting the larger reasons its authors may have pursued an indirect approach.

1. IRCRA and the Technical Failures of the Ratings Process

With the passage of IRCRA, Exchange Act 15E is now a complex thicket of rules governing the CRAs. While the length and detail of the statute is significant, it is important to note that a number of even more complicated but arguably useful reform proposals put forward by

301. See, e.g., Coffee, *Ratings Reform*, *supra* note 54, at 54 (reminding advocates for reform “that credit rating agencies can play a socially useful and economically efficient role as informational intermediaries.”).

commentators have not been adopted by Congress.³⁰² Despite their detail, the provisions reviewed above are fairly straightforward and should be possible to implement if the SEC is able to provide the necessary resources. Most importantly, the new rules do not cross the line set forth in CRARA, that the SEC is not to dictate the “substance of credit ratings.”³⁰³ They instead pursue traditional securities law strategies of disclosure and liability, as well as new corporate governance mandates à la Sarbanes-Oxley, to prompt the CRAs to generate accurate ratings. How then will they remedy the three central flaws that generated the ratings failures? Is it likely that IRCRA can prevent a repeat of the ratings fiasco? And what does their response tell us about the regulatory strategy of the drafters of the bill?

The first major source of the flawed ratings was the flawed collateral filling the collateral pools of RMBSs and the CDOs holding RMBS tranches in turn. IRCRA contains a number of provisions to both incentivize the CRAs or their agents to actively assess the creditworthiness of the underlying assets. First, as just discussed, the CRAs are provided with a due diligence safe harbor regarding claims of scienter in securities fraud pleadings if they either “conduct a reasonable investigation of the rated security with respect to the factual elements relied upon by its own methodology for evaluating credit risk” or “obtain reasonable verification of such factual elements” from an independent source.³⁰⁴ Documentation of these processes now provides a safe harbor from such claims. Secondly, the form required to accompany credit ratings under new section 15E(s), “Transparency of credit rating

302. See, e.g., John Crawford, *CDO Ratings and Systemic Instability: Causes and Cure*, 7 N.Y.U. J. L. & BUS. 1 (2010) (proposing a ceiling on CDO ratings, either through an outright ban on the highest ratings or through linking the rating to the weighted average rating of the underlying collateral); Kia Dennis, *The Ratings Game: Explaining Rating Agency Failures in the Build Up to the Financial Crisis*, 63 U. MIAMI L. REV. 1111 (2009) (suggesting additional liability due to insufficient effect of reputational concerns on CRAs); Hunt, *supra* note 33 (proposing a quality-based approach, as opposed to a liability approach, to incentivize accurate ratings, including disgorgement of profits for inaccurate ratings); Yair Listoken & Benjamin Taibleson, *If You Misrate, Then You Lose: Improving Credit Rating Accuracy Through Incentive Compensation*, 27 YALE J. ON REG. 91 (2010) (advocating compensating CRAs in part through the debt they rate, with cash flows keyed to the accuracy of the ratings assigned).

303. Credit Rating Agency Reform Act § 4; 15 U.S.C. § 78o-7(c)(2).

304. Dodd-Frank Act § 933(b).

methodologies and information reviewed,”³⁰⁵ requires disclosure of information on the quality of data reviewed as well as any limits on accessing such data that might affect the uncertainty of the rating, as well as whether third party due diligence services were employed, and a description of their findings or conclusions. Finally, 15E(s)(4) requires ABS issuers to make public “the findings and conclusions” of any third party due diligence report, and the due diligence provider must provide a written certification that ensures that the firm conducts a “thorough review of the data, documentation, and other relevant information necessary for a nationally recognized statistical rating organization to provide an accurate rating.”³⁰⁶

While these provisions do not guarantee that flawed collateral will not go into CDOs, they should incentivize due diligence on the part of the CRAs. Given the benefit of the scienter safe harbor, it is likely firms will document carefully their due diligence activities. On the part of investors, the disclosure requirements are meant to stimulate demand for disclosure of data related to underlying assets. If the experience of the past decade is a useful guide, it is less certain that investors will demand such information—there was clearly a willingness on the part of investors to accept the imprimatur of a credit rating without asking further questions.³⁰⁷ Nonetheless, IRCRA attempts to prompt complete disclosure by creating investor demand for information concerning due diligence on the collateral and increased exposure to litigation risk if this is not carried out.

305. *Id.* § 932(a)(8).

306. *Id.*

307. In hindsight it appears that many investors simply relied on the judgment of the CRAs when they purchased CDO securities, without doing any due diligence themselves or even in some cases understanding the structure of these investments. *See* Mendales, *supra* note 19, at 1361 (“unregulated ratings for asset-backed securities became proxies for the full disclosure required by securities law.”). There also appears to have been a significant psychological element in investors’ reliance on ratings. *See* Frank Partnoy, *Historical Perspectives on the Financial Crisis: Ivar Kreuger, the Credit Rating Agencies, and Two Theories about the Function, and Dysfunction, of Markets*, 26 YALE J. ON REG. 431, 438 (Spring 2009); Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH U. L. REV. 211, 222 (2009); *see also* Erik Gerding, *Code, Crash, and Open Source: The Outsourcing of Financial Regulation to Risk Models and the Global Financial Crisis*, 84 WASH U. L. REV. 127 (2009) (on the tendency in various areas of financial regulation to rely on complex risk models as a contributing factor to the financial crisis).

The second key flaw discussed in Part I.D concerns correlation data. While this was likely the single most important technical flaw with the ratings models, IRCRA attempts to remedy it only through the rubric of disclosure: New Section 15E(s) requires that the form accompanying each rating include quantitative content relating to “the main assumptions and principles used in constructing procedures and methodologies, including qualitative methodologies and quantitative inputs and assumptions about the correlation of defaults across underlying assets”³⁰⁸ and “a statement relating to the extent to which data essential to the determination of the credit rating were reliable or limited, including . . . any limits on the scope of historical data.”³⁰⁹ Such disclosure specifically targets the failings of the correlation figures generated by the Gaussian copula formula.

Unlike its approach to the problem of flawed collateral, which incentivizes the CRAs themselves to investigate the underlying assets by offering a safe harbor from a heightened threat of litigation if they do so, here IRCRA only requires disclosure. At the same time, on the understanding of flawed ratings presented in Part I, technical flaws in the ratings models are the very germ of the ratings crisis. We will discuss below the possible wider significance of IRCRA’s failure to address the heart of the problem directly. It is important to note that IRCRA preserves CRARA’s injunction that the government may not “regulate the substance of credit ratings or the procedures and methodologies by which” ratings are generated,³¹⁰ and there may be good reasons for doing so, or at least reasons deeply embedded in the fabric of American financial regulation.

IRCRA’s approach to the third major problem, that the ratings models created significant arbitrage opportunities for sponsors, is likewise rather mild. The only provision which directly attacks ratings arbitrage is Section 938, “Universal Ratings Symbols.”³¹¹ In mandating that all ratings symbols be applied “in a manner that is consistent for all types of securities and money market instruments for which the symbol is used,” IRCRA should forestall the most basic type of arbitrage, where repackaging of assets alone yields higher value securities because of “ratings drift” across different classes of assets. On the other hand,

308. Dodd-Frank Act § 932(a)(8).

309. *Id.*

310. *See supra* note 210 and accompanying text.

311. Dodd-Frank Act § 938.

IRCRA does not address the more subtle type of arbitrage, whereby assets that the market recognizes as distressed are purchased and then used in structured finance vehicles because they carry a credit rating at variance with their market price.³¹² New section 15E(q), “Transparency of Ratings Performance,”³¹³ would conceivably capture such activity over time, as the performance of ratings eventually should reflect arbitrage activity, with sponsors profiting at the expense of investors as the assets in CDOs are downgraded or fail to yield the payments expected. But there is no direct attack on ratings arbitrage other than the requirement that ratings symbols carry with them consistent default probabilities.³¹⁴

2. *The Nature of IRCRA’s Response to Informational Failure*

What sort of response to informational failure does IRCRA offer, then? IRCRA approaches only the first of the three central problems from the side of both the CRAs and investors; it deals with the second, flawed correlation assumptions, through disclosure alone and the third, ratings arbitrage, through a mandate that covers only the simple variety of the problem. IRCRA’s response to the informational failures generated by the quantitative models used to rate complex securities is mild and ultimately indirect, offering far more carrot than stick. While this may be unsatisfying to the harsher critics of the CRAs, it is arguably the proper approach to take. In addition, many critics have focused on conflicted behavior on the part of the CRAs and the negative unintended consequences of the NRSRO designation, and they should be satisfied by the attention IRCRA focuses on these two very real problems.³¹⁵ It is

312. See *supra* Part II.C.3, text accompanying note 154.

313. Dodd-Frank Act § 932(a).

314. *Id.* § 938.

315. Examples of critics focusing on conflicts of interest include: Coffee, *Ratings Reform*, *supra* note 54; Dennis, *supra* note 302, at 1133; Timothy Lynch, *Deeply and Persistently Conflicted: Credit Rating Agencies in the Current Regulatory Environment*, 59 CASE W. RES. L. REV. 227 (2009); Joseph Stiglitz, *The Economic Crisis*, VANITY FAIR, Jan. 2009; see also SEC 2008 SUMMARY REPORT, *supra* note 51. Frank Partnoy is perhaps the most well-known critic of the NRSRO designation itself, see Partnoy, *Overdependence on Credit Ratings Was a Primary Cause of the Crisis*, available at <http://ssrn.com/abstract=1430653>, but others include Calomiris, see *supra* note 55.

important to emphasize, however, that in focusing on conflicts and the NRSRO designation, IRCRA neglects the root cause of ratings failure.

Why might the drafters have avoided a direct approach to the problem of flawed ratings? While an indirect approach might be thought to show a lack of determination to deal with a complex but very real problem, there are several strong reasons in its favor. First, to directly attack hypertechnical quantitative problems through legislation would seem to involve mandating the “substance of credit ratings.” A general policy behind American securities regulation is to offer as much leeway as possible to commercial activity and to police only behaviors that lead to fraud, market failure or otherwise create dangerous risks for the public.³¹⁶ Commensurate with this approach is the belief that investors bear a large measure of responsibility for the risks they assume, particularly those sophisticated investors who purchased the vast bulk of complex securities. While the story of the failure of structured finance does challenge the policy of caveat emptor even for QIBs and other sophisticated parties,³¹⁷ and the Dodd-Frank Act represents on the whole a massive extension of financial regulation, it remains of a piece with the general policies of American financial regulation. These policies entail the belief that information in the financial markets is most effectively provided by private actors, who themselves become key financial markets participants.

A second reason IRCRA fails to deal directly with the causes of ratings failure is that complex ratings models are arguably beyond the competence of legislators and regulators to govern.³¹⁸ One of the central challenges of regulating the contemporary financial system is its intrinsic complexity and the concomitant problem of specialization. Due to hypercomplexity, relatively few individuals possess in-depth

316. See generally James Landis, *The Legislative History of the Securities Act of 1933*, 28 GEO. WASH. L. REV. 29 (1959).

317. Professor Schwarcz points out that it was QIBs “who lost the most money in the recent financial crisis, much of it through bad investing.” Steven L. Schwarcz, *Essays from the Weil, Gotshal & Manges Roundtable on the Future of Financial Regulation, Yale Law School, February 13, 2009: Conflicts and Collapse: The Problem of Secondary-Management Agency Costs*, 26 YALE J. ON REG. 457, 469 (2009). See also Robert G. Gucwa, *The 2007 Collapse in Securitization: A Case for Regulatory Reform*, 14 N.Y.U. J. LEGISL. & PUB. POL’Y 245 (2011).

318. See Schwarcz, *supra* note 307, at 240; Saule T. Omarova, *Wall Street As Community of Fate: Toward Financial Industry Self-Regulation*, 159 U. PA. L. REV. 411, 431-438 (2011).

understanding of its various technical subsystems, and even fewer have a solid understanding of how the various interconnected elements of the financial system operate as a whole. To expect legislators and even career employees of the SEC and other regulatory bodies to understand the financial system at the level required to draft comprehensive technical legislation and especially regulations to implement that legislation may be asking too much in a hypercomplex world.

Third, even if the proper technical expertise were assembled to regulate in this area, there may be a more general psychological reason why legislators did not do so: imputing the failure of ratings to flawed technical systems is profoundly unsatisfying psychologically, as well as incomplete. The picture of ratings failure sketched above is complex: technical flaws were the germ of the problem, with opportunistic behavior on the part of the sponsors and a conflicted response on the part of the CRAs greatly exacerbating it. As a result, the causes of ratings failure include both purely mechanical flaws and the intentional manipulation of the ratings models. And the entire demand for ratings took place within the context of a regulatory system that required NRSRO-issued ratings for a broad range of financial activities. In addition to the difficulty of understanding how such a complex system could lead to such great financial disaster, politicians and the wider public most likely have a psychological need to impute the disaster to human agency.³¹⁹ Indeed, a proper understanding of the credit crisis identifies villains, even if it is the case here that the villains acted opportunistically upon discovering pre-existing flaws in the system, as opposed to constructing the entire system out of whole cloth in some pre-meditated plot. Nevertheless, the drafters of IRCRA were not misguided in targeting conflicts and misguided regulatory incentives. The analysis offered here is that the problems IRCRA targets are real, and that they greatly exacerbated the effect of the flawed ratings, but that IRCRA fails to target the *root cause* of the problem.

319. See Adam Benforado, *Don't Blame Us: How Our Attributional Proclivities Influence the Relationship Between Americans, Business and Government*, 5 *ENTREPREN. BUS. L. J.* 509 (2010). Although Benforado focuses on the manipulation by business of our psychological tendency to attribute misfortune to willful wrongdoing on the part of individuals, such a mechanism can also be manipulated by politicians and others.

CONCLUSION

The second and third reasons presented here explain and also to a large extent justify the regulatory approach taken by the drafters of IRCRA. It is not a perfect piece of legislation, but it should help avoid such failures in the future. As a concluding observation, the story of informational failures in structured finance presents economists, legal scholars, business ethicists and others attempting to understand what went wrong in this crucial corner of the financial system with an intellectual challenge analogous to the one regulators face. A key difficulty of understanding the operation of a system as complex as the modern financial machinery, both in its successes and failures, is the necessity of sorting out the multiple causes that are required to produce any one result. This article is an attempt to understand both intentional and unintentional causes that operated to produce flawed ratings, and explain the response of the U.S. Congress in light of this complex disaster.